# UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

|  |  | FOR  | 2M 10-K  |   |  |
|--|--|--|--|---|--|
| (Mark O  | ne)  |  |  |   |  |
| $\boxtimes$  |  |  |  |   |  |
|  |  | For the fiscal year  | ended December 31, 2009  |   |  |
|  |  |  | OR   |   |  |
| ☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 |  |  |  |   |  |
|  | For th   | e transition period from   | to   |   |  |
|  |  | Commission Fi  | le Number 001-34620  |   |  |
|  | IRO  | NWOOD PHAN<br>(Exact name of registra  | RMACEUTICALS, ant as specified in its charter)   | INC.  |  |
|  | Delaw<br>(State or other j<br>incorporation or                   | urisdiction of   | (I.R.S   | -3404176<br>5. Employer<br>ation Number)  |  |
|  | 320 Bent<br>Cambridge, Ma<br>(Address of Principal               | assachusetts   |  | <b>02141</b> ip Code)   |  |
|  | Reg  | istrant's telephone number   | , including area code: (617) 621   | -7722   |  |
| Securities   | s registered pursuant t  | o Section 12(b) of the Act   | :  |   |  |
|  | Title  | of each class  | Name of each exchange  | on which registered   |  |
|  | Class A common   | stock, \$0.001 par value   | The NASDAQ Sto<br>(NASDAQ Glo  |   |  |
| Securities   | s registered pursuant t  | o Section 12(g) of the Act   | None   |   |  |
|  | icate by check mark if  ☐ No ⊠                                   | the registrant is a well-kno   | own seasoned issuer, as defined  | in Rule 405 of the Securities   |  |
|  | icate by check mark if e Act. Yes \( \square \) No \( \square \) | the registrant is not requir   | ed to file reports pursuant to So  | ection 13 or 15(d) of the   |  |
| of the Se<br>was requ  | curities Exchange Act  | of 1934 during the preced  | as filed all reports required to be<br>ing 12 months (or for such shor<br>at to such filing requirements for | ter period that the registrant  |  |
| any, ever  | y Interactive Data File  | required to be submitted   | ubmitted electronically and post<br>and posted pursuant to Rule 40<br>Registrant was required to subn        | ted on its corporate Web site, if<br>15 of Regulation S-T during the<br>nit and post such |  |
| herein ar  | nd will not be containe  | d, to the best of registrant   | lers pursuant to Item 405 of Registers knowledge, in definitive proxy rany amendment to this Form            | or information statements   |  |
| filer or a   | smaller reporting com  | nether the registrant is a lapany. See definitions of "lb-2 of the Exchange Act. | arge accelerated filer, an acceler arge accelerated filer," "acceler   | ated filer, a non-accelerated ated filer" and "smaller                                    |  |
| Large ac   | celerated filer  | Accelerated filer □  | Non-accelerated filer (Do not check if a smaller reporting company)  | Smaller reporting company □   |  |

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

The registrant completed the initial public offering of its Class A common stock on February 8, 2010. Accordingly, there was no public market for the registrant's common stock as of June 30, 2009, the last business day of the registrant's most recently completed second fiscal quarter. As of March 15, 2010, there were 19,166,667 shares of Class A common stock outstanding and 78,291,122 shares of Class B common stock outstanding.

# TABLE OF CONTENTS

|          |   | Page |  |  |
|----------|---|------|--|--|
|          | PART I  |      |  |  |
| Item 1.  | Business  | 1    |  |  |
| Item 1A. | Risk Factors  | 19   |  |  |
| Item 1B. | Unresolved Staff Comments   |      |  |  |
| Item 2.  | Properties  | 42   |  |  |
| Item 3.  | Legal Proceedings   |      |  |  |
| Item 4.  | Reserved  | 42   |  |  |
|          | PART II   |      |  |  |
| Item 5.  | Market For Registrant's Common Equity, Related Stockholder Matters and Issuer         |      |  |  |
|          | Purchases of Equity Securities  | 43   |  |  |
| Item 6.  | Selected Consolidated Financial Data  |      |  |  |
| Item 7.  | Management's Discussion and Analysis of Financial Condition and Results of Operations | 46   |  |  |
| Item 7A. | Quantitative and Qualitative Disclosures About Market Risk                            | 69   |  |  |
| Item 8.  | Consolidated Financial Statements and Supplementary Data                              |      |  |  |
| Item 9.  | Changes in and Disagreements with Accountants on Accounting and Financial             |      |  |  |
|          | Disclosure  | 70   |  |  |
| Item 9A. | Controls and Procedures   | 70   |  |  |
| Item 9B. | Other Information   | 70   |  |  |
| Item 10. | Directors, Executive Officers and Corporate Governance                                | 71   |  |  |
| Item 11. | Executive Compensation  | 78   |  |  |
| Item 12. | Security Ownership of Certain Beneficial Owners and Management and Related            |      |  |  |
|          | Stockholder Matters   |      |  |  |
| Item 13. | Certain Relationships and Related Transactions, and Director Independence             | 99   |  |  |
| Item 14. | Principal Accountant Fees and Services  | 101  |  |  |
|          | PART IV   |      |  |  |
| Item 15. | Exhibits and Financial Statement Schedules  | 102  |  |  |
|          | Signatures  | 105  |  |  |
|          | Index to Consolidated Financial Statements  | F-1  |  |  |

#### PART I

#### Item 1. Business

#### **Our Company**

We are an entrepreneurial pharmaceutical company that discovers, develops and intends to commercialize innovative medicines targeting important therapeutic needs. Our goal is to build the next great pharmaceutical company, an outstanding business that will thrive and endure well beyond our lifetimes and generate substantial returns for our stockholders. In order to be successful, we will need to overcome the enormous challenges inherent in the pharmaceutical product development model. Developing a novel therapeutic agent can take a decade or more and cost hundreds of millions of dollars, and most drug candidates fail to reach the market. We recognize that most companies undertaking this endeavor fail, yet despite the significant risks and our own experiences with multiple failed drug candidates, we are enthusiastic and passionate about our mission to deliver differentiated medicines to patients. To achieve our mission, we are building a sustainable culture centered on creating and marketing important new drugs. If we are successful, we plan to reinvest a portion of our future cash flows into our research and development organization in order to accelerate and enhance our ability to bring new products to market. Our experienced team of researchers is currently focused on a portfolio of internally discovered drug candidates that includes one Phase 3 drug candidate (linaclotide), one Phase 1 pain drug candidate, and multiple preclinical programs.

We believe that linaclotide could present patients and healthcare practitioners with a unique therapy for a major medical need not yet met by existing therapies. Linaclotide is a first-in-class compound currently in confirmatory Phase 3 clinical trials evaluating its safety and efficacy for the treatment of patients with irritable bowel syndrome with constipation (IBS-C) or chronic constipation (CC). IBS-C and CC are gastrointestinal disorders that affect millions of sufferers worldwide, according to our analysis of studies performed by N.J. Talley (published in 1995 in the American Journal of Epidemiology), P.D.R. Higgins (published in 2004 in the American Journal of Gastroenterology) and A.P.S. Hungin (published in 2003 in Alimentary Pharmacology and Therapeutics) as well as 2007 U.S. census data. Linaclotide recently achieved favorable efficacy and safety results in two Phase 3 CC trials, meeting all 32 primary and secondary endpoints, including the improvement of abdominal symptoms such as bloating and discomfort as well as constipation symptoms, across both doses evaluated in these independent trials involving 1,287 subjects. We expect to have data from our Phase 3 IBS-C trials in the second half of 2010. If those trials are successful, we intend to file a New Drug Application, or NDA, with the Food and Drug Administration, or FDA, in the first half of 2011, seeking approval to market linaclotide to IBS-C and CC patients age 18 and older in the U.S. If linaclotide is approved for those indications, we may seek to expand linaclotide's market opportunity by exploring its utility in other gastrointestinal indications and in the pediatric population.

Linaclotide was designed by Ironwood scientists to target the defining attributes of IBS-C: abdominal pain, discomfort, bloating and constipation. Linaclotide acts locally in the gut with no detectable systemic exposure in humans at therapeutic doses. In the six Phase 2 and Phase 3 clinical trials we have completed to date in over 2,000 IBS-C and CC patients, linaclotide has demonstrated rapid and sustained improvement of the multiple symptoms of IBS-C and CC, with good tolerability and convenient once-daily oral dosing.

In a Phase 2b study in patients with IBS-C, linaclotide rapidly reduced abdominal pain, abdominal discomfort and bloating, and improved constipation symptoms, throughout the 12-week treatment period of the trial, with improvements noted for all symptoms assessed within the first week of initiation of therapy. In particular, abdominal pain was reduced 37% to 47%, and pain reduction was observed within the first week following initiation of therapy and was sustained throughout the treatment period, even among patients with severe or very severe abdominal pain.

In a Phase 2b study in patients with CC, linaclotide rapidly reduced abdominal discomfort and bloating, and improved constipation symptoms, throughout the 4-week treatment period of the trial.

In five of the six Phase 2 and Phase 3 studies, diarrhea was the most common adverse event (seen in 5% to 20% of subjects), and the most common cause for discontinuation in 1% to 7% of the patients in the trials. Diarrhea has generally been mild to moderate.

We have pursued a partnering strategy for commercializing linaclotide that has enabled us to retain significant control over linaclotide's development and commercialization, share the costs with high-quality collaborators whose capabilities complement ours, and retain approximately half of linaclotide's future long-term value in the major pharmaceutical markets, should linaclotide meet our sales expectations. To date, licensing fees, milestone payments, related equity investments and development costs received from our linaclotide partners total greater than \$250 million.

In September 2007, we entered into a partnership with Forest Laboratories, Inc., or Forest, to co-develop and co-market linaclotide in the U.S. Under the terms of the collaboration agreement, we and Forest are jointly and equally funding the development and commercialization of linaclotide in the U.S., with equal share of any profits. Forest also has exclusive rights to develop and commercialize linaclotide in Canada and Mexico, and will pay us royalties in the mid-teens on any net sales in these countries. In addition to having reimbursed us for half of linaclotide's development costs since September 2007, Forest has paid us \$100 million in license fees and milestone payments to date and has purchased \$25 million of our capital stock pursuant to the collaboration agreement. Remaining pre-commercial milestone payments could total up to \$105 million. If linaclotide is successfully developed and commercialized in the U.S., total licensing, milestone payments and related equity investments to us under the Forest collaboration agreement could total up to \$330 million, including the \$125 million that has already been paid to us. Unless terminated by either us or Forest for material breach, violation of law, bankruptcy or certain adverse changes of control of the other party, or by Forest for convenience, the collaboration agreement will continue in full force and effect with respect to each of the U.S., Canada and Mexico as long as we and Forest are developing or commercializing a product under the agreement.

In April 2009, we entered into a license agreement with Almirall, S.A., or Almirall, to develop and commercialize linaclotide in Europe (including the Commonwealth of Independent States countries and Turkey) for the treatment of IBS-C and other gastrointestinal conditions. Under the terms of the license agreement, Almirall has paid us \$38 million in license fees and milestone payments and has purchased \$15 million of our capital stock. Remaining pre-commercial milestone payments could total up to \$40 million. Almirall is responsible for activities and expenses relating to regulatory approval and commercialization in the European market. If Almirall receives approval to market and sell linaclotide in Europe, we will receive gross royalties which escalate based on sales volume in the territory, beginning in the mid-twenties, less the transfer price paid for the active pharmaceutical ingredient, or API. Unless terminated by either us or Almirall for material breach, violation of law or bankruptcy, by Almirall for convenience, or by us in the event of an adverse change of control of Almirall, the license agreement will continue in full force and effect on a country-by-country basis until Almirall is no longer developing or commercializing linaclotide in such country.

In November 2009, we entered into a license agreement with Astellas Pharma Inc., or Astellas, to develop and commercialize linaclotide for the treatment of IBS-C and other gastrointestinal conditions in Japan, South Korea, Taiwan, Thailand, the Philippines and Indonesia. Under the terms of the license agreement, Astellas paid us a \$30 million up-front licensing fee. Remaining pre-commercial milestone payments could total up to \$45 million. Astellas is responsible for activities and expenses relating to regulatory approval and commercialization in those markets. If Astellas receives approval to market and sell linaclotide, we will receive gross royalties which escalate based on sales volume in the territory, beginning in the low-twenties, less the transfer price paid for the API. Unless terminated in all or

certain countries by either us or Astellas for material breach or bankruptcy, by Astellas for convenience, or by us in the event of an adverse change of control of Astellas, the license agreement will continue in full force and effect until the later of (a) the last-to-expire valid claim of our patent rights for linaclotide in the countries listed above has expired or (b) Astellas is no longer developing or commercializing linaclotide in all of the countries listed above.

We have retained all rights to linaclotide outside of the territories discussed above.

In addition to five years of exclusivity under the Drug Price Competition and Patent Term Restoration Act of 1984, or the Hatch-Waxman Act, that would be granted if linaclotide is approved by the FDA, linaclotide is covered by a U.S. composition of matter patent that expires in 2025, subject to possible patent term extension. Linaclotide is also covered by an European Union composition of matter patent that expires in 2024, subject to possible patent term extension. A patent application is pending in Japan, and if issued, would expire in 2024.

We have multiple product candidates in earlier stages of development and are pursuing various therapeutic opportunities. We invest carefully in our pipeline, and the commitment of funding for each subsequent stage of our development programs is dependent upon the receipt of clear, positive data. In addition to linaclotide, our other clinical stage candidate is IW-6118, an inhibitor of Fatty Acid Amide Hydrolase, or FAAH, being evaluated for the treatment of pain and inflammation. In a Phase 1 study, IW-6118 demonstrated favorable pharmacokinetics and dose-related elevation of biomarkers suggesting that IW-6118 inhibits FAAH in humans. We are also conducting early stage, preclinical research on approximately eight therapeutic targets in gastrointestinal pain, inflammation and cardiovascular indications.

In addition, we are actively engaged in identifying externally-discovered drug candidates at various stages of clinical development and accessing them through in-licensing or acquisition. In evaluating potential assets, we apply the same criteria as those used for investments in internally-discovered assets. To date, we have not in-licensed any drug candidates, but we do expect to do so from time to time.

#### **Owner-related Business Principles**

Before investing in Ironwood, we encourage all potential new co-owners to read the owner-related business principles below that guide our overall strategy and decision making.

#### 1. We view our stockholders as partners and co-owners in our business.

With our cash on hand at December 31, 2009 of approximately \$123.1 million and up to \$190 million in pre-commercial milestone payments payable to us from linaclotide partners, the net proceeds from our intial public offering of approximately \$203.1 million, after deducting underwriting discounts and commissions and estimated offering expenses, should be sufficient to enable us to launch and commercialize linaclotide in the U.S. together with our partner Forest, and to fund our currently contemplated research and development efforts for at least the next five years, based on our current business plan. Since it is possible that we will not offer additional equity capital for a number of years, a priority of our initial public offering, or our IPO, was to augment our current stockholder group by adding additional, long-term focused co-owners, a goal that we believe we have accomplished. We will operate our business going forward with our stockholder partners' long-term interests in mind.

# 2. We believe we can best maximize long-term stockholder value by building a great pharmaceutical franchise.

We believe that Ironwood has the potential to deliver outstanding long-term returns to stockholders who: (i) are sober to the risks inherent in the pharmaceutical product development model and to the potential dramatic highs and lows along the way, and (ii) are comfortable with management's focus on superior long-term cash flows, instead of the steadiness or consistency of our short-term growth in accounting earnings.

Since the pharmaceutical product development cycle is lengthy and unpredictable, we believe it is critical to have a long-term strategic horizon. We work hard to embed our long-term focus into our policies and practices, which may give us a competitive advantage in attracting like-minded stockholders and the highest caliber researchers. Our current and future employees may perceive both financial and qualitative advantages in having their inventions or hard work result in marketed drugs that they and their fellow stockholders continue to own. Some of our key policies and practices that are aligned with this imperative include:

- a. Our dual class equity voting structure (which applies only in the event of change of control votes) is designed to concentrate change of control decisions in the hands of long-term focused owners who have a history of experience with us. Please read Note 14 to our consolidated financial statements for additional information regarding our capital structure.
- b. Compensation is weighted to equity over salary for all of our employees, and many employees have a significant portion of their incentive compensation in milestone-based equity grants that reward achievement of major value-creating events a number of years out from the time of grant.
- c. We have adopted a change of control severance plan for all of our employees that is intended to encourage them to bring forward their best ideas by providing them with the comfort that if a change of control occurs and their employment is terminated, they will still have an opportunity to share in the economic value that they have helped create for stockholders.
- d. All of the members of our board of directors are substantial investors in the company. Furthermore, each director is required to hold all shares of stock acquired as payment for his or her service as a director throughout his or her term on the board.
- e. Our partnerships with Forest, Almirall and Astellas all include standstill agreements, which serve to protect us from an unwelcome acquisition attempt by one of our partners. In addition, we have change of control provisions in our partnership agreements in order to protect the economic value of linaclotide should the acquirer of one of our partners be unable or unwilling to devote the time and resources required to make the program successful.

#### 3. We are and will remain careful stewards of our stockholders' capital.

We work intensely to allocate capital carefully and prudently, continually reinforcing a lean, cost-conscious culture.

While we are mindful of the declining productivity and inherent challenges of pharmaceutical research and development, we intend to invest in discovery research for many years to come. Our singular passion is to create and develop novel drug candidates, seeking to integrate the most successful drugmaking practices of the past and the best of today's cutting-edge technologies and basic research advances. While we hope to improve the productivity and efficiency of our drug creation efforts over time, our discovery process revolves around small, highly interactive, cross-functional teams. We believe that this is one area where our relatively small size is a competitive advantage, so for the foreseeable future, we do not expect our drug discovery team to grow beyond 100-150 scientists. We will continue to prioritize constrained resources and maintain organizational discipline. Once internally- or externally-derived candidates advance into development, compounds follow careful stage-gated plans, with further advancement depending on clear data points. Since most pharmaceutical research and development projects fail, it is critical that our teams are rigorous in driving to early go/no go decisions, following the data, terminating unsuccessful programs, and allocating scarce dollars and talent to the most promising efforts, thus enhancing the likelihood of late phase development success.

#### 4. We believe commercializing our drugs is a crucial element of our long-term success.

For the foreseeable future, we intend to play an active role in the commercialization of our products in the U.S., and to outlicense commercialization rights for other territories. We believe in the long-term value of our drug candidates, so we seek collaborations that provide meaningful economics and incentives for us and any potential partner. Furthermore, we seek partners who share our values, culture, processes, and vision for our products, which we believe will enable us to work with those partners successfully for the entire potential patent life of our drugs.

#### 5. Our financial goal is to maximize long-term per share cash flows.

Our goal is to maximize long-term cash flows per share, and we will prioritize this even if it leads to uneven short-term financial results from an accounting perspective. If and when we become profitable, we expect and accept uneven earnings growth. Our underlying product development model is risky and unpredictable, and we will not advance marginal development candidates or consummate suboptimal in-license transactions in an attempt to fill anticipated gaps in revenue growth. Successful drugs can be enormously beneficial to patients and highly profitable and rewarding to stockholders, and we believe strongly in our ability to occasionally (but not in regular or predictable fashion) create and commercialize great medicines that make a meaningful difference in patients' lives.

If and when we reach profitability, we do not intend to issue quarterly or annual earnings guidance, however we plan to be transparent about the key elements of our performance, including near-term operating plans and longer-term strategic goals.

### **Our Strategy**

Our goal is to build the next great pharmaceutical company by discovering, developing and commercializing innovative and differentiated medicines that target important unmet needs. Key elements of our strategy include:

- attract and incentivize a team with a singular passion for creating and commercializing medicines that can make a significant difference in patients' lives;
- successfully commercialize linaclotide in collaboration with Forest in the U.S.;
- support our international partners to commercialize linaclotide outside of the U.S.;
- if approved for IBS-C and CC, develop linaclotide for the treatment of other gastrointestinal disorders and for the pediatric population;
- invest in our pipeline of novel product candidates and evaluate candidates outside of the company for in-licensing or acquisition opportunities;
- participate in a meaningful way in the economics of the drugs that we bring to the market; and
- execute our strategy with our stockholders' long-term interests in mind by seeking to maximize long-term per share cash flows.

### Linaclotide

Overview

The gastrointestinal tract has many roles in human physiology, including the intake, breakdown and absorption of vital nutrients and fluids as well as the elimination of waste. In healthy individuals, waste is formed into stools and eliminated by the process of bowel movements. Bowel movements in healthy individuals cause minimal pain or discomfort and occur at various frequencies ranging from three times daily to three times weekly. IBS-C and CC are functional gastrointestinal disorders that

afflict millions of sufferers worldwide. IBS-C is characterized by frequent and recurrent abdominal pain and/or discomfort and constipation symptoms (e.g. infrequent bowel movements, hard/lumpy stools, straining during defecation). CC is primarily characterized by constipation symptoms, but a majority of these patients report experiencing bloating and abdominal discomfort as among their most bothersome symptoms. Available treatment options primarily improve constipation, leading healthcare providers to diagnose and manage IBS-C and CC based on stool frequency. However, patients view these conditions as multi-symptom disorders, and while laxatives can be effective at relieving constipation symptoms, they do not necessarily improve abdominal pain, discomfort or bloating, and can often exacerbate these symptoms. This disconnect between patients and physicians, amplified by patients' embarrassment to discuss all of their gastrointestinal symptoms, often delays diagnosis and may compromise treatment, possibly causing additional suffering and disruption to patients' daily activities.

IBS-C and CC are chronic conditions characterized by frequent and bothersome symptoms that dramatically affect patients' daily lives. We believe that gastro esophageal reflux disease, or GERD, serves as a reasonable analogue to illustrate the potential for a treatment that effectively relieves chronic gastrointestinal symptoms. Based on a study performed by M. Camilleri published in 2005 in Clinical Gastroenterology and Hepatology and 2007 U.S. census data, we estimate that in 2007, approximately 40 million people in the U.S. suffered from GERD. The typical GERD sufferer, who experiences frequent episodes of heartburn poorly controlled by over the counter products, will commonly seek medical care and is generally treated with a proton pump inhibitor, such as Prilosec (omeprazole), Nexium (esomeprazole magnesium), Prevacid (lansoprazole), or Protonix (pantoprazole). According to IMS Health, peak sales of the proton pump inhibitor class reached \$12.8 billion in November 2007. The proton pump inhibitors generally provide relief of key heartburn symptoms within the first week of treatment and have a favorable safety and tolerability profile. Once GERD patients experience relief of heartburn, they tend to be highly adherent to therapy, taking a proton pump inhibitor for approximately 200 days a year, according to IMS Health. The relief of bothersome symptoms and the recurrence of symptoms following discontinuation, serve to reinforce patient adherence to chronic therapy for functional disorders, like GERD, IBS-C and CC.

### U.S. IBS-C and CC Opportunity

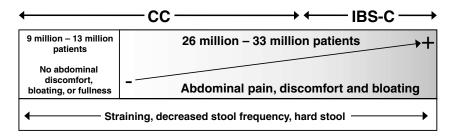
Based on the Talley and Higgins studies, studies performed by F.A. Luscombe (published in 2000 in *Quality of Life Research*) and J.F. Johanson (published in 2007 in *Alimentary Pharmacology and Therapeutics*), and 2007 U.S. census data, we estimate that in 2007, approximately 35 million to 46 million people in the U.S. suffered from symptoms of IBS-C and CC, of whom between 9 million to 15.5 million patients sought medical care. As a result of the less than optimal treatment options currently available, patients seeking care experienced a very low level of satisfaction. Due to patients' lack of satisfaction with existing treatment options, about 70% of patients stop prescription therapy within one month, according to IMS Health. It is estimated that patients seek medical care from five or more different healthcare providers over the course of their illness with limited or no success, as shown in a 2009 study by D.A. Drossman in the *Journal of Clinical Gastroenterology*. Many of the remaining patients are too embarrassed to discuss the full range of their symptoms, or for other reasons do not see the need to seek medical care and continue to suffer in silence while unsuccessfully self-treating with fiber, OTC laxatives and other remedies which improve constipation, but often exacerbate pain and bloating.

Irritable Bowel Syndrome with Constipation. Based on the Talley study and 2007 U.S. census data, we estimate that in 2007, approximately 12 million people or 5.2% of the U.S. adult population suffered from symptoms associated with IBS-C. As shown in a study conducted by the International Foundation of Functional Gastrointestinal Disorders, or IFFGD, in 2002, almost 35% of all IBS-C patients report suffering from some related symptoms daily. Based on this data and the Luscombe study, we estimate that up to 7 million of these patients sought medical attention for their symptoms.

Based on the Talley, Luscombe and Johanson studies and 2007 U.S. census data, we estimate that between 5 million to 9 million sufferers have not consulted a physician and attempt to manage their symptoms with over the counter fiber and laxatives. Patients with IBS-C who seek medical care receive either a recommendation from their physician for an over the counter product or a prescription medication. As shown in a study conducted by the IFFGD in 2007, for all treated IBS-C patients, there continues to be a low rate of satisfaction with relief of their symptoms, with 92% of patients reporting that they are not fully satisfied with their treatments; and 77% of patients reporting that they were unsatisfied with overall care by their physician.

Chronic Constipation. Based on the Higgins study and 2007 U.S. census data, we estimate that in 2007, 23 million to 34 million people, or 10% to 15% of the U.S. adult population, were suffering from CC. Based on this data and the Johanson study, we estimate that of the total CC sufferers, only 6 million to 8.5 million patients suffering from CC sought medical care. Almost all of these patients, whether or not seeking medical care for their symptoms, took an over the counter or prescription treatment, or both. Similar to IBS-C, there continues to be a low rate of treatment satisfaction, with over 70% of those taking over the counter and prescription laxatives reporting that they are not fully satisfied with their treatment results as shown in the Johanson study.

As shown in the figure below, according to L.E. Brandt in a study published in 2005 in the *American Journal of Gastroenterology*, the symptoms underlying both disorders can be viewed on a continuum. During a consultation, patients will often discuss only the predominant symptom making it difficult for physicians to effectively diagnose and treat. For most patients, constipation is also accompanied by a set of symptoms broader than straining and infrequency of bowel movements. Given the limitations of available treatment options in addressing multiple symptoms, physicians tend to focus on the most easily treatable symptom, constipation. Our market research suggests that most physicians view abdominal pain and bloating as difficult to treat. We believe that linaclotide's profile could offer health care providers the opportunity to identify, diagnose, and treat the other important symptoms experienced by IBS-C and CC patients.



*IBS-C and CC Opportunity Outside of U.S.* We believe that the prevalence rates of IBS-C in Europe and Japan are similar to the prevalence rates in the U.S.

Burden of Illness. Both IBS-C and CC adversely affect the quality of life of patients, leading to increased absenteeism from work or school and increased costs to the healthcare system. According to both a study by A.P.S. Hungin published in 2005 in Alimentary Pharmacology & Therapeutics and the Johanson study, patients with IBS-C and CC reportedly suffer from their symptoms on average 166 and 97 days per year, respectively, and, according to the Drossman study, over one third have experienced their symptoms for more than ten years. In a typical month, IBS-C and CC patients will miss an average of one to three days of school or work, according to Johanson's study and a study by B. Cash published in 2005 in The American Journal of Medical Care, and their productivity will be disrupted an additional four to five days per month, according to the Cash study. When the level of suffering becomes acutely overwhelming for patients, they seek care at an ambulatory care facility. In 2004, CC was the second most common cause for ambulatory care visits after GERD, according to a 2008 article by J.E. Everhart published in Functional Intestinal Disorders. According to the Everhart article, CC

accounted for 6.3 million ambulatory care visits (when considered as part of any listed diagnosis) and IBS accounted for 3 million ambulatory care visits. Estimates of the indirect and direct costs associated with these conditions range upwards of \$25 billion, according to a study published in 2000 by M. Camilleri and D.E. Williams in *Pharmacoeconomics*.

Treatment Options for IBS-C and CC. By the time patients seek care from a physician, they have typically tried a number of available remedies and remain unsatisfied. Most IBS-C and CC patients initially attempt self-treatment with over the counter medications such as laxatives, stool softeners or fiber supplementation, as well as attempts to modify their diet. While some of these therapies offer limited success in transit-related symptoms, they offer little to no effect on other bothersome symptoms from which patients are suffering. Unfortunately, physicians have very limited treatment options beyond what is readily available to the patient alone. Physicians typically rely on fiber and laxatives, which can exacerbate bloating and abdominal pain, the same symptoms from which many patients are seeking relief and which are the most troubling to treat. In an attempt to help alleviate the more severe abdominal symptoms associated with IBS-C and CC, healthcare providers sometimes prescribe medications that have not been approved by the FDA for these indications, such as anti-depressant or antispasmodic agents.

Polyethylene glycol, or PEG (such as Miralax), and lactulose, account for the majority of prescription and over the counter laxative treatments. Both agents demonstrate an increase in stool frequency and consistency but do not improve bloating or abdominal discomfort. Clinical trials and product labels document several adverse effects with PEG and lactulose, including exacerbation of bloating, cramping and, according to the Brandt study, up to a 40% incidence of diarrhea. Overall, up to 75% of patients taking prescription laxatives report not being completely satisfied with the predictability of when they will experience a bowel movement on treatment, and 50% were not completely satisfied with relief of the multiple symptoms associated with constipation, according to the Johanson study.

In 2002, the FDA approved Zelnorm, the first new drug for the treatment of IBS-C, and in 2004, Zelnorm was approved for the treatment of CC. Zelnorm is a serotonin 5-HT4 receptor agonist, with a mechanism of action completely separate and distinct from the mechanism of action underlying linaclotide's activity. As a newly available treatment option to potentially address some of the symptoms beyond the scope of laxatives and fiber, Zelnorm achieved great success in raising patient and physician awareness of IBS-C and CC. During the five years that Zelnorm was promoted, total prescriptions in the category grew three fold, and in 2006, there were more than 16 million total prescriptions written for treating patients with IBS-C and CC, according to IMS Health. Prior to its withdrawal, in 2006, Zelnorm total sales were approximately \$561 million. In 2007, Zelnorm was withdrawn from the market by its manufacturer due to an analysis that found a higher chance of heart attack, stroke and chest pain in patients treated with Zelnorm as compared to placebo. Despite modest effectiveness relieving abdominal pain (1% to 10% of patients responding to treatment as compared to placebo) and bloating (4% to 11% of patients responding to treatment as compared to placebo) as described on the Zelnorm product label, Zelnorm succeeded in establishing a symptom-based approach highlighting the need to recognize and treat, on a chronic basis, both the abdominal and constipation symptoms afflicting these patients.

Currently, the only available prescription therapy for IBS-C and CC is Amitiza, which was approved for the treatment of CC in 2006, and for IBS-C in 2008. Amitiza sales have been modest in comparison to Zelnorm sales prior to its withdrawal from the market, according to IMS Health.

Although a significant unmet need exists for better treatments for IBS-C and CC, we believe that there are very few treatments in late-stage clinical development. The most recent entrant to the CC marketplace, solely in Europe, is Resolor (prucalopride). Resolor was recently approved by the European Medicines Agency and is indicated for the treatment of CC in women for whom laxatives have failed to provide adequate relief. Resolor, which will be marketed by Movetis, is a serotonin 5-HT4 receptor agonist like Zelnorm. Johnson & Johnson has U.S. rights to prucalopride. Currently, we believe there is only one compound in late stage clinical development, velusetrag (being developed by Theravance), which is also a serotonin 5-HT4 receptor agonist like Zelnorm, and which has completed Phase 2 trials for CC. We believe that there are a number of earlier stage compounds in development.

The Linaclotide Opportunity. Based on the Talley, Luscombe, Johanson and IFFGD studies and 2007 U.S. census data, we believe that there are over 10 million IBS-C and CC patients in the U.S. who suffer from multiple symptoms, are actively seeking therapy and are dissatisfied with current treatment options. Moreover, physicians overwhelmingly report a need for an efficacious treatment with demonstrated safety that can provide rapid, convenient, and effective multi-symptom relief, relieving abdominal pain and discomfort, bloating and constipation symptoms.

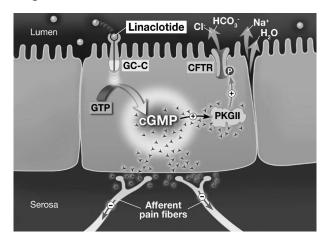
Linaclotide is a unique and promising potential treatment for patients suffering from both abdominal and constipation symptoms related to IBS-C and CC. Based on the clinical profile we have observed to date, we believe linaclotide is well positioned to provide IBS-C and CC patients with much needed reduction in abdominal and constipation symptoms, with a low incidence of adverse events, and a convenient once daily, oral dosing regimen.

#### **Mechanism of Action**

The underlying causes of the abdominal pain, discomfort and bloating suffered by patients with lower gastrointestinal disorders like IBS-C and CC are poorly understood. Further, because current therapeutic agents offer limited improvement in these symptoms, there has been limited medical research in this area. Since our clinical studies indicate that linaclotide provides rapid and sustained improvement of these symptoms, we have invested significant effort to define the mechanisms of linaclotide's physiological effects.

Linaclotide is a 14 amino acid peptide agonist of guanylate cyclase type-C, or GC-C, a receptor found on the epithelial cells that line the intestine. Activation of GC-C leads to increases in intracellular and extracellular cyclic guanosine monophosphate, or cGMP, levels. cGMP is a well characterized "second messenger" that relays and amplifies signals received at receptors on the cell surface to target molecules in the cytosol and/or nucleus of a cell. We believe increased cGMP has dual effects on intestinal function. First, as the figure below shows, cGMP can exit the epithelial cells to block pain signaling by inhibiting the pain-sensing neurons that carry signals from the gastrointestinal tract to the central nervous system (afferent pain fibers). Second, cGMP can remain inside the epithelial cell to activate protein kinase GII, or PKGII, which activates the protein Cystic Fibrosis Transmembrane conductance Regulator, or CFTR, by phosphorylation, or P, to stimulate electrolyte

 $(Na^+ = sodium, Cl^- = chloride, and HCO_3^- = bicarbonate)$  and fluid  $(H_2O = water)$  secretion into the intestinal lumen. The resulting increase in intestinal fluid volume accelerates intestinal transit.



Our preclinical work supports the above model for the actions of linaclotide. Regarding the effect on pain sensation, we have found that increased extracellular cGMP inhibited noxious-stimulus-induced firing of afferent pain fibers. In addition, oral dosing with either linaclotide or directly with cGMP significantly reduced abdominal pain responses in a number of preclinical models. While much work remains to be done, we hypothesize that the reduction in abdominal pain, abdominal discomfort, and visceral hypersensitivity seen both preclinically and clinically is a result of increased extracellular cGMP, which may reduce firing of pain-sensing neurons and thus decrease sensitivity to otherwise painful stimuli.

Additionally, in other preclinical studies, linaclotide was shown to increase intracellular cGMP, leading to activation of channels in intestinal cell membranes that resulted in the secretion of ions and fluid out of intestinal cells and into the intestinal lumen. Increased fluid in the intestinal lumen causes accelerated intestinal transit.

Importantly, linaclotide's effects on pain sensation and gastrointestinal transit/secretion are dependent on the presence of the GC-C receptor; in preclinical experiments where the GC-C receptor was genetically deleted, the effects of linaclotide on pain sensation and secretion were eliminated.

The binding and activity of linaclotide at the GC-C receptor is highly specific. Linaclotide has no effect on the serotonin system, unlike Zelnorm, Resolor, cisapride (Propulsid, which was approved for heartburn caused by GERD), or alosetron (Lotronex, which was approved for irritable bowel syndrome with diarrhea), each of which work through serotonin receptors in the intestine. Zelnorm, Propulsid and Lotronex were all withdrawn from the market because of safety concerns.

#### Clinical

We are conducting a comprehensive clinical program consisting of 13 studies in over 4,600 people. Nine of the studies have been completed; three in healthy volunteers, two in IBS-C patients, and four in CC patients. Additionally, two Phase 3 studies in IBS-C patients and two long-term safety studies are ongoing.

#### Sales and Marketing

For the foreseeable future, we intend to develop and commercialize our drugs in the U.S. alone or with partners, while out-licensing commercialization rights for other territories. In executing our strategy, our goal is to retain significant control over the development process and commercial

execution for our products, while participating in a meaningful way in the economics of all drugs that we bring to the market.

We plan to develop our commercial organization around linaclotide, with the intent to leverage this organization for future products. To deliver on our strategy, we intend to create a high-quality commercial organization dedicated to bringing innovative, highly-valued healthcare solutions to our customers, including patients, payors, and healthcare providers.

Maximizing the Value of Linaclotide in the U.S.

Our commercial strategy for linaclotide, if approved, will be to establish linaclotide as the prescription product of choice for both IBS-C and CC. We, together with our U.S. commercialization partner Forest, plan to build awareness that patients suffer from multiple, highly bothersome symptoms of IBS-C and CC, and that these symptoms can dramatically impair sufferers' quality of life.

Forest has demonstrated the ability to successfully launch innovative products, penetrate primary care markets and drive the growth of multiple brands in highly competitive markets. Forest brings large and experienced sales, national accounts, trade relations, operations and management teams providing ready access to primary care offices and key managed care accounts. We have strong alignment with Forest and a shared vision for linaclotide. The combined marketing team possesses a deep understanding of gastroenterology and primary care customers, and this knowledge will be leveraged to craft a compelling medical message and promotional campaign.

Maximizing the Value of Linaclotide Outside the U.S.

We have out-licensed commercialization rights for territories outside of the U.S. to Almirall in Europe and Astellas in Japan, South Korea, Taiwan, Thailand, the Philippines and Indonesia.

In April 2009, we entered into a licensing agreement with Almirall to develop and commercialize linaclotide in Europe (including the Commonwealth of Independent States countries and Turkey) for the treatment of IBS-C and other gastrointestinal conditions. Under the terms of the license agreement, Almirall has paid us \$53 million, which included a \$38 million up-front licensing fee paid upon execution of the license agreement. Remaining pre-commercial licensing fees, milestone payments and related equity investments could total up to \$40 million. In addition, we will receive escalating royalties on linaclotide sales should Almirall receive approval to market and sell linaclotide in Europe. Almirall is responsible for activities and expenses relating to regulatory approval and commercialization in the European market.

Almirall provides access to the highest potential European markets with an established sales presence in each of the United Kingdom, Italy, France, Germany and Spain, and also has a presence in Belgium, Poland, Portugal and Switzerland. Almirall plans to coordinate sales and marketing efforts from its central office in an effort to ensure consistency of the overall brand strategy and objectively assess performance. Almirall's knowledge of the local markets should help to facilitate regulatory access, reimbursement and market penetration through a customized approach to implementing promotional and selling campaigns in the European Union.

In November 2009, we entered into a licensing agreement with Astellas to develop and commercialize linaclotide for the treatment of IBS-C and other gastrointestinal conditions in Japan, South Korea, Taiwan, Thailand, the Philippines and Indonesia. Under the terms of the license agreement, Astellas paid us a \$30 million up-front licensing fee. Remaining pre-commercial milestone payments could total up to \$45 million. Astellas is responsible for activities and expenses relating to regulatory approval and commercialization in those markets. If Astellas receives approval to market and sell linaclotide, we will receive escalating royalties on linaclotide sales.

Astellas is one of Japan's largest pharmaceutical companies and has top commercial capabilities in both primary care and specialty categories throughout Asia. Their demonstrated ability to market innovative medicines and their growing gastrointestinal franchise in Japan make them an ideal partner for Ironwood.

### **Pipeline Strategy**

We invest significant effort defining and refining our research and development process and teaching internally our approach to drug-making. We favor programs with early decision points, well validated targets, predictive preclinical models, initial chemical leads and clear paths to approval, all in the context of a target product profile that can address significant unmet or underserved clinical needs. We emphasize data-driven decision making, strive to advance or terminate projects early based on clearly defined go/no go criteria, prioritize programs at all stages and fluidly allocate our capital to the most promising programs. We continue to work diligently to ensure this disciplined approach is ingrained in our culture and processes and expect that our research productivity will continue to improve as our team gains more experience and capabilities. Moreover, we hope that as our passion and style of drug-making becomes better validated and more widely known, we will be able to attract additional like-minded researchers to join our cause.

To date, all of our product candidates have been discovered internally. We believe our discovery team has created a number of promising candidates over the past few years and has developed an extensive intellectual property estate in each of these areas. In addition we are actively seeking to identify attractive external opportunities. We utilize the same critical filters for investment when evaluating external programs as we do with our own, internally-derived candidates.

## **Pipeline**

We aim to create differentiated, first-in-class/best-in-class medicines that provide relief and clear therapeutic benefits to patients suffering from chronic diseases. To support this vision, we have ongoing efforts to identify product candidates that strengthen our pipeline, including treatments for upper gastrointestinal disorders, pain and inflammation, asthma and allergic disease, and cardiovascular disease.

An example of one of our internally discovered candidates meeting the above criteria is IW-6118, a novel mechanism agent for the treatment of pain that acts by inhibiting the enzyme Fatty Acid Amide Hydrolase, or FAAH. There remains a substantial unmet need for drugs with improved efficacy and side-effect profiles to manage pain, and we believe few novel mechanism agents to treat pain are in clinical development. FAAH metabolizes bioactive lipid molecules, known as fatty acid amides, or FAAs, that have important analgesic and anti-inflammatory properties. Inhibition of FAAH has been shown preclinically to increase levels of FAAs, reduce pain sensation, and decrease inflammation, indicating that FAAH inhibitors could provide an innovative means to provide pain relief in humans.

IW-6118 is a novel small molecule inhibitor of FAAH, that decreased inflammation and pain and elevated FAAs in preclinical models. We have an active investigational new drug application, or IND, for IW-6118 and are currently investigating the safety, tolerability, and pharmacokinetic properties of this molecule in Phase 1 studies. In addition, the effects of IW-6118 on the plasma levels of FAAs are also being assessed. Our data indicate that IW-6118 has favorable pharmacokinetics and that IW-6118 dosing elevates FAAs, suggesting that this molecule effectively inhibits FAAH in humans.

### Manufacturing and Supply

We do not have manufacturing capabilities, and we currently use contract manufacturers for the manufacturing of linaclotide API and our other product candidates. Accordingly, unless or until we develop or acquire sufficient manufacturing capabilities, we will depend on third parties to manufacture

linaclotide API and any future products that we may develop or acquire. We are in the process of seeking long-term commercial supply contracts with two API manufacturers, and we anticipate that we will be able to negotiate these third-party agreements on commercially reasonable terms. We believe both manufacturers have the capabilities to produce linaclotide API in accordance with current good manufacturing practices, or GMP, on a sufficient scale to meet our commercial needs. It is a fundamental part of our commercial strategy to maintain two or more API suppliers to ensure continuity in our supply chain. In addition, we have in-house expertise to manage our two contract manufacturing partners effectively.

Each of our collaboration partners, Forest, Almirall and Astellas, is responsible for completing the drug product manufacturing process of linaclotide by finishing and packaging linaclotide API into capsules, and we will be dependent upon our partners' success in producing drug product for commercial sales. We believe these partners have sufficient capabilities to complete the manufacturing process successfully in-house. We are currently investigating the best method for providing drug product supply for the countries that are not covered by the Forest, Almirall, or Astellas collaborations.

Linaclotide is a 14 amino acid peptide, manufactured via solid-phase synthesis using naturally occurring amino acids. There is little or no precedent for producing a convenient, room-temperature stable dosage form of an orally-delivered peptide drug with a significant market opportunity. Our team developed a formulation with simple, safe excipients that was shown to be stable at room temperature for at least 24 months in various development batches. In addition, we have demonstrated stability in these development batches under accelerated conditions of 40°C with 75% relative humidity for six months, which, in accordance with industry standards, is predictive of stability of greater than 18 months at room temperature conditions. We optimized our formulation following the achievement of development batch stability, and prepared scale up batches and Phase 3 clinical trial material for stability testing. These scale up batches and Phase 3 clinical trial material batches have shown acceptable room temperature stability at the six and 12 month time points. We will continue to monitor those batches as well as additional drug product registration batches for stability in the coming months.

We believe our efforts to date will lead to a formulation that is both cost effective and able to meet the stability requirements for pharmaceutical products. Our work in this area has created an opportunity to seek additional intellectual property protections around the linaclotide program. In conjunction with Forest, we have filed patent applications worldwide to cover the room temperature stable linaclotide formulation as well as related formulations. If claims covering the room temperature stable formulation are allowed, they would expire in 2029 in the U.S. These patent rights would be subject to any potential patent term adjustments or extensions and/or supplemental protection certificates extending such term extensions in countries where such extensions may become available.

#### Microbia

We are the majority stockholder of Microbia, Inc., or Microbia, a biomanufacturing company based in Lexington, Massachusetts. Microbia was spun out of Ironwood in 2006 and focuses on building a specialty biochemicals business based on a proprietary strain-development platform. Microbia's technology platform has been designed to produce high-quality, competitively-priced specialty ingredients and industrial biomaterials from renewable resources.

### **Patents and Proprietary Rights**

We actively seek to protect the proprietary technology that we consider important to our business, including pursuing patents that cover our products and compositions, their methods of use and the processes for their manufacture, as well as any other relevant inventions and improvements that are commercially important to the development of our business. We also rely on trade secrets that may be important to the development of our business.

Our success will depend significantly on our ability to obtain and maintain patent and other proprietary protection for the technology, inventions and improvements we consider important to our business; defend our patents; preserve the confidentiality of our trade secrets; and operate without infringing the patents and proprietary rights of third parties.

#### Linaclotide and GC-C Patent Portfolio

Our linaclotide patent portfolio is currently composed of two issued U.S. patents; a granted European patent (which has been validated in 31 European countries and in Hong Kong); four issued patents in other foreign jurisdictions; nine pending U.S. non-provisional patent applications; five pending U.S. provisional patent applications; two pending Patent Cooperation Treaty, or PCT, applications; and 46 pending foreign patent applications, all of which relate to issued U.S. patents, pending U.S. non-provisional patent applications or pending PCT applications. We own all of the issued patents and own or jointly own all of the pending applications.

The issued U.S. patents, which will expire in 2025, contain claims directed to the linaclotide molecule, pharmaceutical compositions thereof, methods of using linaclotide to treat gastrointestinal disorders and processes for making the molecule. If claims in our pending patent covering the room temperature stable formulation are allowed, they would expire in August 2029. The granted European patent, which will expire in 2024, contains claims directed to the linaclotide molecule, pharmaceutical compositions thereof and uses of linaclotide to prepare medicaments for treating gastrointestinal disorders. The pending PCT, U.S., foreign and provisional applications contain claims directed to linaclotide and related molecules, pharmaceutical formulations thereof, methods of using linaclotide to treat various diseases and disorders and processes for making the molecule. These patent applications, if issued, will expire between 2024 and 2030.

In addition to the patents and patent applications related to linaclotide, we currently have one issued U.S. patent, five pending U.S. non-provisional patent applications, one pending PCT application and five pending foreign non-provisional patent applications, all of which relate to the U.S. issued patent or pending U.S. non-provisional patent applications, which are directed to other GC-C agonist molecules, pharmaceutical compositions thereof, methods of using these molecules to treat various diseases and disorders and processes of synthesizing the molecules. The issued U.S. patent will expire in 2024. The patent applications, if issued, will expire between 2024 and 2029.

#### Additional Intellectual Property

Our pipeline patent portfolio is currently composed of three issued U.S. patents; a granted European patent (which has been validated in 31 European countries and in Hong Kong); six issued patents in other foreign jurisdictions; 15 pending U.S. non-provisional patent applications; five pending U.S. provisional applications; nine pending PCT applications; and 67 pending foreign patent applications, all of which relate to issued U.S. patents or pending U.S. non-provisional patent applications. We own all of the issued patents and own or jointly own all of the pending applications. One of the issued U.S. patents expires in 2022, and the other two patents expire in 2024. The European patent and the other foreign issued patents expire in 2024. The pending patent applications, if issued, will expire between 2024 and 2030.

The term of individual patents depends upon the legal term of the patents in the countries in which they are obtained. In most countries in which we file, the patent term is 20 years from the date of filing the non-provisional application. In the U.S., a patent's term may be lengthened by patent term adjustment, which compensates a patentee for administrative delays by the U.S. Patent and Trademark Office in granting a patent, or may be shortened if a patent is terminally disclaimed over an earlier-filed patent.

The patent term of a patent that covers an FDA-approved drug may also be eligible for patent term extension, which permits patent term restoration as compensation for the patent term lost during the FDA regulatory review process. The Hatch-Waxman Act permits a patent term extension of up to five years beyond the expiration of the patent. The length of the patent term extension is related to the length of time the drug is under regulatory review. Patent extension cannot extend the remaining term of a patent beyond a total of 14 years from the date of product approval and only one patent applicable to an approved drug may be extended. Similar provisions are available in Europe and other foreign jurisdictions to extend the term of a patent that covers an approved drug. We expect to apply for patent term extensions for some of our current patents, depending upon the length of clinical trials and other factors involved in the filing of an NDA.

#### **Government Regulation**

In the United States, pharmaceutical products are subject to extensive regulation by the FDA. The Federal Food, Drug, and Cosmetic Act and other federal and state statutes and regulations, govern, among other things, the research, development, testing, manufacture, storage, recordkeeping, approval, labeling, promotion and marketing, distribution, post-approval monitoring and reporting, sampling, and import and export of pharmaceutical products. The FDA has very broad enforcement authority and failure to abide by applicable regulatory requirements can result in administrative or judicial sanctions being imposed on us, including warning letters, refusals of government contracts, clinical holds, civil penalties, injunctions, restitution, disgorgement of profits, recall or seizure of products, total or partial suspension of production or distribution, withdrawal of approval, refusal to approve pending applications, and criminal prosecution.

# FDA Approval Process

We believe that our product candidates, including linaclotide, will be regulated by the FDA as drugs. No manufacturer may market a new drug until it has submitted an NDA to the FDA, and the FDA has approved it. The steps required before the FDA may approve an NDA generally include:

- preclinical laboratory tests and animal tests conducted in compliance with FDA's good laboratory practice requirements;
- development, manufacture and testing of active pharmaceutical product and dosage forms suitable for human use in compliance with current GMP;
- the submission to the FDA of an IND for human clinical testing, which must become effective before human clinical trials may begin;
- adequate and well-controlled human clinical trials to establish the safety and efficacy of the product for its specific intended use(s);
- the submission to the FDA of an NDA; and
- FDA review and approval of the NDA.

Preclinical tests include laboratory evaluation of the product candidate, as well as animal studies to assess the potential safety and efficacy of the product candidate. The conduct of the pre-clinical tests must comply with federal regulations and requirements including good laboratory practices. We must submit the results of the preclinical tests, together with manufacturing information, analytical data and a proposed clinical trial protocol to the FDA as part of an IND, which must become effective before we may commence human clinical trials. The IND will automatically become effective 30 days after its receipt by the FDA, unless the FDA raises concerns or questions before that time about the conduct of the proposed trials. In such a case, we must work with the FDA to resolve any outstanding concerns before clinical trials can proceed. 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 trials. The study protocol and informed consent information for patients in clinical trials must also be submitted to an institutional review board for approval. An institutional review board may also require the clinical trial at the site to be halted, either temporarily or permanently, for failure to comply with the institutional review board's requirements or may impose other conditions.

Clinical trials involve the administration of the product candidate to humans under the supervision of qualified investigators, generally physicians not employed by or under the trial sponsor's control. Clinical trials are typically conducted in three sequential phases, though the phases may overlap or be combined. In Phase 1, the initial introduction of the drug into healthy human subjects, the drug is usually tested for safety (adverse effects), dosage tolerance and pharmacologic action, as well as to understand how the drug is taken up by and distributed within the body. Phase 2 usually involves studies in a limited patient population (individuals with the disease under study) to:

- evaluate preliminarily the efficacy of the drug for specific, targeted conditions;
- determine dosage tolerance and appropriate dosage as well as other important information about how to design larger Phase 3 trials; and
- identify possible adverse effects and safety risks.

Phase 3 trials generally further evaluate clinical efficacy and test for safety within an expanded patient population. The conduct of the clinical trials is subject to extensive regulation, including compliance with good clinical practice regulations and guidance.

The FDA may order the temporary or permanent discontinuation of a clinical trial at any time or impose other sanctions if it believes that the clinical trial is not being conducted in accordance with FDA requirements or presents an unacceptable risk to the clinical trial patients. We may also suspend clinical trials at any time on various grounds.

The results of the preclinical and clinical studies, together with other detailed information, including the manufacture and composition of the product candidate, are submitted to the FDA in the form of an NDA requesting approval to market the drug. FDA approval of the NDA is required before marketing of the product may begin in the U.S. If the NDA contains all pertinent information and data, the FDA will "file" the application and begin review. The FDA may "refuse to file" the NDA if it does not contain all pertinent information and data. In that case, the applicant may resubmit the NDA when it contains the missing information and data. Once the submission is accepted for filing, the FDA begins an in-depth review. The FDA has agreed to certain performance goals in the review of new drug applications. Most such applications for non-priority drug products are reviewed within 10 months. The review process, however, may be extended by FDA requests for additional information, preclinical or clinical studies, clarification regarding information already provided in the submission, or submission of a risk evaluation and mitigation strategy. The FDA may refer an application to an advisory committee for review, evaluation and recommendation as to whether the application should be approved. The FDA is not bound by the recommendations of an advisory committee, but it considers such recommendations carefully when making decisions. Before approving an NDA, the FDA will typically inspect the facilities at which the product candidate is manufactured and will not approve the product candidate unless GMP compliance is satisfactory. FDA also typically inspects facilities responsible for performing animal testing, as well as clinical investigators who participate in clinical trials. The FDA may refuse to approve an NDA if applicable regulatory criteria are not satisfied, or may require additional testing or information. The FDA may also limit the indications for use and/or require post-marketing testing and surveillance to monitor the safety or efficacy of a product. Once granted, product approvals may be withdrawn if compliance with regulatory standards is not maintained or problems are identified following initial marketing.

The testing and approval process requires substantial time, effort and financial resources, and our product candidates may not be approved on a timely basis, if at all. The time and expense required to perform the clinical testing necessary to obtain FDA approval for regulated products can frequently exceed the time and expense of the research and development initially required to create the product. The results of preclinical studies and initial clinical trials of our product candidates, including linaclotide, are not necessarily predictive of the results from large-scale clinical trials, and clinical trials may be subject to additional costs, delays or modifications due to a number of factors, including difficulty in obtaining enough patients, investigators or product candidate supply. Failure by us or our collaborators, licensors or licensees, including Forest, Almirall and Astellas, to obtain, or any delay in obtaining, regulatory approvals or in complying with requirements could adversely affect the commercialization of product candidates and our ability to receive product or royalty revenues.

#### Hatch-Waxman Act

The Hatch-Waxman Act established abbreviated approval procedures for generic drugs. Approval to market and distribute these drugs is obtained by submitting an Abbreviated New Drug Application, or ANDA, with the FDA. The application for generic drugs is "abbreviated" because it need not include preclinical or clinical data to demonstrate safety and effectiveness and may instead rely on the FDA's previous finding that the brand drug, or reference drug, is safe and effective. In order to obtain approval of an ANDA, an applicant must, among other things, establish that its product is bioequivalent to an existing approved drug and that it has the same active ingredient(s), strength, dosage form, and the same route of administration. A generic drug is considered bioequivalent to its reference drug if testing demonstrates that the rate and extent of absorption of the generic drug is not significantly different from the rate and extent of absorption of the reference drug when administered under similar experimental conditions.

The Hatch-Waxman Act also provides incentives by awarding, in certain circumstances, certain legal protections from generic competition. This protection comes in the form of a non-patent exclusivity period, during which the FDA may not accept or approve a generic drug, whether the application for such drug is submitted through an ANDA or a through another form of application, known as a 505(b)(2) application.

The Hatch-Waxman Act grants five years of exclusivity when a company develops and gains NDA approval of a new chemical entity that has not been previously approved by the FDA. This exclusivity provides that the FDA may not accept an ANDA or 505(b)(2) application for five years after the date of approval of previously approved drug, or four years in the case of an ANDA or 505(b)(2) application that challenges a patent claiming the reference drug (see discussion below regarding patent challenges). The Hatch-Waxman Act also provides three years of exclusivity for approved applications for drugs that are not new chemical entities, if the application contains the results of new clinical investigations (other than bioavailability studies) that were essential to approval of the application. Examples of such applications include applications for new indications, dosage forms (including new drug delivery systems), strengths, or conditions of use for an already approved product. This three-year exclusivity period protects against FDA approval of ANDAs and 505(b)(2) applications for generic drugs that include the innovation that required clinical data; it does not prohibit the FDA from accepting or approving ANDAs or 505(b)(2) NDAs for generic drugs that do not include the innovation.

Paragraph IV Certifications. Under the Hatch-Waxman Act, NDA applicants and NDA holders must provide information about certain patents claiming their drugs for listing in the FDA publication, "Approved Drug Products with Therapeutic Equivalence Evaluations," also known as the "Orange Book." When an ANDA or 505(b)(2) application is submitted, it must contain one of several possible certifications regarding each of the patents listed in the Orange Book for the reference drug. A

certification that a listed patent is invalid or will not be infringed by the sale of the proposed product is called a "Paragraph IV" certification.

Within 30 days of the acceptance by the FDA of an ANDA or 505(b)(2) application containing a Paragraph IV certification, the applicant must notify the NDA holder and patent owner that the application has been submitted, and provide the factual and legal basis for the applicant's opinion that the patent is invalid or not infringed. The NDA holder or patent holder may then initiate a patent infringement suit in response to the Paragraph IV notice. If this is done within 45 days of receiving notice of the Paragraph IV certification, a one-time 30-month stay of the FDA's ability to approve the ANDA or 505(b)(2) application is triggered. The FDA may approve the proposed product before the expiration of the 30-month stay only if a court finds the patent invalid or not infringed, or if the court shortens the period because the parties have failed to cooperate in expediting the litigation.

Patent Term Restoration. Under the Hatch-Waxman Act, a portion of the patent term lost during product development and FDA review of an NDA or 505(b)(2) application is restored if approval of the application is the first permitted commercial marketing of a drug containing the active ingredient. The patent term restoration period is generally one-half the time between the effective date of the IND and the date of submission of the NDA, plus the time between the date of submission of the NDA and the date of FDA approval of the product. The maximum period of restoration is five years, and the patent cannot be extended to more than 14 years from the date of FDA approval of the product. Only one patent claiming each approved product is eligible for restoration and the patent holder must apply for restoration within 60 days of approval. The U.S. Patent and Trademark Office, in consultation with the FDA, reviews and approves the application for patent term restoration.

#### Other Regulatory Requirements

After approval, drug products are subject to extensive continuing regulation by the FDA, which include company obligations to manufacture products in accordance with GMP, maintain and provide to the FDA updated safety and efficacy information, report adverse experiences with the product, keep certain records and submit periodic reports, obtain FDA approval of certain manufacturing or labeling changes, and comply with FDA promotion and advertising requirements and restrictions. Failure to meet these obligations can result in various adverse consequences, both voluntary and FDA-imposed, including product recalls, withdrawal of approval, restrictions on marketing, and the imposition of civil fines and criminal penalties against the NDA holder. In addition, later discovery of previously unknown safety or efficacy issues may result in restrictions on the product, manufacturer or NDA holder.

We and any manufacturers of our products are required to comply with applicable FDA manufacturing requirements contained in the FDA's GMP regulations. GMP regulations require among other things, quality control and quality assurance as well as the corresponding maintenance of records and documentation. The manufacturing facilities for our products must meet GMP requirements to the satisfaction of the FDA pursuant to a pre-approval inspection before we can use them to manufacture our products. We and any third-party manufacturers are also subject to periodic inspections of facilities by the FDA and other authorities, including procedures and operations used in the testing and manufacture of our products to assess our compliance with applicable regulations.

With respect to post-market product advertising and promotion, the FDA imposes a number of complex regulations on entities that advertise and promote pharmaceuticals, which include, among others, standards for direct-to-consumer advertising, promoting drugs for uses or in patient populations that are not described in the drug's approved labeling (known as "off-label use"), 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.

Changes to some of the conditions established in an approved application, including changes in indications, labeling, or manufacturing processes or facilities, require submission and FDA approval of a new NDA or NDA supplement before the change can be implemented. An NDA supplement for a new indication typically requires clinical data similar to that in the original application, and the FDA uses the same procedures and actions in reviewing NDA supplements as it does in reviewing NDAs.

Adverse event reporting and submission of periodic reports is required following FDA approval of an NDA. The FDA also may require post-marketing testing, known as Phase 4 testing, risk minimization action plans, and surveillance to monitor the effects of an approved product or place conditions on an approval that could restrict the distribution or use of the product.

Outside the United States, our and our collaborators' abilities to market a product are contingent upon receiving marketing authorization from the appropriate regulatory authorities. The requirements governing marketing authorization, pricing and reimbursement vary widely from jurisdiction to jurisdiction. At present, foreign marketing authorizations are applied for at a national level, although within the European Union registration procedures are available to companies wishing to market a product in more than one European Union member state.

## **Employees**

As of December 31, 2009, we had 165 employees. Approximately 50 were scientists engaged in discovery research, 73 were in our drug development organization, and 42 were in sales and general and administrative functions. None of our employees are represented by a labor union, and we consider our employee relations to be good.

#### Item 1A. Risk Factors

In addition to the other information in this Annual Report on Form 10-K, any of the factors described below could significantly and negatively affect our business, financial condition, results of operations or prospects. The trading price of our Class A common stock may decline due to these risks.

### Risks Related to Our Business and Industry

We are largely dependent on the success of linaclotide, which may never receive regulatory approval or be successfully commercialized.

We currently have one product candidate, linaclotide, in Phase 3 clinical development. Our other drug candidates are in earlier stages of development. Our business depends entirely on the successful development and commercialization of our product candidates. We currently generate no revenue from sales, and we may never be able to develop marketable drugs. The research, testing, manufacturing, labeling, approval, sale, marketing and distribution of pharmaceutical products is subject to extensive regulation by the FDA and foreign regulatory authorities, and regulations differ from jurisdiction to jurisdiction. We are not permitted to market any of our product candidates in the U.S. until we receive approval of an NDA from the FDA, or in any foreign jurisdictions until we receive the requisite approvals from such jurisdictions. We have neither submitted an NDA nor received marketing approval for linaclotide in any jurisdiction. Obtaining approval of an NDA is a lengthy, expensive and uncertain process. The FDA also has substantial discretion in the drug approval process, including the ability to delay, limit or deny approval of a product candidate for many reasons. For example:

- the FDA may not deem linaclotide or another product candidate safe and effective;
- the FDA may not find the data from preclinical studies and clinical trials sufficient to support approval;
- the FDA may not approve of manufacturing processes and facilities; or
- the FDA may change its approval policies or adopt new regulations.

Linaclotide is a first-in-class compound that is currently in Phase 3 clinical development for the treatment of IBS-C and CC and will require the successful completion of at least two Phase 3 clinical trials for each indication before submission of an NDA to the FDA for potential approval in such indication. In November 2009, we announced that we achieved favorable results in our CC trials. Even though linaclotide met the endpoints of the CC trial, it may not be approved for the CC indication or for any other indication for which we are seeking approval from the FDA. The FDA may disagree with our trial design or our interpretation of data from clinical trials, or may change the requirements for approval even after it has reviewed and commented on the design for our clinical trials. The FDA might also approve linaclotide for fewer or more limited indications than we request, or may grant approval contingent on the performance of costly post-approval clinical trials. In addition, the FDA may not approve the labeling claims that we believe are necessary or desirable for the successful commercialization of linaclotide. Any failure to obtain regulatory approval of linaclotide would significantly limit our ability to generate revenues, and any failure to obtain such approval for all of the indications and labeling claims we deem desirable could reduce our potential revenue.

# Our clinical trials may fail to demonstrate acceptable levels of safety and efficacy of linaclotide, which could prevent or significantly delay regulatory approval.

Our product candidates are prone to the risks of failure inherent in drug development—most pharmaceutical product candidates fail. Before obtaining regulatory approvals for the commercial sale of linaclotide or any other product candidate for a specific indication, we must demonstrate with substantial evidence gathered in well-controlled clinical trials and to the satisfaction of the FDA, with respect to approval in the U.S., and to the satisfaction of similar regulatory authorities in other jurisdictions, with respect to approval in those jurisdictions, that the product candidate is safe and effective for use for the target indication.

The results from the preclinical and clinical trials that we have completed for linaclotide may not be replicated in future trials, or we may be unable to demonstrate sufficient safety and efficacy to obtain the requisite regulatory approvals for linaclotide. A number of companies in the biotechnology and pharmaceutical industries have suffered significant setbacks in advanced clinical trials, even after promising results in earlier trials. If linaclotide is not shown to be safe and effective, our clinical development programs could be delayed or terminated. Our failure to adequately demonstrate the efficacy and safety of linaclotide or any other product candidates that we may develop, in-license or acquire would prevent receipt of regulatory approval and, ultimately, the commercialization of that product candidate.

The positive top-line results from our two Phase 3 clinical trials assessing the safety and efficacy of linaclotide in patients with CC may not be indicative of our two Phase 3 clinical trials assessing the safety and efficacy of linaclotide in patients with IBS-C.

In November 2009, we announced that the primary endpoint was achieved in each of our two Phase 3 clinical trials assessing the safety and efficacy of linaclotide in patients with CC. Additional data from each of these Phase 3 clinical trials may become available and may have a bearing on the safety and efficacy of linaclotide. In addition, the primary efficacy endpoint in each of these two clinical trials is only one of the three primary efficacy endpoints in each of our two Phase 3 clinical trials assessing the safety and efficacy of linaclotide in patients with IBS-C. Positive results in the CC trial or from earlier clinical trials are not necessarily indicative of future success in the IBS-C trials, even with respect to similar endpoints. Therefore, unless we meet all three primary efficacy endpoints in our two IBS-C clinical trials, we may be unable to demonstrate sufficient safety and efficacy of linaclotide in patients with IBS-C. Finally, our partners Almirall and Astellas intend to seek approval from regulatory authorities in each of their respective territories solely for the IBS-C indication. Accordingly, if we are unable to establish safety and efficacy of linaclotide in our U.S. IBS-C trials, our partners may be

unable to utilize our data in the U.S. in their regulatory filings, and may be hindered from obtaining approval for linaclotide in their respective territories.

# Linaclotide may cause undesirable side effects or have other properties that could delay or prevent its regulatory approval or limit its commercial potential.

Undesirable side effects caused by linaclotide could cause us or regulatory authorities to interrupt, delay or halt clinical trials and could result in the denial of regulatory approval by the FDA or other regulatory authorities and potential products liability claims. We are currently completing our evaluation of the data from our CC studies and conducting two Phase 3 IBS-C trials as well as a long-term safety study in patients dosed with linaclotide over a 78-week period. Serious adverse events deemed to be caused by linaclotide could have a material adverse effect upon the linaclotide program and our business as a whole. The most common adverse event to date in the clinical studies evaluating the safety and efficacy of linaclotide has been diarrhea. For the most part, the diarrhea has been considered mild or moderate by the patients, but in a small percentage of patients, it has been severe enough for patients to discontinue participation in a study. There have been no serious adverse events in patients treated with linaclotide that were deemed by a study investigator to be definitively related or probably related to linaclotide treatment. There have been serious adverse events in patients treated with linaclotide that were deemed by a study investigator to be possibly related to linaclotide treatment, involving single cases of aplastic anemia, atrial fibrillation, bronchitis, cholelithiasis, gastroenteritis, and illeus. These serious adverse events may or may not have been related to linaclotide and our understanding of the relationship between linaclotide and these events may change as we gather more information. Finally, there have been no deaths in our trials that were considered to be related to linaclotide treatment.

If linaclotide receives marketing approval, and we or others later identify undesirable side effects caused by the product, a number of potentially significant negative consequences could result, including:

- regulatory authorities may withdraw approvals of linaclotide;
- regulatory authorities may require additional warnings on the label;
- we may be required to create a medication guide outlining the risks of such side effects for distribution to patients;
- we could be sued and held liable for harm caused to patients; and
- our reputation may suffer.

Any of these events could prevent us from achieving or maintaining market acceptance of linaclotide and could substantially increase commercialization costs.

# Delays in the completion of clinical testing could result in increased costs and delay or limit our ability to generate revenues.

Delays in the completion of clinical testing could significantly affect our product development costs. We do not know whether planned clinical trials will be completed on schedule, if at all. The commencement and completion of clinical trials can be delayed for a number of reasons, including delays related to:

- obtaining regulatory approval to commence a clinical trial;
- reaching agreement on acceptable terms with prospective clinical research organizations, or CROs, and trial sites, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and trial sites;

- manufacturing sufficient quantities of a product candidate for use in clinical trials;
- obtaining institutional review board approval to conduct a clinical trial at a prospective site;
- recruiting and enrolling patients to participate in clinical trials for a variety of reasons, including competition from other clinical trial programs for the treatment of similar conditions; and
- signing-up patients who have initiated a clinical trial but may be prone to withdraw due to side effects from the therapy, lack of efficacy or personal issues, or who are lost to further follow-up.

Clinical trials may also be delayed as a result of ambiguous or negative interim results. In addition, a clinical trial may be suspended or terminated by us, an institutional review board overseeing the clinical trial at a clinical trial site (with respect to that site), the FDA, or other regulatory authorities due to a number of factors, including:

- failure to conduct the clinical trial in accordance with regulatory requirements or the study protocols;
- inspection of the clinical trial operations or trial sites by the FDA or other regulatory authorities resulting in the imposition of a clinical hold;
- · unforeseen safety issues; and
- · lack of adequate funding to continue the clinical trial.

Additionally, changes in regulatory requirements and guidance may occur, and we may need to amend clinical trial protocols to reflect these changes. Amendments may require us to resubmit our clinical trial protocols to institutional review boards for reexamination, which may impact the costs, timing or successful completion of a clinical trial. If we experience delays in completion of, or if we terminate any of our clinical trials, the commercial prospects for our product candidates may be harmed, and our ability to generate product revenues will be delayed. In addition, many of the factors that cause, or lead to, a delay in the commencement or completion of clinical trials may also ultimately lead to the denial of regulatory approval of our product candidates.

Because we work with Forest Laboratories, Inc. to develop, promote and manufacture linaclotide in North America, we are dependent upon a third party in our efforts to obtain regulatory approval for, and to commercialize, linaclotide within our expected timeframes.

We co-develop and plan to co-promote linaclotide in the U.S. with Forest. Forest plays a significant role in the conduct of the clinical trials for linaclotide and the subsequent collection and analysis of data. In addition, Forest is responsible for completing the manufacturing process of linaclotide upon production of the API which consists of finishing and packaging linaclotide into capsules. Employees of Forest are not our employees, and we have limited ability to control the amount or timing of resources that they devote to linaclotide. If Forest fails to devote sufficient time and resources to linaclotide, or if its performance is substandard, it will delay the potential approval of our regulatory applications as well as the commercialization and manufacturing of linaclotide. A material breach by Forest of our collaboration agreement could also delay regulatory approval and commercialization of linaclotide. In addition, the execution of clinical trials, and the subsequent compilation and analysis of the data produced, requires coordination among various parties. These functions may not be carried out effectively and efficiently if these parties fail to communicate and coordinate with one another. Moreover, although we have non-compete restrictions in place with Forest, Forest may have relationships with other commercial entities, some of which may compete with us. If Forest assists our competitors, it could harm our competitive position.

# We may face competition in the IBS-C and CC marketplace for linaclotide, and new products may emerge that provide different or better alternatives for treatment of gastrointestinal conditions.

If approved and commercialized, linaclotide will compete with one existing prescription therapy for the treatment of IBS-C and CC, Amitiza. In addition, over the counter products are also used to treat certain symptoms of IBS-C and CC. The availability of prescription competitors and over the counter products for gastrointestinal conditions could limit the demand, and the price we are able to charge, for linaclotide unless we are able to differentiate linaclotide on the basis of its clinical benefits in our clinical trials. New developments, including the development of other drug technologies and methods of preventing the incidence of disease, occur in the pharmaceutical and medical technology industries at a rapid pace. These developments may render linaclotide obsolete or noncompetitive.

We believe certain companies are developing other products which could compete with linaclotide should they be approved by the FDA. Currently, there is only one compound in late stage development, and it is being developed by Theravance, Inc. This compound has completed Phase 2 trials for CC. To our knowledge, other potential competitors are in earlier stages of development. If our potential competitors are successful in completing drug development for their drug candidates and obtain approval from the FDA, they could limit the demand for linaclotide.

Many of our competitors have substantially greater financial, technical and human resources than us. Mergers and acquisitions in the pharmaceutical industry may result in even more resources being concentrated in our competitors. Competition may increase further as a result of advances made in the commercial applicability of technologies and greater availability of capital for investment in these fields.

# We have limited sales and marketing experience and resources, and we may not be able to effectively market and sell linaclotide.

With linaclotide, we are developing a product candidate for large markets traditionally served by general practitioners and internists, as well as gastrointestinal specialists. Traditional pharmaceutical companies employ groups of sales representatives to call on these large generalist physician populations. In order to adequately address these physician groups, we must optimize our co-development and co-promotion relationship in the U.S., Canada and Mexico with Forest, our license and commercialization relationship in Europe with Almirall, and our license and commercialization relationship in certain Asian countries with Astellas. Likewise, we must either establish sales and marketing collaborations or co-promotion arrangements or expend significant resources to develop our own sales and marketing presence outside of North America, Europe, and those Asian countries. We currently possess limited resources and may not be successful in establishing additional collaborations or co-promotion arrangements on acceptable terms, if at all. We also face competition in our search for collaborators, co-promoters and sales force personnel. By entering into strategic collaborations or similar arrangements, we rely on third parties for financial resources and for development, commercialization, sales and marketing and regulatory expertise. Our collaborators may fail to develop or effectively commercialize linaclotide because they cannot obtain the necessary regulatory approvals, lack adequate financial or other resources or decide to focus on other initiatives.

### Even if linaclotide receives regulatory approval, it may still face future development and regulatory difficulties.

Even if U.S. regulatory approval is obtained, the FDA may still impose significant restrictions on a product's indicated uses or marketing or impose ongoing requirements for potentially costly post-approval studies. Linaclotide and our other product candidates would also be subject to ongoing FDA requirements governing the labeling, packaging, storage, advertising, promotion, recordkeeping and submission of safety and other post-market information. In addition, manufacturers of drug products and their facilities are subject to continual review and periodic inspections by the FDA and other regulatory authorities for compliance with current GMP regulations. If we or a regulatory agency

discovers previously unknown problems with a product, such as adverse events of unanticipated severity or frequency, or problems with the facility where the product is manufactured, a regulatory agency may impose restrictions on that product or the manufacturer, including requiring withdrawal of the product from the market or suspension of manufacturing. If we, our product candidates or the manufacturing facilities for our product candidates fail to comply with applicable regulatory requirements, a regulatory agency may:

- issue warning letters or untitled letters;
- impose civil or criminal penalties;
- suspend regulatory approval;
- suspend any ongoing clinical trials;
- refuse to approve pending applications or supplements to applications filed by us;
- impose restrictions on operations, including costly new manufacturing requirements; or
- seize or detain products or require us to initiate a product recall.

# Even if linaclotide receives regulatory approval in the U.S., we or our collaborators may never receive approval to commercialize linaclotide outside of the U.S.

In May 2009, we entered into an out-license agreement with Almirall for European rights to develop and commercialize linaclotide. In November 2009, we entered into an out-license agreement with Astellas for rights to develop and commercialize linaclotide in certain Asian countries. In the future, we may seek to commercialize linaclotide in foreign countries outside of Europe and those Asian countries with other parties or by ourselves. In order to market any products outside of the U.S., we must establish and comply with numerous and varying regulatory requirements of other jurisdictions regarding safety and efficacy. Approval procedures vary among jurisdictions and can involve product testing and administrative review periods different from, and greater than, those in the U.S. The time required to obtain approval in other jurisdictions might differ from that required to obtain FDA approval. The regulatory approval process in other jurisdictions may include all of the risks detailed above regarding FDA approval in the U.S. as well as other risks. Regulatory approval in one jurisdiction does not ensure regulatory approval in another, but a failure or delay in obtaining regulatory approval in one jurisdiction may have a negative effect on the regulatory processes in others. Failure to obtain regulatory approvals in other jurisdictions or any delay or setback in obtaining such approvals could have the same adverse effects detailed above regarding FDA approval in the U.S. As described above, such effects include the risks that linaclotide may not be approved for all indications requested, which could limit the uses of our linaclotide and have an adverse effect on its commercial potential or require costly post-marketing studies.

If we or our collaborative partners and other third parties upon whom we rely to produce linaclotide are unable to satisfy FDA quality standards and related regulatory requirements, experience manufacturing difficulties, or are unable to manufacture sufficient quantities of our product candidates, our development and commercialization efforts may be materially harmed.

We do not currently possess internal manufacturing capacity. We currently utilize the services of contract manufacturers to manufacture our clinical supplies. With respect to the manufacturing of linaclotide, we are currently pursuing long-term commercial supply agreements with multiple manufacturers. These manufacturers will be responsible for the linaclotide API. These third party manufacturers acquire the raw materials for the API from a limited number of sources. Any curtailment in the availability of these raw materials could result in production or other delays with consequent adverse effects on us. In addition, because regulatory authorities must generally approve

raw material sources for pharmaceutical products, changes in raw material suppliers may result in production delays or higher raw material costs.

We may be required to agree to minimum volume requirements, exclusivity arrangements or other restrictions with the contract manufacturers. We may not be able to enter into long-term agreements on commercially reasonable terms, or at all. If we change or add manufacturers, the FDA and comparable foreign regulators must approve these manufacturers' facilities and processes prior to use, which would require new testing and compliance inspections, and the new manufacturers would have to be educated in or independently develop the processes necessary for the production of our product candidates. Peptide manufacturing is a highly specialized manufacturing business. While we believe we will have long term arrangements with a sufficient number of API manufacturers, if we lose a manufacturer, it would take us a substantial amount of time to identify and develop a relationship with an alternative manufacturer.

Upon production of our API, each of our collaboration partners, Forest, Almirall and Astellas, is responsible for completing the manufacturing process of linaclotide which consists of finishing and packaging linaclotide into capsules, and we will be dependent upon those parties' success in producing drug product for commercial sale. No party has experience producing the API or finished drug product for linaclotide at commercial scale, and such efforts may fail. Traditionally, peptide manufacturing is costly, time consuming, resulting in low yields and poor stability. We cannot give any assurances that we will not encounter these issues when scaling up manufacturing for linaclotide.

The manufacture of pharmaceutical products requires significant expertise and capital investment, including the development of advanced manufacturing techniques and process controls. Manufacturers of pharmaceutical products often encounter difficulties in production, particularly in scaling up production. These problems include difficulties with production costs and yields, quality control, including stability of the product and quality assurance testing, shortages of qualified personnel, as well as compliance with federal, state and foreign regulations. We are currently evaluating the stability of different batch sizes of linaclotide at various points in time. If we are unable to demonstrate stability in accordance with commercial requirements, or if our manufacturers were to encounter difficulties or otherwise fail to comply with their obligations to us, our ability to obtain FDA approval and market linaclotide would be jeopardized. In addition, any delay or interruption in the supply of clinical trial supplies could delay the completion of our clinical trials, increase the costs associated with conducting our clinical trials and, depending upon the period of delay, require us to commence new trials at significant additional expense or to terminate a trial.

Each of the linaclotide manufacturers would need to comply with GMP requirements enforced by the FDA through its facilities inspection program. These requirements include, among other things, quality control, quality assurance and the maintenance of records and documentation. Manufacturers of linaclotide may be unable to comply with these GMP requirements and with other FDA and foreign regulatory requirements. We have little control over our manufacturers' or collaboration partners' compliance with these regulations and standards. A failure to comply with these requirements may result in fines and civil penalties, suspension of production, suspension or delay in product approval, product seizure or recall, or withdrawal of product approval. If the safety of linaclotide is compromised due to a manufacturers' or collaboration partners' failure to adhere to applicable laws or for other reasons, we may not be able to obtain regulatory approval for or successfully commercialize linaclotide, and we may be held liable for any injuries sustained as a result. Any of these factors could cause a delay of clinical trials, regulatory submissions, approvals or commercialization of linaclotide or our other product candidates, entail higher costs or result in our being unable to effectively commercialize linaclotide or our other product candidates. Furthermore, if our manufacturers or collaboration partners fail to deliver the required commercial quantities on a timely basis and at commercially reasonable prices, we may be unable to meet demand for any approved products and would lose potential revenues.

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

Government agencies promulgate regulations and guidelines directly applicable to us and to our products. In addition, professional societies, 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 health care 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 products or the use of competitive or alternative products that are followed by patients and health care providers could result in decreased use of our products.

# We are subject to uncertainty relating to reimbursement policies which, if not favorable for linaclotide, could hinder or prevent linaclotide's commercial success.

Our ability to commercialize linaclotide successfully will depend in part on the coverage and reimbursement levels set by governmental authorities, private health insurers and other third-party payors. As a threshold for coverage and reimbursement, third-party payors generally require that drug products have been approved for marketing by the FDA. Third-party payors also are increasingly challenging the effectiveness of and prices charged for medical products and services. We may not obtain adequate third-party coverage or reimbursement for linaclotide or we may be required to sell linaclotide at a discount.

We expect that private insurers will consider the efficacy, cost effectiveness and safety of linaclotide in determining whether to approve reimbursement for linaclotide and at what level. Obtaining these approvals can be a time consuming and expensive process. Our business would be materially adversely affected if we do not receive approval for reimbursement of linaclotide from private insurers on a timely or satisfactory basis. Our business could also be adversely affected if private insurers, including managed care organizations, the Medicare program or other reimbursing bodies or payors limit the indications for which linaclotide will be reimbursed to a smaller set than we believe it is effective in treating.

In some foreign countries, particularly Canada and the countries of Europe, the pricing of prescription pharmaceuticals is subject to strict governmental control. In these countries, pricing negotiations with governmental authorities can take six to 12 months or longer after the receipt of regulatory approval and product launch. To obtain favorable reimbursement for the indications sought or pricing approval in some countries, we may be required to conduct a clinical trial that compares the cost-effectiveness of our products, including linaclotide, to other available therapies. If reimbursement for our products is unavailable in any country in which reimbursement is sought, limited in scope or amount, or if pricing is set at unsatisfactory levels, our business could be materially harmed.

We expect to experience pricing pressures in connection with the sale of linaclotide and our future products due to the potential healthcare reforms discussed below, as well as the trend toward programs aimed at reducing health care costs, the increasing influence of health maintenance organizations and additional legislative proposals.

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

The use of our product candidates in clinical trials and the sale of any products for which we obtain marketing approval expose us to the risk of product liability claims. If we cannot successfully defend ourselves against product liability claims, we could incur substantial liabilities. In addition, regardless of merit or eventual outcome, product liability claims may result in:

- decreased demand for any approved product;
- impairment of our business reputation;
- withdrawal of clinical trial participants;
- initiation of investigations by regulators;
- costs of related litigation;
- distraction of management's attention from our primary business;
- substantial monetary awards to patients or other claimants;
- · loss of revenues; and
- the inability to commercialize our product candidates.

We have obtained product liability insurance coverage for our clinical trials. Our insurance coverage is limited to \$5 million per occurrence, and \$10 million in the aggregate, and covers bodily injury and property damage arising from our clinical trials, subject to industry-standard terms, conditions and exclusions. Our 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. If and when we obtain marketing approval for any of our product candidates, we intend to expand our insurance coverage to include the sale of commercial products; however, we may be unable to obtain this product liability insurance on commercially reasonable terms. On occasion, large judgments have been awarded in class action lawsuits based on drugs that had unanticipated side 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 decrease our cash and adversely affect our business.

In pursuing our growth strategy, we will incur a variety of costs and may devote resources to potential opportunities that are never completed or for which we never receive the benefit. Our failure to successfully discover, acquire, develop and market additional product candidates or approved products would impair our ability to grow.

As part of our growth strategy, we intend to develop and market additional products and product candidates. We are pursuing various therapeutic opportunities through our pipeline. We may spend several years completing our development of any particular current or future internal product candidate, and failure can occur at any stage. The product candidates to which we allocate our resources may not end up being successful. In addition, because our internal research capabilities are limited, we may be dependent upon pharmaceutical and biotechnology companies, academic scientists and other researchers to sell or license products or technology to us. The success of this strategy depends partly upon our ability to identify, select, discover and acquire promising pharmaceutical product candidates and products.

The process of proposing, negotiating and implementing a license or acquisition of a product candidate or approved product is lengthy and complex. Other companies, including some with

substantially greater financial, marketing and sales resources, may compete with us for the license or acquisition of product candidates and approved products. We have limited resources to identify and execute the acquisition or in-licensing of third-party products, businesses and technologies and integrate them into our current infrastructure. Moreover, we may devote resources to potential acquisitions or in-licensing opportunities that are never completed, or we may fail to realize the anticipated benefits of such efforts. We may not be able to acquire the rights to additional product candidates on terms that we find acceptable, or at all.

In addition, future acquisitions may entail numerous operational and financial risks, including:

- exposure to unknown liabilities;
- disruption of our business and diversion of our management's time and attention to develop acquired products or technologies;
- incurrence of substantial debt, dilutive issuances of securities or depletion of cash to pay for acquisitions;
- higher than expected acquisition and integration costs;
- difficulty in combining the operations and personnel of any acquired businesses with our operations and personnel;
- increased amortization expenses;
- impairment of relationships with key suppliers or customers of any acquired businesses due to changes in management and ownership; and
- inability to motivate key employees of any acquired businesses.

Further, any product candidate that we acquire may require additional development efforts prior to commercial sale, including extensive clinical testing and approval by the FDA and applicable foreign regulatory authorities. All product candidates are prone to risks of failure typical of pharmaceutical product development, including the possibility that a product candidate will not be shown to be sufficiently safe and effective for approval by regulatory authorities.

#### Healthcare reform measures could hinder or prevent our product candidates' commercial success.

The U.S. government and other governments have shown significant interest in pursuing healthcare reform, as evidenced by the recent passing of the Patient Protection and Affordable Healthcare Act. Such government-adopted reform measures may adversely impact the pricing of healthcare products and services in the U.S. or internationally and the amount of reimbursement available from governmental agencies or other third party payors. The continuing efforts of the U.S. and foreign governments, insurance companies, managed care organizations and other payors of health care services to contain or reduce health care costs may adversely affect our ability to set prices for our products which we believe are fair, and our ability to generate revenues and achieve and maintain profitability.

New laws, regulations and judicial decisions, or new interpretations of existing laws, regulations and decisions, that relate to healthcare availability, methods of delivery or payment for products and services, or sales, marketing or pricing, may limit our potential revenue, and we may need to revise our research and development programs. As a result of the recently-passed healthcare legislation in the U.S., as well as fiscal challenges faced by government health administration authorities, the pricing and reimbursement environment presumably will change in the future and become more challenging. In addition, in some foreign jurisdictions, there have been a number of legislative and regulatory proposals to change the health care system in ways that could affect our ability to sell our products profitably. The recent U.S. legislation and these proposed reforms could result in reduced reimbursement rates for

linaclotide and our other potential products, which would adversely affect our business strategy, operations and financial results.

In addition, the Medicare Prescription Drug Improvement and Modernization Act of 2003 reforms the way Medicare will cover and reimburse for pharmaceutical products. This legislation could decrease the coverage and price that we may receive for our products. Other third-party payors are increasingly challenging the prices charged for medical products and services. It will be time consuming and expensive for us to go through the process of seeking reimbursement from Medicare and private payors. Our products may not be considered cost-effective, and coverage and reimbursement may not be available or sufficient to allow us to sell our products on a profitable basis. Further federal and state proposals and health care reforms are likely which could limit the prices that can be charged for the product candidates that we develop and may further limit our commercial opportunity. Our results of operations could be materially adversely affected by the recent healthcare reforms, by the Medicare prescription drug coverage legislation, by the possible effect of such current or future legislation on amounts that private insurers will pay and by other health care reforms that may be enacted or adopted in the future.

In September 2007, the Food and Drug Administration Amendments Act of 2007 was enacted, giving the FDA enhanced post-marketing authority, including the authority to require post-marketing studies and clinical trials, labeling changes based on new safety information, and compliance with risk evaluations and mitigation strategies approved by the FDA. The FDA's exercise of this authority could result in delays or increased costs during product development, clinical trials and regulatory review, increased costs to assure compliance with post-approval regulatory requirements, and potential restrictions on the sale and/or distribution of approved products.

### If our strategic alliances are unsuccessful, our operating results will be negatively impacted.

Our three primary strategic alliances are with Forest, Almirall and Astellas. The success of these arrangements is largely dependent on the resources, efforts and skills of these partners. Disputes and difficulties in such relationships are common, often due to conflicting priorities or conflicts of interest. Merger and acquisition activity may exacerbate these conflicts. The benefits of these alliances are reduced or eliminated when strategic partners:

- terminate the agreements covering the strategic alliance;
- fail to devote financial or other resources to the alliances and thereby hinder or delay development, manufacturing or commercialization activities; or
- fail to maintain the financial resources necessary to continue financing their portion of the development, manufacturing or commercialization costs, or become insolvent or declare bankruptcy.

#### We will need to increase the size of our organization, and we may experience difficulties in managing growth.

We will need to expand our managerial, operational, financial and other resources in order to manage our operations and clinical trials, continue our development activities and commercialize our product candidates. Our personnel, systems and facilities currently in place may not be adequate to support this future growth. Our need to effectively execute our growth strategy requires that we:

- manage our clinical trials effectively, including our Phase 3 clinical trials for linaclotide;
- manage our internal development efforts effectively while complying with our contractual obligations to licensors, licensees, contractors, collaborators and other third parties;
- improve our operational, financial and management controls, reporting systems and procedures;
   and

• attract and motivate sufficient numbers of talented employees.

We may not be able to manage our business effectively if we lose any of our current management team or if we are unable to attract and motivate key personnel.

We may not be able to attract or motivate qualified management and scientific and clinical personnel in the future due to the intense competition for qualified personnel among biotechnology, pharmaceutical and other businesses, particularly in the greater-Boston area. Our industry has experienced a high rate of turnover of management personnel in recent years. If we are not able to attract and motivate necessary personnel to accomplish our business objectives, we may experience constraints that will significantly impede the achievement of our objectives.

We are highly dependent on the development, regulatory, commercial and financial expertise of our management, particularly Peter M. Hecht, Ph.D., our Chief Executive Officer; Mark G. Currie, Ph.D., our Senior Vice President of Research and Development and our Chief Scientific Officer; Michael J. Higgins, our Senior Vice President, Chief Operating Officer and Chief Financial Officer; and Thomas McCourt, our Senior Vice President, Marketing and Sales and Chief Commercial Officer. Although no member of our management team has informed us to date that he or she intends to resign or retire, if we lose any members of our management team in the future, we may not be able to find suitable replacements, and our business may be harmed as a result. In addition to the competition for personnel, the Boston area in particular is characterized by a high cost of living. As such, we could have difficulty attracting experienced personnel to our company and may be required to expend significant financial resources in our employee recruitment efforts.

We also have scientific and clinical advisors who assist us in formulating our product development and clinical strategies. These advisors are not our employees and may have commitments to, or consulting or advisory contracts with, other entities that may limit their availability to us, or may have arrangements with other companies to assist in the development of products that may compete with ours.

We will need to obtain FDA approval of any proposed product names, and any failure or delay associated with such approval may adversely impact our business.

Any name we intend to use for our product candidates will require approval from the FDA regardless of whether we have secured a formal trademark registration from the U.S. Patent and Trademark Office. The FDA typically conducts a review of proposed product names, including an evaluation of potential for confusion with other product names. The FDA may also object to a product name if it believes the name inappropriately implies medical claims. If the FDA objects to any of our proposed product names, we may be required to adopt an alternative name for our product candidates. If we adopt an alternative name, we would lose the benefit of our existing trademark applications for such product candidate, such as linaclotide, and may be required to expend significant additional resources in an effort to identify a suitable product name that would qualify under applicable trademark laws, not infringe the existing rights of third parties and be acceptable to the FDA. We may be unable to build a successful brand identity for a new trademark in a timely manner or at all, which would limit our ability to commercialize our product candidates.

If we fail to comply with healthcare regulations, we could face substantial penalties and our business, operations and financial condition could be adversely affected.

As a manufacturer of pharmaceuticals, even though we do not and will not control referrals of healthcare services or bill directly to Medicare, Medicaid or other third-party payors, certain federal and state healthcare laws and regulations pertaining to fraud and abuse and patients' rights are and will be applicable to our business. We could be subject to healthcare fraud and abuse and patient privacy

regulation by both the federal government and the states in which we conduct our business. The regulations include:

- the federal healthcare program anti-kickback law, which prohibits, among other things, persons from soliciting, receiving or providing remuneration, directly or indirectly, to induce either the referral of an individual, for an item or service or the purchasing or ordering of a good or service, for which payment may be made under federal healthcare programs such as the Medicare and Medicaid programs;
- federal false claims 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, and which may apply to entities like us
  which provide coding and billing advice to customers;
- the federal Health Insurance Portability and Accountability Act of 1996, which prohibits
  executing a scheme to defraud any healthcare benefit program or making false statements
  relating to healthcare matters and which also imposes certain requirements relating to the
  privacy, security and transmission of individually identifiable health information;
- the Federal Food, Drug, and Cosmetic Act, which among other things, strictly regulates drug product marketing, prohibits manufacturers from marketing drug products for off-label use and regulates the distribution of drug samples; and
- state law equivalents of each of the above federal laws, such as anti-kickback and false claims laws which may apply to items or services reimbursed by any third-party payor, including commercial insurers, and state laws governing the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways and often are not preempted by federal laws, thus complicating compliance efforts.

If our operations are found to be in violation of any of the laws described above or any governmental regulations that apply to us, we may be subject to penalties, including civil and criminal penalties, damages, fines and the curtailment or restructuring of our operations. Any penalties, damages, fines, curtailment or restructuring of our operations could adversely affect our ability to operate our business and our financial results. Although compliance programs can mitigate the risk of investigation and prosecution for violations of these laws, the risks cannot be entirely eliminated. Any action against us for violation of these laws, even if we successfully defend against it, could cause us to incur significant legal expenses and divert our management's attention from the operation of our business. Moreover, achieving and sustaining compliance with applicable federal and state privacy, security and fraud laws may prove costly.

# Our business involves the use of hazardous materials, and we must comply with environmental laws and regulations, which can be expensive and restrict how we do business.

Our activities involve the controlled storage, use and disposal of hazardous materials. We are subject to federal, state, city and local laws and regulations governing the use, manufacture, storage, handling and disposal of these hazardous materials. Although we believe that the safety procedures we use for handling and disposing of these materials comply with the standards prescribed by these laws and regulations, we cannot eliminate the risk of accidental contamination or injury from these materials. In the event of an accident, local, city, state or federal authorities may curtail the use of these materials and interrupt our business operations. We do not currently maintain hazardous materials insurance coverage.

#### Our business and operations would suffer in the event of system failures.

Despite the implementation of security measures, our internal computer systems and those of our contractors and consultants are vulnerable to damage from computer viruses, unauthorized access, natural disasters, terrorism, war and telecommunication and electrical failures. Such an event could cause interruption of our operations. For example, the loss of clinical trial data from completed or ongoing clinical trials for linaclotide could result in delays in our regulatory approval efforts and significantly increase our costs. To the extent that any disruption or security breach were to result in a loss of or damage to our data, or inappropriate disclosure of confidential or proprietary information, we could incur liability and the development of our product candidates could be delayed.

# If the proprietary strain-development platform of our biomanufacturing segment does not succeed, we may lose our investment in Microbia, Inc.

Our biomanufacturing segment consists of our majority ownership interest in Microbia. Microbia focuses on building a specialty biochemicals business based on a proprietary strain-development platform. The success of this segment is dependent on Microbia successfully developing, scaling up manufacturing and establishing commercial partnerships for biochemicals produced using its industrial biotechnology platform. If Microbia is not successful in developing products from its strain-development platform or partnering its platform, we may lose some or all of the value of our equity investment in Microbia.

### Risks Related to Intellectual Property

Limitations on our patent rights relating to our product candidates may limit our ability to prevent third parties from competing against us.

Our success will depend on our ability to obtain and maintain patent protection for our product candidates, preserve our trade secrets, prevent third parties from infringing upon our proprietary rights and operate without infringing upon the proprietary rights of others.

The strength of patents in the pharmaceutical industry involves complex legal and scientific questions and can be uncertain. Patent applications in the U.S. and most other countries are confidential for a period of time until they are published, and publication of discoveries in scientific or patent literature typically lags actual discoveries by several months or more. As a result, we cannot be certain that we were the first to conceive inventions covered by our patents and pending patent applications or that we were the first to file patent applications for such inventions. In addition, we cannot be certain that our patent applications will be granted, that any issued patents will adequately protect our intellectual property or that such patents will not be challenged, narrowed, invalidated or circumvented.

We also rely upon unpatented trade secrets, unpatented know-how and continuing technological innovation to develop and maintain our competitive position, which we seek to protect, in part, by confidentiality agreements with our employees and our collaborators and consultants. We also have agreements with our employees and selected consultants that obligate them to assign their inventions to us. It is possible that technology relevant to our business will be independently developed by a person that is not a party to such an agreement. Furthermore, if the employees and consultants that are parties to these agreements breach or violate the terms of these agreements, we may not have adequate remedies, and we could lose our trade secrets through such breaches or violations. Further, our trade secrets could otherwise become known or be independently discovered by our competitors.

In addition, the laws of certain foreign countries do not protect proprietary rights to the same extent or in the same manner as the U.S., and therefore, we may encounter problems in protecting and defending our intellectual property in certain foreign jurisdictions.

If we are sued for infringing intellectual property rights of third parties, it will be costly and time consuming, and an unfavorable outcome in that litigation would have a material adverse effect on our business.

Our commercial success depends upon our ability and the ability of our collaborators to develop, manufacture, market and sell our product candidates and use our proprietary technologies without infringing the proprietary rights of third parties. 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 products. As the biotechnology and pharmaceutical industry expands and more patents are issued, the risk increases that our potential products may give rise to claims of infringement of the patent rights of others. There may be issued patents of third parties of which we are currently unaware, that may be infringed by our product candidates. Because patent applications can take many years to issue, there may be currently pending applications which may later result in issued patents that our product candidates may infringe.

We may be exposed to, or threatened with, future litigation by third parties alleging that our product candidates infringe their intellectual property rights. If one of our product candidates is found to infringe the intellectual property rights of a third party, we or our collaborators could be enjoined by a court and required to pay damages and could be unable to commercialize the applicable product candidate unless we obtain a license to the patent. A license may not be available to us on acceptable terms, if at all. In addition, during litigation, the patent holder could obtain a preliminary injunction or other equitable relief which could prohibit us from making, using or selling our products, pending a trial on the merits, which may not occur for several years.

There is a substantial amount of litigation involving patent and other intellectual property rights in the biotechnology and pharmaceutical industries generally. If a third party claims that we or our collaborators infringe its intellectual property rights, we may face a number of issues, including, but not limited to:

- infringement and other intellectual property claims which, regardless of merit, may be expensive and time-consuming to litigate and may divert our management's attention from our core business;
- substantial damages for infringement, which we may have to pay if a court decides that the product at issue infringes on or violates the third party's rights, and, if the court finds that the infringement was willful, we could be ordered to pay treble damages and the patent owner's attorneys' fees;
- a court prohibiting us from selling our product unless the third party licenses its rights to us, which it is not required to do;
- if a license is available from a third party, we may have to pay substantial royalties, fees or grant cross-licenses to our intellectual property rights; and
- redesigning our products so they do not infringe, which may not be possible or may require substantial monetary expenditures and time.

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

Competitors may infringe our patents. 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 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 application at risk of not issuing.

Interference proceedings brought by the U.S. Patent and Trademark Office may be necessary to determine the priority of inventions with respect to our patents and patent applications or those of our collaborators. An unfavorable outcome could require us to cease using the technology or to attempt to license rights to it from the prevailing party. Our business could be harmed if a prevailing party does not offer us a license on terms that are acceptable to us. Litigation or interference proceedings may fail and, even if successful, may result in substantial costs and distraction of our management and other employees. We may not be able to prevent, alone or with our collaborators, misappropriation of our proprietary rights, particularly in countries where the laws may not protect those rights as fully as in the U.S.

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. In addition, there could be public announcements of the results of hearings, motions or other interim proceeding or developments. If securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of our Class A 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.

The U.S. Patent and Trademark Office and various foreign governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other provisions during the patent process. There are situations in which noncompliance can result in abandonment or lapse of a patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. In such an event, competitors might be able to enter the market earlier than would otherwise have been the case.

We have not yet registered trademarks for linaclotide in our potential markets, and failure to secure those registrations could adversely affect our business.

We have not yet registered trademarks for linaclotide in any jurisdiction. Although we have filed trademark applications for linaclotide in the U.S., our trademark applications in the U.S. and any other jurisdictions where we may file may not be allowed for registration, and our registered trademarks may not be maintained or enforced. During trademark registration proceedings, we may receive rejections. Although we are given an opportunity to respond to those rejections, we may be unable to overcome such rejections. In addition, in the U.S. Patent and Trademark Office and in comparable agencies in many foreign jurisdictions, third parties are given an opportunity to oppose pending trademark applications and to seek to cancel registered trademarks. Opposition or cancellation proceedings may be filed against our trademarks, and our trademarks may not survive such proceedings.

We may be subject to claims that our employees have wrongfully used or disclosed alleged trade secrets of their former employers.

We employ individuals who were previously employed at other biotechnology or pharmaceutical companies, including our competitors or potential competitors, and as such, we may be subject to claims that these employees, or we, have used or disclosed trade secrets or other proprietary information of their former employers. Litigation may be necessary to defend against these claims. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to management.

#### Risks Related to Our Finances and Capital Requirements

We have incurred significant operating losses since our inception and anticipate that we will incur continued losses for the foreseeable future.

We have a limited operating history. In recent years, we have focused primarily on developing linaclotide, with the goal of supporting regulatory approval for this product candidate. We have financed our operations primarily through private placements of capital stock and our collaboration and license arrangements, and we have incurred losses in each year since our inception in 1998. We incurred net losses attributable to Ironwood Pharmaceuticals, Inc. of approximately \$71.2 million, \$53.9 million and \$52.8 million in the years ended December 31, 2009, 2008 and 2007, respectively. As of December 31, 2009, we had an accumulated deficit of approximately \$314.6 million. Our prior losses, combined with expected future losses, have had and will continue to have an adverse effect on our stockholders' equity and working capital. We expect our expenses to increase in connection with our efforts to commercialize linaclotide and our research and development of our other product candidates. As a result, we expect to continue to incur significant and increasing operating losses for the foreseeable future. Because of the numerous risks and uncertainties associated with developing pharmaceutical products, we are unable to predict the extent of any future losses or when, or if, we will become profitable.

#### We have not generated any product revenue from our product candidates and may never be profitable.

Our ability to become profitable depends upon our ability to generate revenue from sales. To date, we have not generated any product revenue, and we do not know when, or if, we will generate any such revenue. Our ability to generate product revenue depends on a number of factors, including, but not limited to, our ability to:

- successfully complete our ongoing and planned clinical trials for linaclotide;
- obtain regulatory approvals for linaclotide;
- if regulatory approvals are received, manufacture commercial quantities of linaclotide at acceptable cost levels;
- optimize our relationship to co-develop and co-promote linaclotide in the U.S. with Forest, to commercialize linaclotide in Europe with Almirall and to commercialize linaclotide in certain Asian countries with Astellas; and
- identify and enter into one or more strategic collaborations to market and sell linaclotide outside of North America, Europe and those Asian countries.

Even if linaclotide is approved for commercial sale, we anticipate incurring significant costs associated with commercialization. We may not achieve profitability after generating product sales. If we are unable to generate product revenues, we will not become profitable.

## We may need additional funding and may be unable to raise capital when needed, which would force us to delay, reduce or eliminate our product development programs or commercialization efforts.

Developing product candidates, conducting clinical trials, establishing manufacturing relationships and marketing drugs are expensive and uncertain. We believe that our cash on hand as of the date of this Annual Report on Form 10-K and additional cash milestone payments we may receive from our collaborators will enable us to launch and commercialize linaclotide in the U.S. with our partner, Forest, and to fund our currently contemplated research and development efforts for at least the next five years based on our existing business plan. However, unforeseen circumstances may arise, or our

strategic imperatives could change, requiring us to seek to raise additional funds. The amount and timing of our future funding requirements will depend on many factors, including, but not limited to:

- the rate of progress and cost of our clinical trials and other product development programs for linaclotide and our other product candidates;
- the costs and timing of in-licensing additional product candidates or acquiring other complementary companies;
- the timing of any regulatory approvals of our product candidates;
- the costs of establishing sales, marketing and distribution capabilities; and
- the status, terms and timing of any collaborative, licensing, co-promotion or other arrangements.

Additional funding may not be available on acceptable terms or at all. If adequate funds are not available, we may be required to delay, reduce the scope of or eliminate one or more of our development programs or our commercialization efforts.

#### Our quarterly operating results may fluctuate significantly.

We expect our operating results to be subject to quarterly fluctuations. Our net loss and other operating results will be affected by numerous factors, including:

- variations in the level of expenses related to our development programs;
- addition or termination of clinical trials;
- any intellectual property infringement lawsuit in which we may become involved;
- regulatory developments affecting our product candidates;
- our execution of any collaborative, licensing or similar arrangements, and the timing of payments we may make or receive under these arrangements;
- the achievement and timing of milestone payments under our existing collaboration and license agreements; and
- if linaclotide receives regulatory approval, the level of underlying demand for that product and wholesalers' buying patterns.

If our quarterly operating results fall below the expectations of investors or securities analysts, the price of our Class A common stock could decline substantially. Furthermore, any quarterly fluctuations in our operating results may, in turn, cause the price of our stock to fluctuate substantially.

Raising additional funds by issuing securities may cause dilution to existing stockholders and raising funds through borrowing or licensing arrangements may restrict our operations or require us to relinquish proprietary rights.

If we need to raise additional funds by issuing equity securities as a result of unforeseen circumstances or new strategic imperatives, our existing stockholders' ownership will be diluted. If we seek to raise capital through debt financing, such transactions typically require covenants that restrict operating activities. Any borrowings under debt financing will need to be repaid, which creates additional financial risk, particularly if our business or prevailing financial market conditions are not conducive to paying-off or refinancing our outstanding debt obligations at maturity.

If we raise additional funds through collaboration, licensing or other similar arrangements, it may be necessary to relinquish potentially valuable rights to our product candidates or technologies, or to grant licenses on terms that are not favorable to us. If adequate funds are not available when and if needed, our ability to achieve profitability or to respond to competitive pressures would be significantly limited, and we may be required to delay, significantly curtail or eliminate one or more of our programs.

#### We have limited experience complying with public company obligations.

We face increased legal, accounting, administrative and other costs and expenses as a public company. Compliance with the Sarbanes-Oxley Act of 2002, as well as other rules of the SEC, for example, will result in significant initial cost to us as well as ongoing increases in our legal, audit and financial compliance costs. As a newly public company, we will soon become subject to Section 404 of the Sarbanes-Oxley Act relating to internal controls over financial reporting. Although we have not identified any material weaknesses in our internal controls over financial reporting to date, we cannot assure that our internal controls over financial reporting will prove to be effective.

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 Class A 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, including at our subsidiary, Microbia, could cause us to fail to meet our reporting obligations. 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 Class A common stock.

Our ability to use net operating loss and tax credit carryforwards and certain built-in losses to reduce future tax payments is limited by provisions of the Internal Revenue Code, and may be subject to further limitation as a result of our IPO.

Sections 382 and 383 of the Internal Revenue Code of 1986, as amended, or the Code, contain rules that limit the ability of a company that undergoes an ownership change, which is generally any change in ownership of more than 50% of its stock over a three-year period, to utilize its net operating loss and tax credit carryforwards and certain built-in losses recognized in years after the ownership change. These rules generally operate by focusing on ownership changes involving stockholders owning directly or indirectly 5% or more of the stock of a company and any change in ownership arising from a new issuance of stock by the company. Generally, if an ownership change occurs, the yearly taxable income limitation on the use of net operating loss and tax credit carryforwards and certain built-in losses is equal to the product of the applicable long term tax exempt rate and the value of the company's stock immediately before the ownership change. We may be unable to offset our taxable income with losses, or our tax liability with credits, before such losses and credits expire and therefore would incur larger federal income tax liability.

In addition, it is possible that our IPO, either on a standalone basis or when combined with future transactions (including issuances of new shares of our Class A common stock or Class B common stock and sales of shares of our Class A common stock), will cause us to undergo one or more additional ownership changes. In that event, we generally would not be able to use our pre-change loss or credit carryovers or certain built-in losses prior to such ownership change to offset future taxable income in excess of the annual limitations imposed by Sections 382 and 383 and those attributes already subject to limitations (as a result of our prior ownership changes) may be subject to more stringent limitations. As of December 31, 2009, we had approximately \$111.3 million of net operating loss carryforwards and

approximately \$14.7 million of tax credit carryforwards at risk of limitation in the event of an ownership change.

#### Risks Relating to Securities Markets and Investment in Our Stock

The concentration of our capital stock ownership with our pre-IPO investors (and their affiliates), founders, directors, executives and employees will limit your ability to influence certain corporate matters.

Each share of Class A common stock and each share of Class B common stock has one vote per share on all matters except in the following matters (in which each share of our Class B common stock has ten votes per share and each share of our Class A common stock has one vote per share):

- adoption of a merger or consolidation agreement involving Ironwood;
- a sale of all or substantially all of Ironwood's assets;
- a dissolution or liquidation of Ironwood; and,
- every matter, if and when any individual, entity or "group" (as such term is used in Regulation 13D of the Securities Exchange Act of 1934, as amended (the "Exchange Act") has, or has publicly disclosed (through a press release or a filing with the SEC) an intent to have, beneficial ownership of 30% or more of the number of outstanding shares of Class A common stock and Class B common stock, combined.

Because of our dual class common stock structure, the holders of our Class B common stock, who consist of our pre-IPO investors (and their affiliates), founders, directors, executives and employees, will continue to be able to control the corporate matters listed above if any such matter is submitted to our stockholders for approval even if they come to own less than 50% of the outstanding shares of our common stock. As of March 15, 2010, the holders of our Class A common stock own 19.7% and the holders of our Class B common stock own 80.3% of the outstanding shares of Class A common stock and Class B common stock, combined. However, because of our dual class common stock structure these holders of our Class A common stock have 2.4% and holders of our Class B common stock have 97.6% of the total votes in each of the matters identified in the list above. This concentrated control with our Class B common stock holders limits the ability of the Class A common stockholders to influence those corporate matters and, as a result, we may take actions that many of our stockholders do not view as beneficial, which could adversely affect the market price of our Class A common stock.

Anti-takeover provisions under our charter documents and Delaware law could delay or prevent a change of control which could negatively impact the market price of our Class A common stock.

Provisions in our certificate of incorporation and bylaws may have the effect of delaying or preventing a change of control. These provisions include the following:

- Our certificate of incorporation provides for a dual class common stock structure. As a result of this structure, our pre-IPO investors (and each of their affiliates), founders, directors, executives and employees, each of whom hold shares of our Class B common stock, will have significant influence over certain matters requiring stockholder approval, including significant corporate transactions, such as a merger. This concentrated control could discourage others from initiating a change of control transaction that other stockholders may view as beneficial.
- Our board of directors is divided into three classes serving staggered three-year terms, such that not all members of the board will be elected at one time. This staggered board structure prevents stockholders from replacing the entire board at a single stockholders' meeting.

- Our board of directors has the right to elect directors to fill a vacancy created by the expansion of the board of directors or the resignation, death or removal of a director, which prevents stockholders from being able to fill vacancies on our board of directors.
- Our board of directors may issue, without stockholder approval, shares of preferred stock. The ability to authorize preferred stock makes it possible for our board of directors to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to acquire us.
- Stockholders must provide advance notice to nominate individuals for election to the board of directors or to propose matters that can be acted upon at a stockholders' meeting. Furthermore, stockholders may only remove a member of our board of directors for cause. These provisions may discourage or deter a potential acquiror from conducting a solicitation of proxies to elect such acquiror's own slate of directors or otherwise attempting to obtain control of our company.
- Our stockholders may not act by written consent. As a result, a holder, or holders, controlling a
  majority of our capital stock would not be able to take certain actions outside of a stockholders'
  meeting.
- Special meetings of stockholders may be called only by the chairman of our board of directors, our chief executive officer, our president or a majority of our board of directors. As a result, a holder, or holders, controlling a majority of our capital stock would not be able to call a special meeting.
- A majority of the outstanding shares of Class B common stock are required to amend our certificate of incorporation and a super-majority (80%) of the outstanding shares of Class B common stock are required to amend our by-laws, which make it more difficult to change the provisions described above.

In addition, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which may prohibit certain business combinations with stockholders owning 15% or more of our outstanding voting stock. These and other provisions in our certificate of incorporation and our bylaws and in the Delaware General Corporation Law could make it more difficult for stockholders or potential acquirers to obtain control of our board of directors or initiate actions that are opposed by the then-current board of directors.

If holders of shares of our Class B common stock convert their shares of Class B common stock into shares of Class A common stock and exercise their registration rights, a significant number of shares of our Class A common stock could be sold into the market, which could reduce the trading price of our Class A common stock and impede our ability to raise future capital.

As of March 15, 2010, holders of approximately 70,170,477 shares of Class B common stock have rights under our eighth amended and restated investors' rights agreement, subject to some conditions, to require us to file registration statements covering their shares or to include their shares in registration statements that we may file for ourselves or other stockholders. These rights terminate on February 2, 2015, or for any particular holder with registration rights who at such time holds less than 1% of our outstanding Class B common stock, at such time following our IPO when all securities held by that stockholder subject to registration rights may be sold pursuant to Rule 144 under the Securities Act of 1933, as amended, or the Securities Act, within a single 90 day period. We also have registered all shares of Class A common stock that we may issue under our equity compensation plans. Now that we have registered these shares, they can be freely sold in the public market upon issuance, subject to certain lock-up restrictions that terminate on or about August 1, 2010.

To the extent outstanding stock options are exercised, there will be further dilution to investors in our Class A common stock.

As of December 31, 2009, we had options to purchase 13,691,579 shares of Class B common stock outstanding, with exercise prices ranging from \$0.10 to \$7.36 per share and a weighted average exercise price of \$2.45 per share. Upon the vesting of each of these options, the holder may exercise his or her options, which would result in further dilution to investors in our Class A common stock.

#### We expect that the price of our Class A common stock will fluctuate substantially.

The market price of our Class A common stock may be highly volatile due to many factors, including:

- the results from our clinical trials, including our current and planned Phase 3 clinical trials for linaclotide;
- FDA or international regulatory actions, including actions on regulatory applications for any of our product candidates;
- the commercial performance of any of our product candidates that receive marketing approval;
- announcements of the introduction of new products by us or our competitors;
- market conditions in the pharmaceutical and biotechnology sectors;
- announcements concerning product development results or intellectual property rights of others;
- litigation or public concern about the safety of our potential products;
- actual and anticipated fluctuations in our quarterly operating results;
- deviations in our operating results from the estimates of securities analysts;
- additions or departures of key personnel;
- any third-party coverage and reimbursement policies for linaclotide;
- · developments concerning current or future strategic collaborations; and
- discussion of us or our stock price in the financial or scientific press or in online investor communities.

The realization of any of the risks described in these "Risk Factors" could have a dramatic and material adverse impact on the market price of our Class A common stock. In addition, class action litigation has often been instituted against companies whose securities have experienced periods of volatility. Any such litigation brought against us could result in substantial costs and a diversion of management attention, which could hurt our business, operating results and financial condition.

#### Future sales of our Class A common stock may depress our stock price.

While we do not currently anticipate making additional offers of Class A common stock, such sales, or the perception in the market that the holders of a large number of shares intend to sell shares, could reduce the market price of our Class A common stock. As of March 15, 2010, we have outstanding 19,166,667 shares of Class A common stock and 78,291,122 shares of Class B common stock.

We have never paid dividends on our capital stock, and because we do not anticipate paying any cash dividends in the foreseeable future, capital appreciation, if any, of our common stock will be the sole source of gain on an investment in our Class A common stock.

We have paid no cash dividends on any of our classes of capital stock to date, and we currently intend to retain our future earnings, if any, to fund the development and growth of our business. We do not anticipate paying any cash dividends on our common stock in the foreseeable future. As a result, capital appreciation, if any, of our common stock will be your sole source of gain for the foreseeable future.

#### SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K, including the sections titled "Risk Factors," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Business," contains forward-looking statements. Forward-looking statements convey our current expectations or forecasts of future events. All statements contained in this Annual Report on Form 10-K other than statements of historical fact are forward-looking statements. Forward-looking statements include statements regarding our future financial position, business strategy, budgets, projected costs, plans and objectives of management for future operations. The words "may," "continue," "estimate," "intend," "plan," "will," "believe," "project," "expect," "seek," "anticipate" and similar expressions may identify forward-looking statements, but the absence of these words does not necessarily mean that a statement is not forward-looking. These forward-looking statements include, among other things, statements about:

- the progress of, timing of and amount of expenses associated with our research, development and commercialization activities;
- the timing, conduct and success of our clinical studies for our product candidates;
- our ability to obtain U.S. and foreign regulatory approval for our product candidates and the ability of our product candidates to meet existing or future regulatory standards;
- our expectations regarding federal, state and foreign regulatory requirements;
- the therapeutic benefits and effectiveness of our product candidates;
- the accuracy of our estimates of the size and characteristics of the markets that may be addressed by our product candidates;
- our ability to manufacture sufficient amounts of our product candidates for clinical studies and products for commercialization activities;
- our plans with respect to collaborations and licenses related to the development, manufacture or sale of our product candidates;
- our expectations as to future financial performance, expense levels and liquidity sources;
- the timing of commercializing our product candidates;
- our plan to develop a high-quality commercial organization;
- our ability to compete with other companies that are or may be developing or selling products that are competitive with our product candidates;
- anticipated trends and challenges in our potential markets;
- · our ability to attract and motivate key personnel; and
- other factors discussed elsewhere in this Annual Report on Form 10-K.

Any or all of our forward-looking statements in this Annual Report on Form 10-K may turn out to be inaccurate. We have based these forward-looking statements largely on our current expectations and projections about future events and financial trends that we believe may affect our financial condition, results of operations, business strategy and financial needs. They may be affected by inaccurate assumptions we might make or by known or unknown risks and uncertainties, including the risks, uncertainties and assumptions described in "Risk Factors." In light of these risks, uncertainties and assumptions, the forward-looking events and circumstances discussed in this Annual Report on Form 10-K may not occur as contemplated, and actual results could differ materially from those anticipated or implied by the forward-looking statements.

You should not unduly rely on these forward-looking statements, which speak only as of the date of this Annual Report on Form 10-K. Unless required by law, we undertake no obligation to publicly update or revise any forward-looking statements to reflect new information or future events or otherwise. You should, however, review the factors and risks we describe in the reports we will file from time to time with the SEC after the date of this Annual Report on Form 10-K.

#### Item 1B. Unresolved Staff Comments

None.

#### Item 2. Properties

Our corporate headquarters and principal operations are located in Cambridge, Massachusetts, where, as of December 31, 2009, we lease and occupy approximately 114,400 rentable square feet of office and laboratory space in two buildings located at 301 Binney Street and 320 Bent Street. On February 9, 2010, we amended our lease at 301 Binney Street. Under the amended lease, effective as of February 9, 2010, we lease an additional 50,000-60,000 square feet of the 301 Binney Street facility. Pursuant to our lease at 301 Binney Street, we will add approximately 38,800 square feet of lab and office space at this location on or before January 1, 2011. The term of our lease at 301 Binney Street expires on January 31, 2016, with our option to extend the term of the lease for two additional five year periods. The term of our lease at 320 Bent Street expires on December 31, 2010, with our option to extend the term of the lease for three additional five year periods. We believe that our facilities are suitable and adequate for our needs.

#### Item 3. Legal Proceedings

On November 7, 2008, we filed a complaint in the United States District Court for the District of Columbia (Ironwood Pharmaceuticals, Inc. v. Hon. Jon W. Dudas) against the U.S. Patent and Trademark Office seeking judgment that the patent term adjustment of U.S. Patent 7,371,727 be lengthened from 411 days to 702 days. We believe that the U.S. Patent and Trademark Office miscalculated the patent term adjustment for one of our patents. The case is currently stayed pending final disposition of the appeal of Wyeth and Elan Pharma International Ltd. v. Hon. Jon W. Dudas regarding a similar legal issue. The Wyeth appeal was decided January 7, 2010 in favor of Wyeth and the U.S. Patent and Trademark Office announced on January 21, 2010 that it would not seek further review of this case. Neither the U.S. Patent and Trademark Office nor the Department of Justice has indicated when the stay will be lifted or what action will be taken in our suit or in any of the over 100 cases filed by other parties as a result of the Wyeth decision at the district court level last year. We do not expect that this litigation, regardless of the decision, will have a material adverse effect on our business.

#### Item 4. Reserved

#### PART II

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

Shares of our Class A common stock are traded on the NASDAQ Global Market under the symbol "IRWD." Our shares have only been publicly traded since February 3, 2010; as a result, we have not set forth quarterly information with respect to the high and low prices for our common stock for the two most recent fiscal years. As of March 15, 2010, there was one stockholder of record of our Class A common stock and 354 stockholders of record of our Class B common stock. The number of record holders is based upon the actual number of holders registered on the books of the company at such date and does not include holders of shares in "street names" or persons, partnerships, associations, corporations or other entities identified in security position listings maintained by depositories.

We did not purchase any of our equity securities during the period covered by this report. The following sets forth information regarding all unregistered securities sold during the last three fiscal years. Within the last three years, we issued and sold the following securities:

- 1. From January 1, 2007 through December 31, 2009, we issued options to purchase 6,494,350 shares of our Class B common stock to our employees, consultants and directors with a range of exercise prices from \$2.94 to \$7.36 per share.
- 2. From January 1, 2007 through December 31, 2009, we issued 454,536 shares of Class B common stock upon the exercise of stock options to our employees, consultants and directors.
- 3. From January 1, 2007 through December 31, 2009, we issued 515,549 restricted shares of our Class B common stock to our employees, consultants and directors.
- 4. On February 1, 2007 and April 2, 2007, combined, we issued 8,000,000 shares of Series F convertible preferred stock for aggregate consideration of \$50,000,000 to a group of accredited investors.
- 5. On September 1, 2009, we received aggregate consideration of \$24,999,996 in exchange for 2,083,333 shares of Series G convertible preferred stock in connection with a milestone payment that became payable on July 22, 2009 pursuant to a collaboration agreement with an accredited investor.
- 6. On September 12, 2008, September 16, 2008 and August 17, 2009, combined, we issued 4,162,419 shares of Series H convertible preferred stock for aggregate consideration of \$49,949,028 to a group of accredited investors.
- 7. On November 13, 2009, we received aggregate consideration of \$15,000,018 in exchange for 681,819 shares of Series I convertible preferred stock in connection with a milestone payment that became payable on November 2, 2009 pursuant to a license agreement with an accredited investor.

The sales and issuances of restricted securities in the transactions described in the paragraphs above were deemed to be exempt from registration under the Securities Act in reliance upon the following exemptions:

- with respect to the transactions described in paragraphs 1 through 3, Rule 701 promulgated under Section 3(b) of the Securities Act, as transactions pursuant to a written compensation benefit plan and contracts relating to compensation as provided under Rule 701; and
- with respect to certain of the transactions described in paragraphs 1 through 3 and all of the transactions described in paragraphs 4 through 7, Section 4(2) of the Securities Act, or Rule 506

of Regulation D promulgated thereunder, as transactions by an issuer not involving any public offering. The recipients of securities in the transaction represented their intentions to acquire the securities for investment only and not with a view to or for sale in connection with any distribution thereof and appropriate legends were affixed to the securities issued in such transactions. The sales of these securities were made without general solicitation or advertising. All recipients were accredited investors or had adequate access, through their relationship with us, to information about us.

There were no underwritten offerings employed in connection with any of the transactions set forth above. Each share of our convertible preferred stock described above converted into one share of our Class B common stock upon the completion of our IPO.

In February 2010, we completed our IPO of our Class A common stock pursuant to a registration statement on Form S-1, as amended (File No. 333-163275) that was declared effective on February 2, 2010. Under the registration statement, we registered the offering and sale of an aggregate of 19,166,667 shares of our Class A common stock. All of the 19,166,667 shares of Class A common stock registered under the registration statement, which included 2,500,000 shares of our Class A common stock sold pursuant to an over-allotment option granted to the underwriters, were sold at a price to the public of \$11.25 per share. J.P. Morgan Securities Inc., Morgan Stanley & Co. Incorporated and Credit Suisse Securities (USA) LLC acted as joint book running managers of the offering and as representatives of the underwriters. The offering commenced on February 3, 2010 and closed on February 8, 2010. The sale of shares pursuant to the over-allotment option occurred on February 12, 2010. As a result of our IPO, we raised a total of \$215.6 million in gross proceeds, and approximately \$203.1 million in net proceeds after deducting underwriting discounts and commissions of \$10.5 million and estimated offering expenses of \$2.0 million.

Subject to preferences that may apply to any shares of preferred stock outstanding at the time, the holders of Class A common stock and Class B common stock will be entitled to share equally in any dividends that our board of directors may determine to issue from time to time. In the event a dividend is paid in the form of shares of common stock or rights to acquire shares of common stock, the holders of Class A common stock will receive Class A common stock, or rights to acquire Class A common stock, as the case may be, and the holders of Class B common stock will receive Class B common stock, or rights to acquire Class B common stock, as the case may be.

We have never declared or paid any cash dividends on our capital stock and we do not currently anticipate declaring or paying cash dividends on our capital stock in the foreseeable future. We currently intend to retain all of our future earnings, if any, to finance operations. Any future determination relating to our dividend policy will be made at the discretion of our board of directors and will depend on a number of factors, including future earnings, capital requirements, financial conditions, future prospects, contractual restrictions and covenants and other factors that our board of directors may deem relevant.

#### Item 6. Selected Consolidated Financial Data

You should read the following selected financial data together with our consolidated financial statements and the related notes appearing elsewhere in this Annual Report on Form 10-K. We have derived the consolidated statements of operations data for the years ended December 31, 2009, 2008, 2007 and the consolidated balance sheet data as of December 31, 2009 and 2008 from our audited financial statements included elsewhere in this Annual Report on Form 10-K. We have derived the consolidated statement of operations data for the years ended December 31, 2006 and 2005 and consolidated balance sheet data as of December 31, 2007, 2006 and 2005 from our audited financial

statements not included in this Annual Report on Form 10-K. Our historical results for any prior period are not necessarily indicative of results to be expected in any future period.

|   | Years Ended December 31,   |                    |                           |                    |                    |  |  |
|---|--|--------------------|---------------------------|--------------------|--------------------|--|--|
|   | 2009   | 2008               | 2007                      | 2006               | 2005               |  |  |
|   |  | (In thousands,     | except share and          | per share data)    |                    |  |  |
| Consolidated Statement of Operations Data:  |  |                    |                           |                    |                    |  |  |
| Revenue:  | ¢ 24.221   | ¢ 10.202           | ¢ 4.600                   | ¢                  | ф                  |  |  |
| Collaborative arrangements Services   | \$ 34,321<br>1,781   | \$ 18,383<br>3,833 | \$ 4,608<br>5,856         | 3,140              | \$ —<br>1,574      |  |  |
| Total revenue   | 36,102   | 22,216             | 10,464                    | 3,140              | 1,574              |  |  |
| Research and development <sup>(1)</sup>   | 84,892   | 59,809             | 57,246                    | 35,543             | 23,011             |  |  |
| General and administrative <sup>(1)</sup> Restructuring   | 23,980<br>1,207  | 18,328             | 10,833                    | 7,192              | 4,627              |  |  |
| Total operating expenses  | 110,079  | 78,137             | 68,079                    | 42,735             | 27,638             |  |  |
| Loss from operations Other income (expense):  | (73,977)   | (55,921)           | (57,615)                  | (39,595)           | (26,064)           |  |  |
| Interest expense  | (474)  | (334)              | (263)                     | (217)              | (207)              |  |  |
| Interest and investment income Remeasurement of forward   | 243  | 2,124              | 4,118                     | 2,533              | 353                |  |  |
| purchase contracts  | 600  | (900)              | 600                       |                    |                    |  |  |
| Other income (expense), net   | 369  | 890                | 4,455                     | 2,316              | 146                |  |  |
| Loss before income tax benefit Income tax benefit   | (73,608)<br>(296)  | , ,                | (53,160)                  | (37,279)           | (25,918)           |  |  |
| Net loss  | (73,312)   | (55,031)           | (53,160)                  | (37,279)           | (25,918)           |  |  |
| interest  | 2,127  | 1,157              | 408                       | 99                 |                    |  |  |
| Net loss attributable to Ironwood Pharmaceuticals, Inc  | <u>\$ (71,185)</u>   | \$ (53,874)        | <u>\$ (52,752)</u>        | <u>\$ (37,180)</u> | <u>\$ (25,918)</u> |  |  |
| Net loss per share attributable to Ironwood Pharmaceuticals, Inc.—basic and diluted <sup>(2)</sup>  | \$ (10.00)   | \$ (7.82)          | \$ (7.91)                 | \$ (5.79)          | \$ (4.35)          |  |  |
| Weighted average number of common shares used in net loss per share attributable to Ironwood Pharmaceuticals, Inc.—basic and diluted <sup>(2)</sup> | 7,116,774  | 6,889,817          | 6,666,601                 | 6,417,499          | 5,963,326          |  |  |
| (1) Includes share-based compensation   | (1) Includes share-based compensation expense as indicated in the following table: |                    |                           |                    |                    |  |  |
| Research and development General and administrative   |  |                    | \$1,708 \$79.<br>1,086 35 |                    | 53<br>64           |  |  |

<sup>(2)</sup> In February 2010, we completed the offering of 19,166,667 million shares of Class A common stock in an initial public offering, which included 2,500,000 shares of our Class A common stock sold pursuant to an over-allotment option granted to the underwriters. The offering commenced on

February 3, 2010 and closed on February 8, 2010. The sale of shares pursuant to the over-allotment option occurred on February 12, 2010. At the time our IPO became effective, 69,904,843 shares outstanding of our convertible preferred stock automatically converted into 70,391,620 shares of our Class B common stock. As of December 31, 2009, we had 7,854,602 shares of Class B common stock outstanding. The weighted average number of common shares outstanding for the periods presented is calculated using the common stock outstanding as of December 31, 2009.

|   |            |           | December 31,   |           |          |
|---|------------|-----------|----------------|-----------|----------|
|   | 2009       | 2008      | 2007           | 2006      | 2005     |
|   |            |           | (In thousands) |           |          |
| <b>Consolidated Balance Sheet Data:</b>       |            |           |                |           |          |
| Cash, cash equivalents and available-for-sale |            |           |                |           |          |
| securities                                    | \$ 123,145 | \$ 89,767 | \$ 91,936      | \$ 49,501 | \$ 5,134 |
| Working capital (deficit) (excluding          |            |           |                |           |          |
| deferred revenue)                             | 107,571    | 86,780    | 105,043        | 43,793    | (1,635)  |
| Total assets                                  | 162,451    | 138,371   | 135,635        | 57,520    | 10,490   |
| Deferred revenue, including current portion.  | 126,202    | 66,054    | 74,392         | 930       | 543      |
| Long-term debt, including current portion     | 3,074      | 1,815     | 2,963          | 2,243     | 4,182    |
| Capital lease obligations, including current  |            |           |                |           |          |
| portion                                       | 255        | 306       |                |           |          |
| Total liabilities                             | 162,441    | 95,382    | 90,207         | 9,900     | 8,570    |
| Convertible preferred stock                   | 298,350    | 273,400   | 223,802        | 173,851   | 98,924   |
| Noncontrolling interest                       | 3,212      | 5,339     | 6,495          | 6,903     |          |
| Total stockholders' deficit                   | (298,340)  | (230,411) | (178,374)      | (126,231) | (97,004) |

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

#### **Forward-Looking Information**

The following discussion of our financial condition and results of operations should be read in conjunction with our financial statements and the notes to those financial statements appearing elsewhere in this Annual Report on Form 10-K. This discussion contains forward-looking statements that involve significant risks and uncertainties. As a result of many factors, such as those set forth under "Risk Factors" in Item 1A of this Annual Report on Form 10-K, our actual results may differ materially from those anticipated in these forward-looking statements.

#### Overview

We are an entrepreneurial pharmaceutical company that discovers, develops and intends to commercialize innovative medicines targeting important therapeutic needs. To achieve this, we are building a sustainable culture centered on creating and marketing important new drugs. Our experienced team of researchers is focused on a portfolio of internally discovered drug candidates that includes one Phase 3 drug candidate (linaclotide), one Phase 1 pain drug candidate, and multiple preclinical programs. We have pursued a partnering strategy for the commercialization of linaclotide that has enabled us to retain significant control over linaclotide's development and commercialization, share the costs of drug development and commercialization with collaborators whose capabilities complement ours, and retain approximately half of the future long-term value of linaclotide in the major pharmaceutical markets, should linaclotide meet our sales expectations.

We were incorporated in Delaware as Microbia, Inc. (which is now the name of our majority-owned subsidiary) on January 5, 1998. On April 7, 2008, we changed our name to Ironwood Pharmaceuticals, Inc.

We operate in two reportable business segments—human therapeutics and biomanufacturing. Our human therapeutics segment comprises the vast majority of our business, and it consists of the development and commercialization of our product candidates, including linaclotide. Our biomanufacturing segment, which comprises a much smaller part of our business, consists of our majority ownership interest in Microbia, which focuses on building a specialty biochemicals business based on a proprietary strain-development platform. Our human therapeutics segment represented 99% and 97% and our biomanufacturing segment represented 1% and 3% of our total assets at December 31, 2009 and 2008, respectively. Our human therapeutics segment represented 82%, 86% and 95% and our biomanufacturing segment represented 18%, 14% and 5% of our loss from operations for the years ended December 31, 2009, 2008 and 2007, respectively.

To date we have dedicated substantially all of our activities to the research and development of our product candidates. We have not generated any revenue to date from product sales and have incurred significant operating losses since our inception in 1998. We incurred net losses attributable to Ironwood Pharmaceuticals, Inc. of approximately \$71.2 million, \$53.9 million and \$52.8 million in the years ended December 31, 2009, 2008 and 2007, respectively. As of December 31, 2009, we had an accumulated deficit of approximately \$314.6 million, and we expect to incur losses for the foreseeable future.

#### **Financial Overview**

Revenue. Revenue to date from our human therapeutics segment is generated primarily through collaborative research, development and/or commercialization agreements. The terms of these agreements typically include payment to us of one or more of the following: nonrefundable, up-front license fees; milestone payments; and royalties on product sales. Revenue from our human therapeutics segment is shown in our consolidated statements of operations as collaborative arrangements revenue. Revenue from our biomanufacturing segment is generated by our subsidiary, Microbia, which has entered into research and development service agreements with various third parties. These agreements generally provide for fees for research and development services rendered, and may include additional payments at the conclusion of the research period upon achieving specified events. These service agreements also contemplate royalty payments to us on future sales of Microbia's customers' products. Revenue from our biomanufacturing segment is shown as services revenue. We expect our revenue to fluctuate for the foreseeable future as our collaborative arrangements revenue is principally based on the achievement of clinical and commercial milestones. Additionally, we expect our services revenue to decline as existing Microbia customer contracts are completed and no new services contracts are anticipated.

Research and development expense. Research and development expense consists of expenses incurred in connection with the discovery and development of our product candidates. These expenses consist primarily of compensation, benefits and other employee related expenses, facility costs and third-party contract costs relating to research, formulation, manufacturing, preclinical study and clinical trial activities. Also included in research and development expenses are the costs of revenue related to the Microbia services contracts. We charge all research and development expenses to operations as incurred. Under our Forest collaboration agreement we are reimbursed for certain research and development expenses and we net these reimbursements against our research and development expenses as incurred.

Our lead product candidate is linaclotide and it represents the largest portion of our research and development expense for our product candidates. Linaclotide is a first-in-class compound currently in confirmatory Phase 3 trials evaluating its safety and efficacy for the treatment of patients with IBS-C or CC. Our other clinical stage program is IW-6118, an inhibitor of FAAH being evaluated for the treatment of pain and inflammation. IW-6118 is a novel small molecule inhibitor of FAAH, that decreased inflammation and pain and elevated fatty acid amides in preclinical models. We have an

active IND for IW-6118 and are currently investigating the safety, tolerability, and pharmacokinetic properties of this molecule in Phase 1 studies.

The following table sets forth our research and development expenses related to linaclotide and IW-6118 for the years ended December 31, 2009, 2008 and 2007. We began tracking program expenses for linaclotide in 2004, and program expenses from inception to December 31, 2009 were approximately \$96.7 million. We began tracking program expenses for IW-6118 in 2008, and program expenses from inception to December 31, 2009 were approximately \$7.9 million. These expenses relate primarily to external costs associated with manufacturing, preclinical studies and clinical trial costs. The expenses for linaclotide include both reimbursements to us by Forest as well as our portion of costs incurred by Forest for linaclotide and invoiced to us under the cost-sharing provisions of our collaboration agreement. Costs related to facilities, depreciation, share-based compensation and research and development support services are not directly charged to programs.

|             | Years Ended December 31, |                             |          |  |
|-------------|--------------------------|-----------------------------|----------|--|
|             | 2009                     | 2008                        | 2007     |  |
|             |                          | (unaudited)<br>in thousands | )        |  |
| Linaclotide | \$41,052                 | \$13,588                    | \$23,450 |  |
| IW-6118     | 5,339                    | 2,577                       |          |  |

The lengthy process of securing FDA approvals for new drugs requires the expenditure of substantial resources. Any failure by us to obtain, or any delay in obtaining, regulatory approvals would materially adversely affect our product development efforts and our business overall. Accordingly, we cannot currently estimate with any degree of certainty the amount of time or money that we will be required to expend in the future on linaclotide or IW-6118 prior to their regulatory approval, if such approval is ever granted. As a result of these uncertainties surrounding the timing and outcome of any approvals, we are currently unable to estimate precisely when, if ever, linaclotide, IW-6118 or any of our other product candidates will generate revenues and cash flows.

We have multiple product candidates in earlier stages of development, and are pursuing various therapeutic opportunities. We invest carefully in our pipeline, and the commitment of funding for each subsequent stage of our development programs is dependent upon the receipt of clear, positive data. In addition, we are actively engaged in identifying externally-discovered drug candidates at various stages of clinical development and accessing them through in-licensing or acquisition. In evaluating potential assets, we apply the same criteria as those used for investments in internally-discovered assets. To date, we have not in-licensed any drug candidates, but we do expect to do so from time to time.

The majority of our external costs are spent on linaclotide, as costs associated with later stage clinical trials are, in most cases, more significant than those incurred in earlier stages of our pipeline. We expect external costs related to the linaclotide program to begin decreasing if its current Phase 3 clinical trials yield positive data and no other clinical trials are necessary to obtain regulatory approval in the U.S. If IW-6118 is successful in early stage clinical trials, we would expect the program's external costs to increase as it progresses through later stage clinical trials. The remainder of our research and development expense is not tracked by project as it consists primarily of our internal costs, and it benefits multiple projects that are in earlier stages of development and which typically share resources.

The successful development of our product candidates is highly uncertain and subject to a number of risks including, but not limited to:

- The duration of clinical trials may vary substantially according to the type, complexity and novelty of the product candidate.
- The FDA and comparable agencies in foreign countries impose substantial requirements on the introduction of therapeutic pharmaceutical products, typically requiring lengthy and detailed

laboratory and clinical testing procedures, sampling activities and other costly and time-consuming procedures.

- Data obtained from nonclinical and clinical activities at any step in the testing process may be adverse and lead to discontinuation or redirection of development activity. Data obtained from these activities also are susceptible to varying interpretations, which could delay, limit or prevent regulatory approval.
- The duration and cost of discovery, nonclinical studies and clinical trials may vary significantly over the life of a product candidate and are difficult to predict.
- The costs, timing and outcome of regulatory review of a product candidate.
- The emergence of competing technologies and products and other adverse market developments.

As a result of the uncertainties discussed above, we are unable to determine the duration and costs to complete current or future clinical stages of our product candidates or when, or to what extent, we will generate revenues from the commercialization and sale of any of our product candidates. Development timelines, probability of success and development costs vary widely. We anticipate that we will make determinations as to which additional programs to pursue and how much funding to direct to each program on an ongoing basis in response to the scientific and clinical data of each product candidate, as well as ongoing assessments of such product candidate's commercial potential.

We expect our research and development costs to continue to be substantial for the foreseeable future and to increase with respect to our product candidates other than linaclotide as we advance those product candidates through preclinical studies and clinical trials.

General and administrative expense. General and administrative expense consists primarily of compensation, benefits and other employee related expenses for personnel in our administrative, finance, legal, information technology, business development, commercial and human resource functions. Other costs include the legal costs of pursuing patent protection of our intellectual property, facility costs and professional fees for accounting and legal services. As a result of our IPO in February 2010, we anticipate increases in general and administrative expense relating to operating as a public company. These increases will likely include legal fees, accounting fees, costs associated with implementing and complying with the requirements of the Sarbanes-Oxley Act of 2002, and directors' and officers' insurance premiums, as well as fees for investor relations services. We also anticipate substantial expenses related to developing the organization necessary to commercialize linaclotide.

#### **Critical Accounting Policies and Estimates**

Our discussion and analysis of our financial condition and results of operations is based upon our consolidated financial statements prepared in accordance with generally accepted accounting principles in the United States, or GAAP. The preparation of these financial statements requires us to make certain estimates and assumptions that affect the reported amounts of assets and liabilities and the reported amounts of revenues and expenses during the reported periods. These items are monitored and analyzed by us for changes in facts and circumstances, and material changes in these estimates could occur in the future. These critical estimates and assumptions are based on our historical experience, our observance of trends in the industry, and various other factors that are believed to be reasonable under the circumstances and form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Changes in estimates are reflected in reported results for the period in which they become known. Actual results may differ from our estimates.

We believe that our application of the following accounting policies, each of which require significant judgments and estimates on the part of management, are the most critical to aid in fully

understanding and evaluating our reported financial results. Our significant accounting policies are more fully described in Note 2, *Summary of Significant Accounting Policies*, to our consolidated financial statements appearing elsewhere in this Annual Report on Form 10-K.

#### Revenue Recognition

Our revenue is generated primarily through collaborative research and development and license agreements. The terms of these agreements typically include payment to us of one or more of the following: nonrefundable, up-front license fees; milestone payments; the sale of drug substance to our collaborators; and royalties on product sales. In addition, we generate services revenue through agreements that generally provide for fees for research and development services rendered, and may include additional payments at the conclusion of the research period upon achieving specified events. These service agreements also contemplate royalty payments to us on future sales of our customers' product.

We recognize revenue when there is persuasive evidence that an arrangement exists, services have been rendered or delivery has occurred, the price is fixed or determinable, and collection is reasonably assured. We evaluate revenue from agreements that have multiple elements and account for those components as separate elements when the following criteria are met:

- the delivered items have value to the customer on a stand-alone basis;
- there is objective and reliable evidence of fair value of the undelivered items; and
- if there is a general right of return relative to the delivered items, delivery or performance of the undelivered items is considered probable and within our control.

The determination that multiple elements in an arrangement meet the criteria for separate units of accounting requires us to exercise our judgment.

The determination of whether we should recognize revenue on a gross or net basis involves judgment based on the relevant facts and circumstances, which relate primarily to whether we act as a principal or agent in the process of generating revenues from our collaboration and licensing arrangements.

For certain of our arrangements, particularly our license agreement with Almirall, it is required that taxes be withheld on payments to us. We have adopted a policy to recognize revenue net of these tax withholdings.

#### Up-Front License Fees

We recognize revenues from nonrefundable, up-front license fees related to collaboration and license agreements, including the \$70.0 million up-front license fee under the Forest collaboration agreement entered into in September 2007 and the \$40.0 million up-front license fee, of which \$38.0 million was received net of foreign withholding taxes, under the Almirall license agreement entered into in April 2009, on a straight-line basis over the contracted or estimated period of performance due to our continued involvement in research and development. The period of performance over which the revenues are recognized is typically the period over which the research and/or development is expected to occur. As a result, we often are required to make estimates regarding drug development and commercialization timelines for compounds being developed pursuant to a collaboration or license agreement. Because the drug development process is lengthy and our collaboration and license agreements typically cover activities over several years, this approach has resulted in the deferral of significant amounts of revenue into future periods. In addition, because of the many risks and uncertainties associated with the development of drug candidates, our estimates regarding the period of performance may change in the future. Any change in our estimates could

result in substantial changes to the period over which the revenues from an up-front license fee are recognized. To date, we have had no material changes to our estimated periods of continuing involvement under existing collaboration and license agreements. In the case where we cannot reliably estimate the period of performance due to our continued involvement in research and development, we defer the commencement of revenue recognition of the up-front license fee until the earlier of either (i) the expected performance period of our joint steering committee obligations can be reasonably and reliably estimated or (ii) we are no longer contractually obligated to perform all joint steering committee duties. As a result, at December 31, 2009, we deferred all of the \$30.0 million up-front licensing fee received from Astellas in November 2009.

#### Milestones

At the inception of each agreement that includes contingent milestone payments, we evaluate whether the contingencies underlying each milestone are substantive and at risk to both parties, specifically reviewing factors such as the scientific and other risks that must be overcome to achieve the milestone, as well as the level of effort and investment required. If we do not consider a milestone to be substantive and at risk to both parties, the revenues from the related milestone payment cannot be recognized when the milestone is achieved, but must be recognized on a straight-line basis over the remaining performance period. All of the milestones that have been achieved to date under our Forest collaboration agreement and our Almirall license agreement have been considered substantive. As of December 31, 2009, we had not achieved any milestones under our Astellas license agreement.

In those circumstances where a substantive milestone is achieved, collection of the related receivable is reasonably assured and we have remaining obligations to perform under the collaboration arrangement, we recognize as revenue on the date the milestone is achieved an amount equal to the applicable percentage of the performance period that has elapsed as of the date the milestone is achieved, with the balance being deferred and recognized over the remaining period of performance.

Payments received or reasonably assured after performance obligations are fully met are recognized as earned. Because the recognition of a substantive milestone under a collaboration agreement typically requires the completion of a number of activities conducted over a significant period of time, the expenses related to achieving the milestone often are incurred prior to the period in which the milestone payment is recognized. When we do achieve milestones that we consider substantive under any of our collaborations, we may experience significant fluctuations in our collaborative revenues from quarter to quarter and year to year depending on the timing of achieving such substantive milestones.

#### Services Revenue

Services revenue is recognized when there is persuasive evidence that an arrangement exists, services have been rendered or delivery has occurred, the price is fixed or determinable, and collection is reasonably assured. Revenue from research and development services rendered is recognized as services are performed. These arrangements may include additional payments upon achieving specified events. We recognize these additional payments as revenue when achieved and the payments are due and collectible. Royalty revenue related to research and development services is recognized in the period the sales occur.

#### Research and Development Expense

All research and development expenses are expensed as incurred. Research and development expenses comprise costs incurred in performing research and development activities, including compensation, benefits and other employee costs; share-based compensation expense; laboratory supplies and other direct expenses; facilities expenses; overhead expenses; contractual services,

including clinical trial and related clinical manufacturing expenses; and other external expenses. In addition, research and development expense includes reimbursements from Forest for services performed pursuant to our collaboration agreement. Clinical trial expenses include expenses associated with CROs. The invoicing from CROs for services rendered can lag several months. We accrue the cost of services rendered in connection with CRO activities based on our estimate of site management, monitoring costs, project management costs, and investigator fees. We maintain regular communication with our CRO vendors to gauge the reasonableness of our estimates. Differences between actual clinical trial expenses and estimated clinical trial expenses recorded have not been material and are adjusted for in the period in which they become known. Under our Forest collaboration agreement we are reimbursed for certain research and development expenses and we net these reimbursements against our research and development expenses as incurred. Nonrefundable advance payments for research and development activities are capitalized and expensed over the related service period or as goods are received.

#### Share-based Compensation Expense

Prior to January 1, 2006, we accounted for employee share-based awards, including stock options, to employees using the intrinsic value method. Under the intrinsic value method, compensation expense was measured on the date of award as the difference, if any, between the deemed fair value of our common stock and the option exercise price, multiplied by the number of options granted. The option exercise prices and fair value of our common stock were determined by our management and board of directors based on a review of various objective and subjective factors. No compensation expense was recorded for stock options issued to employees prior to January 1, 2006 for awards with fixed amounts and with fixed exercise prices at least equal to the fair value of our common stock at the date of grant.

Effective January 1, 2006, we recognize compensation expense for all share-based awards granted, modified, repurchased or cancelled on or after January 1, 2006, based on the grant date fair value. These costs are recognized on a straight-line basis over the requisite service period for all time-based vested awards. We continue to account for share-based awards granted prior to January 1, 2006 under the intrinsic value method.

We record the expense of services rendered by non-employees based on the estimated fair value of the stock option using the Black-Scholes option-pricing model as of the respective vesting date. Further, we expense the fair value of non-employee stock options over the vesting term of the underlying stock options.

For employee share-based awards subsequent to January 1, 2006, we estimate the fair value of the share-based awards, including stock options, using the Black-Scholes option-pricing model. Determining the fair value of share-based awards requires the use of highly subjective assumptions, including the expected term of the award and expected stock price volatility. The weighted average assumptions used in calculating the fair value of share-based awards granted in 2009, 2008 and 2007 are set forth below:

|                                     | December 31, |            |          |
|-------------------------------------|--------------|------------|----------|
|                                     | 2009         | 2008       | 2007     |
| Volatility                          | 62.3%        | 64.0%      | 65.0%    |
| Dividend yield                      | <b>—</b> %   | <b>—</b> % | <u> </u> |
| Expected life of options (in years) | 6.5          | 6.5        | 7.0      |
| Risk-free interest rate             | 2.7%         | 3.1%       | 4.6%     |

Years Ended

The assumptions used in determining the fair value of share-based awards represent management's best estimates, but these estimates involve inherent uncertainties and the application of management judgment. As a result, if factors change, and we use different assumptions, our share-based compensation could be materially different in the future. The risk-free interest rate used for each grant

is based on a zero-coupon U.S. Treasury instrument with a remaining term similar to the expected term of the share-based award. Because we do not have a sufficient history to estimate the expected term, we use the simplified method for estimating the expected term. The simplified method is based on the average of the vesting tranches and the contractual life of each grant. Because there was no public market for our common stock prior to our initial public offering, we lacked company-specific historical and implied volatility information. Therefore, we estimate our expected stock volatility based on that of publicly-traded peer companies, and we expect to continue to use this methodology until such time as we have adequate historical data regarding the volatility of our publicly-traded stock price. For purposes of identifying publicly-traded peer companies, we selected publicly-traded companies that are in the biopharmaceutical industry, have products or product candidates in similar therapeutic areas (gastrointestinal dysfunction and pain management) and stages of preclinical and clinical development as us, have sufficient trading history to derive a historic volatility rate and have similar vesting terms as our granted options. We have not paid and do not anticipate paying cash dividends on our shares of common stock; therefore, the expected dividend yield is assumed to be zero. We also recognize compensation expense for only the portion of options that are expected to vest. Accordingly, we have estimated expected forfeitures of stock options based on our historical forfeiture rate, adjusted for known trends, and used these rates in developing a future forfeiture rate. Our forfeiture rates were 5.8%, 4.4% and 5.0% as of December 31, 2009, 2008 and 2007, respectively. If our actual forfeiture rate varies from our historical rates and estimates, additional adjustments to compensation expense may be required in future periods.

We have historically granted stock options at exercise prices not less than the fair value of our common stock as determined by our board of directors, with input from management. Our board of directors has historically determined, with input from management, the estimated fair value of our common stock on the date of grant based on a number of objective and subjective factors, including:

- the prices at which we sold shares of convertible preferred stock;
- the superior rights and preferences of securities senior to our common stock at the time of each grant;
- the likelihood of achieving a liquidity event such as an initial public offering or sale of our company;
- our historical operating and financial performance and the status of our research and product development efforts;
- achievement of enterprise milestones, including our entering into collaboration and license agreements; and
- external market conditions affecting the biotechnology industry sector.

In connection with the preparation of the consolidated financial statements for the years ended December 31, 2009, 2008 and 2007, our board of directors also considered valuations provided by management in determining the fair value of our common stock. Such valuations were prepared as of April 24, June 30, September 30 and December 31, 2007, March 31, June 30, October 28 and December 31, 2008, and March 31, June 30, September 30, November 2 and December 31, 2009, and valued our common stock at \$3.05, \$3.62, \$3.76, \$4.33, \$4.67, \$4.98, \$4.89, \$5.00, \$5.48, \$7.36, \$11.75 and \$12.05 per share, respectively. The valuations have been used to estimate the fair value of our common stock as of each option grant date and in calculating share-based compensation expense. Our board of directors has consistently used the most recent quarterly valuation provided by management for determining the fair value of our common stock unless a specific event occurs that necessitates an interim valuation.

The valuations were prepared consistent with the American Institute of Certified Public Accountants Practice Aid, *Valuation of Privately-Held Company Equity Securities Issued as Compensation*, or the Practice Aid. We used the guideline company method and the similar transaction method of the market approach, which compare our company to similar publicly-traded companies or transactions, and an income approach, which looks at projected future cash flows, to value our company from among the alternatives discussed in the Practice Aid. In addition, as we had several series of convertible preferred stock outstanding prior to our initial public offering in February 2010, it was also necessary to allocate our company's value to the various classes of stock, including stock options. As provided in the Practice Aid, there are several approaches for allocating enterprise value of a privately-held company among the securities held in a complex capital structure. The possible methodologies include the probability-weighted expected return method, the option-pricing method and the current value method.

We used the probability-weighted expected return method described in the Practice Aid to allocate the enterprise values to the common stock. Under this method, the value of our common stock is estimated based upon an analysis of future values for our company assuming various future outcomes, the timing of which is based on the plans of our board of directors and management. Under this approach, share value is based on the probability-weighted present value of expected future investment returns, considering each of the possible outcomes available to us, as well as the rights of each share class. We estimated the fair value of our common stock using a probability-weighted analysis of the present value of the returns afforded to our stockholders under each of four possible future scenarios. Three of the scenarios assumed a stockholder exit, either through an IPO or a sale of our company. The fourth scenario assumed a sale of our company at a value that is less than the cumulative amounts invested by our preferred stockholders.

For the year ended December 31, 2007, we assumed two separate IPO scenarios based on our company's profile at the time. Through 2007, we were advancing the linaclotide program in human clinical trials as well as a second early stage clinical product candidate. Given the relative risk of these two programs, one IPO scenario included both programs advancing in the clinic at the time of an IPO. Based on the relative risks of both programs and the significant effect on the potential value of a liquidity event if one program failed, a second IPO scenario was added, which included only linaclotide advancing in the clinic at the time of an IPO. This second scenario was included to better reflect the potential outcomes for our company. Beginning with the March 31, 2008 valuation, due to the suspension in March 2008 of the second product candidate program, we eliminated the two product IPO scenario and we utilized a one product IPO scenario reflecting only linaclotide advancing in the clinic at the time of an IPO. Beginning with the October 28, 2008 valuation, we again included two separate IPO scenarios to better reflect our company's risk profile at that time. The linaclotide program was by then advancing in two indications, CC and IBS-C. We believe that the IBS-C indication has a significantly higher market value and higher clinical risk for Ironwood. To better reflect the potential liquidity outcomes for linaclotide, the first IPO scenario included an assumption of successful Phase 3 clinical trials for both the CC and IBS-C indications at the time of an IPO, and the second IPO scenario reflected successful Phase 3 clinical trials in only the CC indication at the time of the IPO. For both IPO scenarios and the sale scenario, the estimated future values of our common stock were calculated using assumptions including: the expected pre-money or sale valuations based on the market approach, and beginning in September 2007, the income approach using the discounted cash flow method, and the expected dates of the future expected IPO or sale. For the sale at an assumed price less than the liquidation preference scenario, the estimated future and present values of our common stock were calculated using assumptions including the estimated aggregate enterprise value that could be attained through such a sale and the estimated expected date of the future sale. The present values of our common stock under each scenario were then calculated using a risk-adjusted discount rate. Finally, the calculated present values for our common stock were probability-weighted based on our estimate of the relative occurrence of each scenario to derive the concluded value of our common stock.

Based on our initial public offering price of \$11.25, the intrinsic value of the options outstanding at December 31, 2009, was \$120.5 million, of which \$70.0 million related to vested options and \$50.5 million related to unvested options.

There are significant judgments and estimates inherent in the determination of these valuations. These judgments and estimates include assumptions regarding our future performance, the time to completing an IPO or other liquidity event, and the timing of and probability of launching our product candidate as well as determinations of the appropriate valuation methods. If we had made different assumptions, our share-based compensation expense, net loss and net loss per share could have been significantly different.

We have also granted performance-based stock options with terms that allow the recipients to vest in a specific number of shares based upon the achievement of performance-based goals as specified in the grants. Share-based compensation expense associated with these performance-based stock options is recognized if the performance condition is considered probable of achievement using management's best estimates of the time to vesting for the achievement of the performance milestones. If the actual achievement of the performance milestones varies from our estimates, share-based compensation expense could be materially different than what is recorded in the period. The cumulative effect on current and prior periods of a change in the estimated time to vesting for performance-based stock options will be recognized as compensation cost in the period of the revision, and recorded as a change in estimate.

We have also granted time-accelerated stock options with terms that allow the acceleration in vesting of the stock options upon the achievement of performance-based milestones specified in the grants. Share-based compensation expense associated with these time-accelerated stock options is recognized over the requisite service period of the awards or the implied service period, if shorter.

While the assumptions used to calculate and account for share-based compensation awards represents management's best estimates, these estimates involve inherent uncertainties and the application of management's judgment. As a result, if revisions are made to our underlying assumptions and estimates, our share-based compensation expense could vary significantly from period to period.

The total estimated compensation cost related to non-vested stock options and stock awards, with time-based vesting, not yet recognized was approximately \$9.4 million, \$6.4 million and \$3.9 million as of December 31, 2009, 2008 and 2007, respectively. The weighted-average period over which this expense is expected to be recognized is approximately 3.84 years. At December 31, 2009, an additional \$3.6 million of share-based compensation related to options subject to performance-based milestone vesting was not yet recognized. See Notes 2 and 15 to our consolidated financial statements located in this Annual Report on Form 10-K for further discussion of share-based compensation.

#### Fair Value of Financial Instruments

In September 2007, we entered into a collaboration agreement with Forest, which included a contingent equity investment in the form of a forward purchase contract, which required Forest to purchase 2,083,333 shares of our Series G convertible preferred stock at a price of \$12.00 per share if we achieved a specific clinical milestone. This preferred stock, which was issued to Forest in September 2009, had rights and conditions substantially identical to our outstanding preferred stock prior to the issuance. These shares of convertible preferred stock converted into 2,083,333 shares of our Class B common stock at the time of our IPO in February 2010.

In April 2009, we entered into a license agreement with Almirall, which also included a contingent equity investment in the form of a forward purchase contract, which required Almirall to purchase 681,819 shares of our Series I convertible preferred stock, if a specific clinical milestone is met, at a price of \$22.00 per share. The milestone in this agreement is a different milestone from the one

contained in the Forest collaboration agreement. This preferred stock, which was issued to Almirall and for which we received \$15.0 million of cash proceeds on November 13, 2009, had rights and conditions substantially identical to our outstanding preferred stock. These shares of convertible preferred stock converted into 681,819 shares of our Class B common stock at the time of our IPO in February 2010.

We evaluated both of these financial instruments and determined that because we may be required to settle these instruments by transferring assets to Forest and Almirall due to "deemed liquidation" provisions of the preferred stock, these instruments should be considered assets or liabilities. Each contingent equity investment was assessed at fair market value at its inception. A significant input in the valuation of the forward purchase contracts is the fair value of our convertible preferred shares which are estimated using the probability-weighted expected return method. Under the probabilityweighted expected return method, the value of our convertible preferred shares is calculated based on an analysis of potential future values of our company assuming various future liquidity events, the timing and amount of which are based on estimates from our company's management. The resulting preferred share value was based on the probability-weighted present value of the expected future returns, considering each of the possible outcomes as well as the rights of each preferred share class. At each measurement date, assumptions used in the probability-weighted expected return model, including future values, liquidity dates and scenario weightings, were consistent with the assumptions used in our common stock valuations at such time, as described above. The calculated discount or premium from the pre-determined price paid by Forest and Almirall for their shares in excess of the estimated fair value of our convertible preferred stock at the expected time of meeting the respective milestone was then discounted using a company risk-adjusted rate consistent with the common stock valuations being performed at the time to arrive at the present value of the respective forward purchase contract.

At the inception of the Forest collaboration agreement, the fair value of our convertible preferred stock to be issued upon the achievement of the milestone was equal to the sum of the probabilityweighted present values for the four identified possible exit scenarios—initial public offering (either one-product IPO or two-product IPO or later a one-indication IPO and two-indication IPO), sale and sale at an assumed price below the liquidation preference, all with June 30, 2009 as the expected milestone achievement date. The probability weight assigned to the two-product IPO scenario was 20% and the probability weight assigned to the one-product IPO scenario was 70%. The probability weight assigned to the sale scenario was 5% and the probability weight assigned to the sale at an assumed price less than the liquidation preference scenario was 5%. The resulting enterprise values for each scenario were discounted to an estimated investment date of October 31, 2008, using a risk-adjusted discount rate of 20%. Based on this calculation, the fair value of the convertible preferred stock to be issued upon achievement of the Forest milestone was valued at \$5.32 per share. The resulting difference of \$6.68 per share between the fair value of \$5.32 and the purchase price of \$12.00 per share represented the estimated premium Forest would pay above the fair value of the convertible preferred stock. This per share premium was then adjusted by the probability of achieving the milestone, which was estimated at 80%, based on clinical risk, resulting in a probability adjusted premium of \$5.34 per share. The resulting total premium was then discounted as of September 12, 2007 using a company risk-adjusted discount rate of 20%. As a result, the Forest contingent equity investment was valued at the inception of the agreement to be \$9.0 million, which represents the fair value of the premium that Forest would pay for shares of our stock should the milestone be achieved.

The fair value of our convertible preferred stock to be issued upon the achievement of the Almirall milestone at the inception of the license agreement in April 2009 was equal to the sum of the probability-weighted present values for the four identified possible exit scenarios—one-indication IPO, two-indication IPO, sale and sale at an assumed price less than the liquidation preference, all with September 30, 2010 as the expected event date. The resulting enterprise values for each scenario were discounted as of the investment date which was estimated to be October 15, 2009. Based on this

calculation, the fair value of the convertible preferred stock to be issued upon achievement of the Almirall milestone was estimated at \$9.23 per share. The resulting difference of \$12.77 per share between the estimated fair value of \$9.23 and the purchase price of \$22.00 per share is the estimated premium Almirall will pay above the fair value of the convertible preferred stock. This per share premium was then adjusted by the probability of achieving the milestone, which was estimated at 75%, resulting in a probability adjusted premium of \$9.58 per share. The resulting total premium was then discounted as of April 30, 2009 at 20%. As a result, the Almirall contingent equity investment was valued at the inception of the agreement to be \$6.0 million, which represents the fair value of the premium that Almirall would pay for shares of our stock should the milestone be achieved.

In addition to valuing these instruments at their inception, we are also required to remeasure the fair value of our contingent equity investments at each reporting period, using current assumptions, with changes in value recorded as other income or expense. At December 31, 2007, we remeasured the fair value of the Forest contingent equity investment using valuation methodologies consistent with those used at inception, updated for current assumptions. Based on these calculations, the fair value of the convertible preferred stock to be issued upon achievement of the milestone was valued at \$5.28 per share. The resulting difference of \$6.72 per share was then adjusted by the probability of achieving the milestone, which was again estimated as 80%, resulting in a probability adjusted premium of \$5.38 per share. The resulting total premium was then discounted as of December 31, 2007 using an appropriate risk-adjusted discount rate of 21%. As a result, the Forest contingent equity investment was valued at December 31, 2007 to be \$9.6 million.

At December 31, 2008, we remeasured the fair value of the Forest contingent equity investment using valuation methodologies consistent with those used at December 31, 2007, updated for current assumptions. Based on these calculations, the fair value of the convertible preferred stock to be issued upon achievement of the Forest milestone was estimated at \$7.16 per share. The resulting difference of \$4.84 per share was then adjusted by an updated probability of achieving the milestone, which was now estimated at 90%, resulting in a probability adjusted premium of \$4.35 per share. The resulting total premium was then discounted as of December 31, 2008 using a risk-adjusted discount rate of 19%. As a result, the Forest contingent equity investment was valued at December 31, 2008 to be \$8.7 million.

On July 22, 2009, we achieved the Forest milestone, thus triggering the Forest equity investment. As a result, we remeasured the fair value of the equity investment as of July 22, 2009 using valuation methodologies consistent with those used at December 31, 2008, updated for current assumptions including a change to the investment date to July 22, 2009. Based on these calculations, the fair value of the convertible preferred stock to be issued upon achievement of the Forest milestone was calculated at \$7.76 per share. The resulting difference of \$4.24 per share was not adjusted by a probability discount as the milestone was achieved. The resulting total premium was then discounted as of July 22, 2009 using a risk-adjusted discount rate of 20%. As a result, the Forest contingent equity investment was valued at July 22, 2009 to be \$8.8 million and at that time we reclassified the forward purchase contract as a reduction to convertible preferred stock. On September 1, 2009, we received from Forest \$25.0 million for the 2,083,333 shares of Series G convertible preferred stock.

On November 2, 2009, we achieved the Almirall milestone, thus triggering the Almirall equity investment. As a result, we remeasured the fair value of the equity investment as of November 2, 2009 using valuation methodologies consistent with those used at April 30, 2009, updated for current assumptions including a change to the investment date to November 2, 2009. Based on these calculations, the fair value of the convertible preferred stock to be issued upon achievement of the Almirall milestone was estimated at \$12.41 per share. The resulting difference of \$9.59 per share was not adjusted by a probability discount as the milestone was achieved. The resulting total premium was then discounted as of November 2, 2009 using a risk-adjusted discount rate of 15%. As a result, the Almirall contingent equity investment was valued at November 2, 2009 to be \$6.5 million and at that time we reclassified the forward purchase contract as a reduction to convertible preferred stock. On

November 13, 2009, we received from Almirall \$15.0 million for the 681,819 shares of Series I convertible preferred stock.

#### **Results of Operations**

The following discussion summarizes the key factors our management believes are necessary for an understanding of our consolidated financial statements.

|  | Years Ended December 31, |            |            |  |
|--|--------------------------|------------|------------|--|
|  | 2009                     | 2008       | 2007       |  |
|  | (                        |            |            |  |
| Revenue:   |                          |            |            |  |
| Collaborative arrangements                       | \$ 34,321                | \$ 18,383  | \$ 4,608   |  |
| Services   | 1,781                    | 3,833      | 5,856      |  |
| Total revenue                                    | 36,102                   | 22,216     | 10,464     |  |
| Operating expenses:                              |                          |            |            |  |
| Research and development                         | 84,892                   | 59,809     | 57,246     |  |
| General and administrative                       | 23,980                   | 18,328     | 10,833     |  |
| Restructuring                                    | 1,207                    |            |            |  |
| Total operating expenses                         | 110,079                  | 78,137     | 68,079     |  |
| Loss from operations                             | (73,977)                 | (55,921)   | (57,615)   |  |
| Other income (expense):                          |                          |            |            |  |
| Interest expense                                 | (474)                    | (334)      | (263)      |  |
| Interest and investment income                   | 243                      | 2,124      | 4,118      |  |
| Remeasurement of forward purchase contracts      | 600                      | (900)      | 600        |  |
| Other income (expense), net                      | 369                      | 890        | 4,455      |  |
| Loss before income tax benefit                   | (73,608)                 | (55,031)   | (53,160)   |  |
| Income tax benefit                               | (296)                    |            |            |  |
| Net loss   | (73,312)                 | (55,031)   | (53,160)   |  |
| Net loss attributable to noncontrolling interest | 2,127                    | 1,157      | 408        |  |
| Net loss attributable to Ironwood                |                          |            |            |  |
| Pharmaceuticals, Inc                             | <u>\$(71,185</u> )       | \$(53,874) | \$(52,752) |  |

# Year Ended December 31, 2009 Compared to Year Ended December 31, 2008 Revenue

|                            | Years Ended<br>December 31, |          | Chang           | ge              |
|----------------------------|-----------------------------|----------|-----------------|-----------------|
|                            | 2009                        | 2008     | \$              | %               |
|                            | (dollars in thousands)      |          |                 |                 |
| Revenue:                   |                             |          |                 |                 |
| Collaborative arrangements | \$34,321                    | \$18,383 | \$15,938        | 86.7%           |
| Services                   | 1,781                       | 3,833    | (2,052)         | <u>(53.5</u> )% |
| Total revenue              | \$36,102                    | \$22,216 | <u>\$13,886</u> | 62.5%           |

Collaborative Arrangements. The increase in revenue from collaborative arrangements for the year ended December 31, 2009 compared to the year ended December 31, 2008 was primarily due to increases in revenue from the Forest collaboration and the Almirall license agreement. During the year

ended December 31, 2009, we recognized approximately \$9.2 million of revenue related to a \$20.0 million Forest milestone payment we received in July 2009, and a total of approximately \$7.0 million of revenue related to the \$38.0 million up-front license payment received from Almirall in May 2009 and the amortization of the deferred revenue resulting from recording the initial \$6.0 million valuation of the Almirall forward purchase contract. In both the years ended December 31, 2009 and 2008, we recognized a total of approximately \$15.8 million of revenue related to the amortization of the up-front license payment from Forest and the initial \$9.0 million valuation of the Forest forward purchase contract. In the year ended December 31, 2008, we recognized approximately \$2.6 million of revenue related to a clinical milestone achieved in September 2008 for which we received a \$10.0 million payment and, in the year ended December 31, 2009, we recognized approximately \$2.0 million of revenue related to the same milestone. Additionally, in 2009, we recognized approximately \$0.3 million in revenue related to the initial sale of development material to Almirall.

*Services.* Services revenue decreased primarily due to the receipt of approximately \$1.2 million in the form of a one-time payment in March 2008 as settlement of a contract dispute as well as the winding down of service contracts which contributed to a decrease of services revenue of approximately \$0.9 million.

#### Operating Expenses

|                            | Years Ended<br>December 31, |          | Chan     | ige    |
|----------------------------|-----------------------------|----------|----------|--------|
|                            | 2009                        | 2008     | \$       | %      |
|                            | (dollars in thousands)      |          |          |        |
| Operating expenses:        |                             |          |          |        |
| Research and development   | \$ 84,892                   | \$59,809 | \$25,083 | 41.9%  |
| General and administrative | 23,980                      | 18,328   | 5,652    | 30.8%  |
| Restructuring              | 1,207                       |          | 1,207    | 100.0% |
| Total operating expenses   | \$110,079                   | \$78,137 | \$31,942 | 40.9%  |

Research and Development Expense. The increase in research and development expense for the year ended December 31, 2009 compared to the year ended December 31, 2008 was primarily due to an increase of approximately \$21.8 million in expenses associated with the Phase 3 clinical trials for linaclotide, an increase of approximately \$3.1 million in spending for compensation, benefits and other employee related expenses resulting from an increase in headcount to support our linaclotide program, and increased facilities and depreciation costs of approximately \$0.3 million associated with new research and development space.

General and Administrative Expense. The increase in general and administrative expense for the year ended December 31, 2009 compared to the year ended December 31, 2008 was primarily due to increased compensation, benefits and other employee related expenses of approximately \$4.5 million related to an increase in headcount to support our overall growth, increased facilities' costs of approximately \$0.7 million associated with new office space and increased legal costs of approximately \$0.9 million associated with intellectual property and other corporate legal matters, partially offset by approximately \$0.5 million decrease in professional fees associated with marketing related activities.

Restructuring Expense. The increase in restructuring expense for the year ended December 31, 2009 compared to the year ended December 31, 2008 was a result of the strategic restructuring plan implemented by Microbia in November 2009. Microbia recorded approximately \$0.3 million of expense related primarily to a workforce reduction and approximately \$0.9 million related to impairments of long-lived assets.

|   | Years Ended<br>December 31, |          | Chan     | ange    |  |
|---|-----------------------------|----------|----------|---------|--|
|   | 2009                        | 2008     | \$       | %       |  |
|   | (dollars in thousands)      |          |          |         |  |
| Other income (expense):                       |                             |          |          |         |  |
| Interest expense                              | \$(474)                     | \$ (334) | \$ (140) | (41.9)% |  |
| Interest and investment income                | 243                         | 2,124    | (1,881)  | (88.6)% |  |
| Remeasurement of forward purchase contracts . | 600                         | (900)    | 1,500    | 166.7%  |  |
| Total other income (expense), net             | \$ 369                      | \$ 890   | \$ (521) | (58.5)% |  |

*Interest Expense.* The increase in interest expense for the year ended December 31, 2009 compared to the year ended December 31, 2008 was a result of additional borrowings in 2009 under our debt facility as well as two new capital leases that we entered into in 2008.

*Interest and Investment Income.* The decrease in interest and investment income for the year ended December 31, 2009 compared to the year ended December 31, 2008 was due to lower prevailing interest rates during the period.

Remeasurement of Forward Purchase Contracts. The increase in the fair value of the forward purchase contracts for the year ended December 31, 2009 compared to the year ended December 31, 2008 resulted from changes in the fair value of the Forest and Almirall forward purchase contracts at the time of remeasurement. The valuation of the Forest forward purchase contract for the year ended December 31, 2009 increased \$0.1 million as compared to a decrease of \$0.9 million for the year ended December 31, 2008. The large decrease in the valuation of the Forest forward purchase contract was primarily a result of an increase in the fair value of our convertible preferred stock at the time of remeasurement. This increase was driven by higher estimated enterprise values and a lower risk-adjusted interest rate assumption used in our valuation. As a result, at December 31, 2008, the valuation of the Forest forward purchase contract decreased. The Almirall forward purchase contract valuation increased \$0.5 million in the year ended December 31, 2009 without a corresponding change in the year ended December 31, 2008 as we entered into the license agreement with Almirall in April 2009.

Income Tax Benefit. The approximately \$0.3 million increase in income tax benefit for the year ended December 31, 2009 was related to a refundable federal research and development tax credit. We received approximately \$0.2 million of this refund in October 2009 and we expect to receive approximately \$0.1 million in October 2010, after we file our 2009 tax return.

Net Loss Attributable to Noncontrolling Interest. The approximately \$1.0 million increase in net loss attributable to noncontrolling interest was due to the larger net loss for Microbia as a result of lower revenue and increased expenses, including its restructuring expense, during the year ended December 31, 2009 compared to the year ended December 31, 2008.

## Year Ended December 31, 2008 Compared to Year Ended December 31, 2007 Revenue

|                            | Years Ended<br>December 31, |          | Chan     | ge      |  |
|----------------------------|-----------------------------|----------|----------|---------|--|
|                            | 2008                        | 2007     | \$       | %       |  |
|                            | (dollars in thousands)      |          |          |         |  |
| Revenue:                   |                             |          |          |         |  |
| Collaborative arrangements | \$18,383                    | \$ 4,608 | \$13,775 | 298.9%  |  |
| Services                   | 3,833                       | 5,856    | (2,023)  | (34.6)% |  |
| Total revenue              | \$22,216                    | \$10,464 | \$11,752 | 112.3%  |  |

Collaborative Arrangements. The increase in revenue from collaborative arrangements for the year ended December 31, 2008 compared to the year ended December 31, 2007 was due to the amortization of approximately \$11.2 million of deferred revenue from the Forest up-front license payment and the amortization of the deferred revenue related to the initial \$9.0 million valuation of the Forest forward purchase contract over the estimated development period. In the year ended December 31, 2007 we recognized a total of approximately \$4.6 million of deferred revenue related to the Forest up-front license payment and the amortization of the initial valuation of the Forest forward purchase contract as compared to a total of approximately \$15.8 million in the year ended December 31, 2008. Additionally, in September 2008 we achieved a clinical milestone under the Forest collaboration agreement and recognized revenue of approximately \$2.6 million related to the milestone.

Services. The decrease in services revenue for the year ended December 31, 2008 compared to the year ended December 31, 2007 was primarily due to the winding down of service contracts amounting to approximately \$3.2 million which was partially offset by the receipt of approximately \$1.2 million in the form of a one-time payment in March 2008 as settlement of a contract dispute.

#### Operating Expenses

|                            | Years Ended<br>December 31, |          | Chan     | ıge           |  |
|----------------------------|-----------------------------|----------|----------|---------------|--|
|                            | 2008                        | 2007     | \$       | %             |  |
|                            | (dollars in thousands)      |          |          |               |  |
| Operating expenses:        |                             |          |          |               |  |
| Research and development   | \$59,809                    | \$57,246 | \$ 2,563 | 4.5%          |  |
| General and administrative | 18,328                      | 10,833   | 7,495    | <u>69.2</u> % |  |
| Total operating expenses   | \$78,137                    | \$68,079 | \$10,058 | 14.8%         |  |

Research and Development Expense. The increase in research and development expense for the year ended December 31, 2008 compared to the year ended December 31, 2007 was primarily a result of increased compensation, benefits and other employee related expenses of approximately \$5.8 million related to the hiring of additional employees to support the linaclotide program; increased facility costs of approximately \$9.0 million due to the expansion of our research facility in 2008; and approximately \$12.6 million credit to research and development expense due to a full year of reimbursement of costs under the Forest collaboration agreement for the year ended December 31, 2008 as compared to approximately three months for the year ended December 31, 2007.

General and Administrative Expense. The increase in general and administrative expense for the year ended December 31, 2008 compared to the year ended December 31, 2007 was primarily a result of increased compensation, benefits and other employee related expenses of approximately \$4.9 million

resulting from an increase in headcount to support our overall growth; increased consulting costs of approximately \$1.3 million related to our pre-commercialization activities; and increased facility costs of approximately \$1.3 million associated with the additional office space leased in 2008.

Other Income (Expense), Net

|   | Years Ended<br>December 31, |          | Char      | ange     |  |
|---|-----------------------------|----------|-----------|----------|--|
|   | 2008                        | 2007     | \$        | %        |  |
|   | (dollars in thousands)      |          |           |          |  |
| Other income (expense):                     |                             |          |           |          |  |
| Interest expense                            | \$ (334)                    | \$ (263) | \$ (71)   | (27.0)%  |  |
| Interest and investment income              | 2,124                       | 4,118    | (1,994)   | (48.4)%  |  |
| Remeasurement of forward purchase contracts | (900)                       | 600      | (1,500)   | (250.0)% |  |
| Total other income (expense), net           | \$ 890                      | \$4,455  | \$(3,565) | (80.0)%  |  |

*Interest Expense*. The increase in interest expense for the year ended December 31, 2008 compared to the year ended December 31, 2007 was a result of additional borrowings under our debt facility in 2008 as well as entering into two new capital leases.

Interest and Investment Income. The decrease in interest and investment income for the year ended December 31, 2008 compared to the year ended December 31, 2007 was due to lower prevailing interest rates during 2008 partially offset by higher average cash and investment balances resulting from the cash received under the Forest collaboration agreement.

Remeasurement of Forward Purchase Contracts. The decrease in the valuation of the Forest forward purchase contract for the year ended December 31, 2008 compared to December 31, 2007 resulted from change in the fair value of the Forest forward purchase contract at the time of remeasurement related to changes in the underlying valuation assumptions including, but not limited to, the clinical status of linaclotide, our enterprise values, timing and likelihood of the different liquidity events and the appropriate risk-adjusted discount rate.

Net Loss Attributable to Noncontrolling Interest. The increase of approximately \$0.7 million in net loss attributable to noncontrolling interest was a result of a larger net loss for Microbia as a result of lower revenue and increased expenses for the year ended December 31, 2008 compared to the year ended December 31, 2007.

#### **Liquidity and Capital Resources**

The following table sets forth the major sources and uses of cash for each of the periods set forth below:

|   | Years Ended December 31, |               |                  |  |
|---|--------------------------|---------------|------------------|--|
|   | 2009                     | 2008          | 2007             |  |
|   |                          | (in thousands |                  |  |
| Net cash provided by (used in):           |                          |               |                  |  |
| Operating activities                      | \$(3,998)                | \$(28,195)    | \$ (6,759)       |  |
| Investing activities                      | 17,758                   | (15,073)      | (27,609)         |  |
| Financing activities                      | 41,663                   | 48,563        | 50,718           |  |
| Net increase in cash and cash equivalents | <u>\$55,423</u>          | \$ 5,295      | <u>\$ 16,350</u> |  |

We have incurred losses since our inception on January 5, 1998 and, as of December 31, 2009, we had a cumulative deficit of approximately \$314.6 million. We have financed our operations to date primarily through the sale of preferred stock and common stock, payments received under collaborative arrangements, including reimbursement of certain expenses, debt financings and interest earned on investments. Through December 31, 2009, we have received aggregate gross proceeds of approximately \$337.4 million from financings, of which approximately \$321.1 million was from the issuance of preferred stock, approximately \$1.2 million was from the issuance of common stock and approximately \$15.1 million was from debt financings. Through December 31, 2009, we have received aggregate gross proceeds of approximately \$138.0 million from up-front licensing and milestone payments. At December 31, 2009, we had approximately \$123.1 million of cash and cash equivalents. Our cash and cash equivalents include amounts held in money market funds, stated at cost plus accrued interest, which approximates fair market value. We invest cash in excess of immediate requirements in accordance with our investment policy which limits the amounts we may invest in any one type of investment and requires all investments held by us to be A+ rated so as to primarily achieve liquidity and capital preservation.

#### **Cash Flows From Operating Activities**

The decrease of approximately \$24.2 million in net cash used in operations for the year ended December 31, 2009 compared to the year ended December 31, 2008 was primarily associated with an increase of approximately \$37.5 million in the net changes in working capital relating to operations combined with an increase of approximately \$4.9 million in the change in non-cash items such as depreciation, share-based compensation expense, remeasurement of the forward purchase contracts, impairment of long-lived assets and accretion of the discount/premium on investment securities, partially offset by an increase in the net loss of approximately \$18.3 million. The net change in working capital items relating to operations between the year ended December 31, 2009 and the year ended December 31, 2008 was primarily due to the receipt in the year ended December 31, 2009 of a \$38.0 million up-front payment from Almirall, a \$20.0 million milestone payment from Forest and a \$30.0 million up-front payment from Astellas, as well as approximately \$1.3 million in cash reimbursements for tenant improvements which were recorded as deferred rent compared to the receipt in the year ended December 31, 2008 of a \$20.0 million up-front license fee from Forest, a \$10.0 million milestone payment from Forest, as well as approximately \$6.6 million in cash reimbursements for tenant improvements.

Net cash used in operations for the year ended December 31, 2008 compared to the year ended December 31, 2007 increased by approximately \$21.4 million. This increase was primarily the result of an approximately \$1.9 million increase in the net loss, an approximately \$5.0 million increase in non-cash items such as depreciation, share-based compensation expense, remeasurement of the forward purchase contract and accretion of the discount/premium on investment securities and an approximately \$24.6 million decrease in net changes in working capital items relating to operations. The net changes in working capital items were primarily driven by cash receipts and the recognition of deferred revenue under the Forest collaboration agreement as well as cash reimbursements for tenant improvements which were recorded as deferred rent.

#### **Cash Flows From Investing Activities**

The increase of approximately \$32.8 million in net cash provided by investing activities for the year ended December 31, 2009 compared to the year ended December 31, 2008 was primarily the result of approximately \$18.9 million less cash used for the purchase of property and equipment and approximately \$55.9 million less cash used for the purchase of investments, partially offset by an approximately \$42.0 million decrease in the cash received from the sales and maturities of investments.

Net cash used in investing activities decreased by approximately \$12.5 million for the year ended December 31, 2008 compared to the year ended December 31, 2007. This decrease was primarily a result of an approximately \$27.6 million increase in cash received from the sales and maturities of investments and an approximately \$5.2 million decrease in the cash used for the purchase of investments; offset by an approximately \$20.3 million increase in purchases of property and equipment primarily related to the leasehold improvements for our new facility and the purchase of laboratory equipment for the new facility.

#### **Cash Flows From Financing Activities**

The decrease of approximately \$6.9 million in net cash provided by financing activities for the year ended December 31, 2009 compared to the year ended December 31, 2008 was primarily due to lower proceeds from the sale of our convertible preferred stock, partially offset by higher proceeds from borrowings on our debt facility, net of payments made. During the year ended December 31, 2008 we received approximately \$49.6 million of proceeds from the sale of 4,141,586 shares of our Series H convertible preferred stock while in the year ended December 31, 2009 we received a total of approximately \$40.0 million of proceeds from the sale of 2,083,333 shares of our Series G convertible preferred stock to Forest and the sale of 681,819 shares of our Series I convertible preferred stock to Almirall.

Net cash provided by financing activities decreased by approximately \$2.2 million for the year ended December 31, 2008 compared to the year ended December 31, 2007. This decrease was primarily the result of an approximately \$1.2 million decrease in borrowings in 2008 and an approximately \$0.8 million increase in payments on borrowings. Additionally, there was a decrease of approximately \$0.4 million in the cash received from the issuance of Series H convertible preferred stock in 2008 compared to the issuance of Series F convertible preferred stock in 2007.

#### Funding Requirements

To date, we have not commercialized any products and have not achieved profitability. We anticipate that we will continue to incur substantial net losses for the next several years as we further develop and prepare for the potential commercial launch of linaclotide, continue to invest in our pipeline, develop the organization required to sell our product candidates and operate as a publicly traded company.

We have generated revenue from services, up-front license fees and milestones, but have not generated any product revenue since our inception and do not expect to generate any product revenue from our collaborative arrangements or the sale of products unless we receive regulatory approval for commercial sale of linaclotide. We believe the net proceeds from our initial public offering that closed on February 8, 2010, along with the proceeds from the exercise of the underwriter's over-allotment that closed on February 12, 2010, together with our existing cash and cash equivalents balances, interest income we earn on these balances, and amounts we expect to receive from our collaborators under existing contractual obligations will be sufficient to meet our anticipated cash requirements to complete development and commercialize linaclotide with our partner Forest for the U.S. market, and to fund our currently contemplated research and development efforts for at least the next five years, based on our current business plan. However, it is difficult to predict the actual rate of product sales and related collaborative arrangement revenue until the product is approved by the FDA and the specific language allowed by the FDA on the label is known. If our available cash and cash equivalents balances, net proceeds from our initial public offering, and amounts we expect to receive from our collaborators are insufficient to satisfy our liquidity requirements or if sales are less than anticipated, we may seek to sell additional equity or debt securities or secure new collaborative agreements. The sale of additional equity may result in dilution to our stockholders. If we raise additional funds through the issuance of debt securities, these securities would have rights senior to those of our common stock and could

contain covenants that would restrict our operations. Any required additional capital may not be available on reasonable terms, if at all. If we are unable to obtain additional financing, we may be required to reduce the scope of, delay, or eliminate some or all of, our planned research, development and commercialization activities, or attempt to obtain funds through arrangements that may require us to relinquish rights to certain of our technologies or drug candidates, which could materially harm our business.

Our forecast of the period of time through which our financial resources will be adequate to support our operations, the costs to obtain regulatory approval, and the costs to commercialize our product candidates are forward-looking statements and involve risks and uncertainties, and actual results could vary materially and negatively as a result of a number of factors, including the factors discussed in the "Risk Factors" section of this Annual Report on Form 10-K. We have based these estimates on assumptions that may prove to be wrong, and we could utilize our available capital resources sooner than we currently expect.

Due to the numerous risks and uncertainties associated with the development of our products, we are unable to estimate precisely the amounts of capital outlays and operating expenditures necessary to complete the development of, and to obtain regulatory approval for, linaclotide and our other product candidates for all of the indications for which we believe each product candidate is suited. Our funding requirements will depend on many factors, including, but not limited to, the following:

- the time and costs involved in obtaining regulatory approvals for our product candidates;
- the rate of progress and cost of our commercialization activities;
- the success of our research and development efforts;
- the expenses we incur in marketing and selling our product candidates;
- the revenue generated by sales of our product candidates;
- the emergence of competing or complementary technological developments;
- the costs of filing, prosecuting, defending and enforcing any patent claims and other intellectual property rights;
- the terms and timing of any additional collaborative, licensing or other arrangements that we may establish; and
- the acquisition of businesses, products and technologies (although we currently have no commitments or agreements relating to any of these types of transactions).

#### **Contractual Commitments and Obligations**

Under our collaborative agreement with Forest, we share equally with Forest all development and commercialization costs related to linaclotide in the U.S. The actual amounts that we pay Forest or that Forest pays to us will depend on numerous factors outside of our control, including the success of our clinical development efforts with respect to linaclotide, the content and timing of decisions made by the FDA, the reimbursement and competitive landscape around linaclotide and our other product candidates, and other factors described under the heading "Risk Factors."

Our most significant clinical trial expenditures are to CROs. The contracts with CROs generally are cancellable, with notice, at our option and do not have any cancellation penalties. These items are not included in the table below.

The following table summarizes our contractual obligations at December 31, 2009 (excluding interest).

|                               | Payments Due by Period |                     |           |           |                      |
|-------------------------------|------------------------|---------------------|-----------|-----------|----------------------|
|                               | Total                  | Less Than<br>1 Year | 1-3 Years | 3-5 Years | More Than<br>5 Years |
|                               | (in thousands)         |                     |           |           |                      |
| Long-term debt                | \$ 3,074               | \$1,310             | \$ 1,610  | \$ 154    | \$ —                 |
| Capital lease obligations     | 255                    | 143                 | 84        | 28        | _                    |
| Operating lease obligations   |                        | 7,700               | 18,586    | 19,910    | 10,169               |
| Total contractual obligations | \$59,694               | \$9,153             | \$20,280  | \$20,092  | \$10,169             |

Our commitment for long-term debt relates to our master loan agreement for the financing of purchases of laboratory, computer and other equipment. As of December 31, 2009, there were no funds available under the master loan agreement to finance future equipment purchases. At December 31, 2009, approximately \$2.6 million of borrowings have been made under the master loan and security agreement. Borrowings under the master loan and security agreement are being repaid with interest over periods of either 36 or 48 months. The master loan and security agreement requires interest and principal payable in monthly installments on the outstanding borrowings ranging from approximately \$1,000 to \$27,000 through November 2013. Outstanding borrowings under the master loan and security agreement bear interest at a fixed rate between 9.99% and 12.50% for the duration of the term, and are collateralized by the laboratory, computer and other equipment. At December 31, 2009, approximately \$3.1 million was outstanding under the master loan and security agreement.

Our commitment for capital lease obligations relates to leased computer and office equipment.

Our commitments for operating leases relate to our lease of office and laboratory space in Cambridge, Massachusetts and Microbia's office and laboratory space in Lexington, Massachusetts. In January 2010, Microbia exercised an early termination option for their lease and as a result, the lease will terminate on September 30, 2010. Under the amended lease facility, the landlord will draw against a secured letter of credit for the January and February 2010 lease payments and has agreed to defer the monthly base rent from March 1, 2010 through September 30, 2010. The amounts shown in the table for operating lease obligations reflect the exercise of the early termination option and therefore do not include any Microbia lease payments subsequent to September 30, 2010.

In connection with Microbia's exercise of its early termination option, Microbia may be required to issue a warrant to the landlord, which is exercisable into shares of Microbia common stock. The number of shares issuable will be determined at the time of issuance in accordance with the terms of the warrant and the price per share will be the fair value of Microbia's common stock at that time.

In connection with Microbia's November 2009 restructuring, Microbia may incur approximately \$0.5 million of additional restructuring costs if Microbia implements an additional reduction in force prior to the earlier of November 5, 2010 or the date that Microbia closes on a new round of financing.

On February 9, 2010, we entered into a Second Lease Amendment for our 301 Binney Street facility. Under the amended lease, effective as of February 9, 2010, we lease an additional 50,000-60,000 square feet of the 301 Binney Street facility, comprised of (a) an initial phase of at least 30,000 square feet (the "Initial Phase"), with rent for such space in the Initial Phase commencing no later than July 1, 2010, and (b) a second phase of up to an additional 30,000 square feet (for total additional space of no less than 50,000 square feet and no more than 60,000 square feet) (the "Second Phase"), with rent for such space in the Second Phase commencing no later than July 1, 2011. The Amendment does not change the January 31, 2016 expiration date of the original lease. The lease payments pursuant to this Amendment are not included in the contractual obligations table above.

#### **Related Party Transactions**

We have and currently obtain legal services from a law firm that is an investor of ours. We paid approximately \$0.1 million, \$0.1 million and \$0.1 million in legal fees to this investor during the years ended December 31, 2009, 2008 and 2007, respectively.

In September 2006, Tate & Lyle Investments, Ltd. ("T&L") became a related party when we sold to them 1,823,529 shares of common stock of Microbia at the aggregate purchase price of approximately \$2,000, and sold 7,000,000 shares of convertible preferred stock of Microbia at the aggregate purchase price of \$7.0 million. T&L accounted for approximately 5%, 10% and 29% of our revenue for the years ended December 31, 2009, 2008 and 2007, respectively.

In September 2009, Forest became a related party when we sold to them 2,083,333 shares of our convertible preferred stock at a price of \$12.00 per share for cash proceeds of \$25.0 million. Forest accounted for approximately 75%, 83% and 44% of our revenue for the years ended December 31, 2009, 2008 and 2007, respectively.

In November 2009, Almirall became a related party when we sold to them 681,819 shares of our convertible preferred stock at a price of \$22.00 per share for cash proceeds of \$15.0 million. Almirall accounted for approximately 20% of our revenue for the year ended December 31, 2009.

#### **Off-Balance Sheet Arrangements**

We do not have any relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities, that would have been established for the purpose of facilitating off-balance sheet arrangements (as that term is defined in Item 303(a)(4)(ii) of Regulation S-K) or other contractually narrow or limited purposes. As such, we are not exposed to any financing, liquidity, market or credit risk that could arise if we had engaged in those types of relationships. We enter into guarantees in the ordinary course of business related to the guarantee of our own performance and the performance of our subsidiaries.

#### **New Accounting Pronouncements**

From time to time, new accounting pronouncements are issued by the Financial Accounting Standards Board, or FASB, or other standard setting bodies that are adopted by us as of the specified effective date. Unless otherwise discussed, we believe that the impact of recently issued standards that are not yet effective will not have a material impact on our consolidated financial position or results of operations upon adoption.

#### Recently Issued Accounting Standards

In August 2009, the FASB issued Accounting Standards Update No. 2009-05, *Measuring Liabilities at Fair Value*, or ASU 2009-05. ASU 2009-05 amends Accounting Standards Codification Topic 820, *Fair Value Measurements*. Specifically, ASU 2009-05 provides clarification that in circumstances in which a quoted price in an active market for the identical liability is not available, a reporting entity is required to measure fair value using one or more of the following methods: (1) a valuation technique that uses (a) the quoted price of the identical liability when traded as an asset or (b) quoted prices for similar liabilities or similar liabilities when traded as assets and/or (2) a valuation technique that is consistent with the principles of Topic 820 of the Accounting Standards Codification, or Codification, (e.g. an income approach or market approach). ASU 2009-05 also clarifies that when estimating the fair value of a liability, a reporting entity is not required to adjust to include inputs relating to the existence of transfer restrictions on that liability. The adoption of this standard did not have an impact on our financial position or results of operations.

In October 2009, the FASB issued ASU No. 2009-13, Multiple-Deliverable Revenue Arrangements, or ASU 2009-13. ASU 2009-13, amends existing revenue recognition accounting pronouncements that are currently within the scope of FASB Accounting Standards Codification, or ASC, Subtopic 605-25 (previously included within EITF 00-21, Revenue Arrangements with Multiple Deliverables, or EITF 00-21). The consensus to ASU 2009-13 provides accounting principles and application guidance on whether multiple deliverables exist, how the arrangement should be separated, and the consideration allocated. This guidance eliminates the requirement to establish the fair value of undelivered products and services and instead provides for separate revenue recognition based upon management's estimate of the selling price for an undelivered item when there is no other means to determine the fair value of that undelivered item. EITF 00-21 previously required that the fair value of the undelivered item be the price of the item either sold in a separate transaction between unrelated third parties or the price charged for each item when the item is sold separately by the vendor. This was difficult to determine when the product was not individually sold because of its unique features. Under EITF 00-21, if the fair value of all of the elements in the arrangement was not determinable, then revenue was deferred until all of the items were delivered or fair value was determined. This new approach is effective prospectively for revenue arrangements entered into or materially modified in fiscal years beginning on or after June 15, 2010 and allows for retrospective application. We are currently evaluating the potential impact of this standard on our financial position and results of operations.

#### Recently Adopted Accounting Standards

Effective January 1, 2009, we adopted new accounting guidance related to accounting for uncertainty in income taxes. This accounting standard clarifies the recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. This accounting standard also provides guidance on recognition, classification, interest and penalties, accounting in interim periods, disclosure and transition. We have not identified any material uncertain tax positions for which reserves would be required and the adoption of this accounting standard did not have an effect on our consolidated financial statements.

Effective January 1, 2009, we adopted a newly issued accounting standard for business combinations. This standard requires an acquiring company to measure all assets acquired and liabilities assumed, including contingent considerations and all contractual contingencies, at fair value as of the acquisition date. In addition, an acquiring company is required to capitalize in-process research and development and either amortize it over the life of the product, or write it off if the project is abandoned or impaired. This guidance is applicable to acquisitions completed after January 1, 2009 and as we did not have any business combinations in the year ended December 31, 2009, the adoption did not impact our financial position or results of operations. The standard also amended accounting for uncertainty in income taxes. Previously, accounting standards generally required post-acquisition adjustments related to business combination deferred tax asset valuation allowances and liabilities for uncertain tax positions to be recorded as an increase or decrease to goodwill. This new standard does not permit this accounting and, generally, requires any such changes to be recorded in current period income tax expense. Thus, all changes to valuation allowances and liabilities for uncertain tax positions established in acquisition accounting, whether the business combination was accounted for under this guidance, will be recognized in current period income tax expense.

Effective January 1, 2009, we adopted new guidance for the accounting, reporting and disclosure of noncontrolling interests which requires, among other things, that noncontrolling interests be recorded as equity in the consolidated financial statements. The adoption of this new guidance resulted in the reclassification of noncontrolling interests (previously referred to as minority interests) to a separate component of stockholders' equity (deficit) on the consolidated balance sheet. Additionally, net loss attributable to noncontrolling interests is now shown separately from parent net loss in the consolidated

statement of operations. Prior periods have been restated to reflect the presentation and disclosure requirements of the new guidance. Refer to Note 2, *Summary of Significant Accounting Policies* of the consolidated financial statements included in this Annual Report on Form 10-K for additional information on the adoption of the new accounting standard for noncontrolling interests.

In April, 2009, the FASB issued a new accounting standard providing guidance for the accounting of assets acquired and liabilities assumed in a business combination that arise from contingencies. This guidance amends and clarifies previous accounting standards to address application issues regarding the initial recognition and measurement, subsequent measurement and accounting, and disclosure of assets and liabilities arising from contingencies in a business combination. This guidance is applicable to acquisitions completed after January 1, 2009. As we did not have any business combinations in the year ended December 31, 2009, the adoption did not impact our financial position or results of operations.

In May 2009, the FASB established general standards of accounting for and disclosures of events that occur after the balance sheet date but before financial statements are issued or are available to be issued. Our adoption of these standards had no material impact on our financial position, results of operations and cash flows.

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

#### **Interest Rate Risk**

We are exposed to market risk related to changes in interest rates. We invest our cash in a variety of financial instruments, principally deposits, securities issued by the U.S. government and its agencies and money market instruments. The goals of our investment policy are preservation of capital, fulfillment of liquidity needs and fiduciary control of cash and investments. We also seek to maximize income from our investments without assuming significant risk.

Our primary exposure to market risk is interest income sensitivity, which is affected by changes in the general level of interest rates, particularly because our investments are in short-term marketable securities. Due to the short-term duration of our investment portfolio and the low risk profile of our investments, an immediate 1% 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 the effect of a sudden change in market interest rates on our investment portfolio.

Recently, there has been concern in the credit markets regarding the value of a variety of mortgage-backed and auction rate securities and the resulting effect on various securities markets. We do not currently have any auction rate securities. We do not believe our cash, cash equivalents and available-for-sale investments have significant risk of default or illiquidity. While we believe our cash, cash equivalents and available-for-sale investments 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. Given the current instability of financial institutions, we cannot be assured that we will not experience losses on these deposits.

Our long-term debt and capital lease obligations bear interest at a fixed rate and therefore have minimal exposure to changes in interest rates.

#### Foreign Currency Risk

We have no operations outside the U.S. and do not have any foreign currency or other derivative financial instruments.

#### **Effects of Inflation**

We do not believe that inflation and changing prices over the years ended December 31, 2009, 2008 and 2007 had a significant impact on our results of operations.

#### Item 8. Consolidated Financial Statements and Supplementary Data

Our consolidated financial statements, together with the independent registered public accounting firm report thereon, appear at pages F-1 through F-49, respectively, of this Annual Report on Form 10-K.

### 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**

As required by Rule 13a-15(b) of the Exchange Act, our management, including our principal executive officer and our principal financial officer, conducted an evaluation as of the end of the period covered by this Annual Report on Form 10-K of the effectiveness of the design and operation of our disclosure controls and procedures. Based on that evaluation, our principal executive officer and principal financial officer concluded that our disclosure controls and procedures are effective at the reasonable assurance level in ensuring that 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 we file under the Exchange Act is accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate to allow timely decisions regarding required disclosure.

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

This Annual Report on Form 10-K does not include a report of management's assessment regarding internal control over financial reporting or an attestation report of our registered public accounting firm due to a transition period established by rules of the SEC for newly public companies.

#### **Changes in Internal Control**

As required by Rule 13a-15(d) of the Exchange Act, our management, including our principal executive officer and our principal financial officer, conducted an evaluation of the internal control over financial reporting to determine whether any changes occurred during the period covered by this Annual Report on Form 10-K that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting. Based on that evaluation, our principal executive officer and principal financial officer concluded no such changes during the period covered by this Annual Report on Form 10-K materially affected, or were reasonably likely to materially affect, our internal control over financial reporting.

#### Item 9B. Other Information

None.

#### **PART III**

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

#### **Executive Officers and Directors**

The following table sets forth the name, age and position of each of our executive officers and directors as of March 15, 2010:

| Name                                       | Age | Position   |
|--|-----|--|
| Peter M. Hecht, Ph.D                       | 46  | Chief Executive Officer, Director  |
| Michael J. Higgins                         | 47  | Senior Vice President, Chief Operating Officer and Chief Financial Officer |
| Mark G. Currie, Ph.D                       | 55  | Senior Vice President, R&D and Chief                                       |
|  |     | Scientific Officer   |
| Thomas A. McCourt                          | 52  | Senior Vice President, Marketing and Sales and                             |
|  |     | Chief Commercial Officer   |
| Joseph C. Cook, Jr. (1)(2)(4)              | 68  | Director and Chairman of the Board   |
| George H. Conrades <sup>(1)(2)</sup>       | 71  | Director   |
| David Ebersman <sup>(3)</sup>              | 40  | Director   |
| Marsha H. Fanucci <sup>(1)</sup>           | 56  | Director   |
| Terrance G. McGuire <sup>(2)</sup>         | 53  | Director   |
| Gina Bornino Miller <sup>(2)</sup>         | 49  | Director   |
| Bryan E. Roberts, Ph.D. <sup>(3)(5)</sup>  | 43  | Director   |
| David E. Shaw <sup>(3)</sup>               | 58  | Director   |
| Christopher T. Walsh, Ph.D. <sup>(3)</sup> | 66  | Director   |

- (1) Member of audit committee.
- (2) Member of governance and nominating committee.
- (3) Member of compensation committee.
- (4) Mr. Cook will step down as chairman of the board of directors (but will remain a director) in July 2010.
- (5) Dr. Roberts will become the chairman of the board of directors in July 2010.

We believe that our board of directors should be composed of individuals with sophistication and experience in many substantive areas that will help us achieve our goals of delivering differentiated medicines to patients and generating outstanding returns for our stockholders. The core criteria that we use in evaluating each nominee to our board of directors consists of the following: (a) a commitment to represent both the short- and long-term interests of our stockholders, demonstrated, in part, through ownership of our capital stock; (b) strong personal and professional ethics, integrity and values; (c) strong business acumen; (d) a genuine passion for our business and the patients who we serve; (e) demonstrated achievement in the nominee's field of expertise; (f) the absence of conflicts of interest that would impair the nominee's ability to represent the interests of our stockholders; (g) the ability to dedicate the time necessary to regularly participate in meetings of the board and committees of our board; and (h) the potential to contribute to the diversity of our board of directors, as a result of the nominee's professional background, expertise, gender, age or ethnicity. These areas are in addition to the personal qualifications described in each of our directors' biographies set forth below. We believe that all current members of our board of directors possess the professional and personal qualifications necessary to serve on our board of directors.

Peter M. Hecht has served as our chief executive officer and a director since our founding in 1998. Prior to founding Ironwood, Dr. Hecht was a research fellow at Whitehead Institute for Biomedical Research. Dr. Hecht serves on the boards of directors of Whitehead Institute and Microbia, Inc., our majority-owned subsidiary. He also serves on the Leadership Council for The David H. Koch Institute for Integrative Cancer Research at the Massachusetts Institute of Technology and the advisory board of Infante Sano. Dr. Hecht earned a B.S. in mathematics and an M.S. in biology from Stanford University, and holds a Ph.D. in molecular biology from the University of California at Berkeley. Dr. Hecht's experiences as one of our founders and our chief executive officer make him an essential member of our board of directors.

*Michael J. Higgins* has served as our chief operating officer and chief financial officer since joining Ironwood in 2003. Prior to 2003, Mr. Higgins held a variety of senior business positions at Genzyme Corporation, including vice president of corporate finance. He serves on the board of directors of Microbia, Inc., our majority-owned subsidiary. Mr. Higgins earned a B.S. from Cornell University and an M.B.A. from the Amos Tuck School of Business Administration at Dartmouth College.

Mark G. Currie serves as our senior vice president of research and development and chief scientific officer, and has led our R&D efforts since joining us in 2002. Prior to joining Ironwood, he directed cardiovascular and central nervous system disease research as vice president of discovery research at Sepracor Inc. Previously, Dr. Currie initiated, built and led discovery pharmacology and also served as director of arthritis and inflammation at Monsanto Company. Dr. Currie earned a B.S. in biology from the University of South Alabama and holds a Ph.D. in cell biology from the Bowman-Gray School of Medicine of Wake Forest University.

Thomas A. McCourt has served as our senior vice president of marketing and sales and chief commercial officer since joining Ironwood in September 2009. Prior to joining Ironwood, Mr. McCourt led the U.S. brand team for denosumab at Amgen Inc. from April 2008 to August 2009. Prior to that, he was with Novartis AG from 2001 to 2008, where he directed the launch and growth of Zelnorm for the treatment of patients with IBS-C and chronic constipation and held a number of senior commercial roles, including vice president of strategic marketing and operations. Mr. McCourt was also part of the founding team at Astra Merck Inc., leading the development of the medical affairs and science liaison group and then serving as brand manager for Prilosec. Mr. McCourt has a degree in pharmacy from the University of Wisconsin.

Joseph C. Cook, Jr. has served as our chairman of the board of directors since co-founding our company in 1998. Mr. Cook is a principal and co-founder of Mountain Group Capital, LLC, a private investment company. He serves on the board of directors for Corcept Therapeutics, Inc., a biopharmaceutical company, and is a founder and serves as chairman of the board of Clinical Products Ltd., a company marketing a medical food for people with diabetes. Mr. Cook served as chairman of the board of Amylin Pharmaceuticals, Inc. from 1998 to 2009 and was chief executive officer from 1998 to 2003. He spent 28 years at Eli Lilly and Co., retiring from Lilly in 1993 after spending his last seven years there in a variety of senior management positions. In 2009, Mr. Cook received the Pinnacle Award for Life Science Leadership from the Rady School of Management at the University of California at San Diego. Mr. Cook received a B.S. in Engineering from the University of Tennessee in 1965. Mr. Cook was one of our co-founders and has served as both a director and an executive of several companies in the life sciences industry, including an eleven-year career at Amylin Pharmaceuticals. Based on these characteristics, we believe that Mr. Cook provides a valuable perspective and useful insight to our board as we transition to being a public company and as we intend to commercialize linaclotide and advance our other product candidates.

George H. Conrades has served as director since December 2005. Mr. Conrades has been the executive chairman of Akamai Technologies, Inc. since 2005, prior to which he served as their chairman and chief executive officer from 1999 to 2005 and as a director from 1998 to 2005. Mr. Conrades has

also been a venture partner of Polaris Venture Partners, an early stage investment company, since August 1998. From August 1997 to July 1998, Mr. Conrades served as executive vice president of GTE and president of GTE Internetworking, an integrated telecommunications services firm. Mr. Conrades served as chief executive officer of BBN Corporation, a national Internet services provider and internet technology research and development company, from January 1994 until its acquisition by GTE Internetworking in July 1997. Prior to joining BBN Corporation, Mr. Conrades was a senior vice president at International Business Machines Corporation, or IBM, a developer of computer systems, software, storage systems and microelectronics, and a member of IBM's corporate management board. Mr. Conrades is currently a director of Harley-Davidson, Inc., a motorcycle manufacturer, and Oracle Corporation, an enterprise software company, and currently serves on the Board of Trustees for the Scripps Research Institute, Ohio Wesleyan University and New Profit, an early stage venture philanthropy investment organization, Mr. Conrades received a B.S. in physics and math from Ohio Wesleyan University and an M.B.A. from the University of Chicago. Mr. Conrades' experience as chief executive officer of two public companies and as division president at two additional high technology companies, coupled with his past and present directorships and trusteeships make him a critical member of our board of directors, particularly with respect to our growth strategy and business plans.

David Ebersman has served as director since July 2009. Mr. Ebersman is currently chief financial officer of Facebook, a privately-held social utility company. Prior to joining Facebook, he worked in a number of positions at Genentech, Inc., a leading public biotechnology company, until its acquisition by Hoffmann-La Roche in March 2009. At Genentech, he was appointed executive vice president in January 2006 and chief financial officer in March 2005. Previously, he served as senior vice president, finance from January 2005 through March 2005 and senior vice president, product operations from May 2001 through January 2005. He joined Genentech in February 1994 as a business development analyst and subsequently served as manager, business development from February 1995 to February 1996, director, business development from February 1996 to March 1998, senior director, product development from March 1998 to February 1999 and vice president, product development from February 1999 to May 2001. Prior to joining Genentech, Mr. Ebersman held the position of research analyst at Oppenheimer & Company, Inc. Mr. Ebersman was selected as a Fellow in the Henry Crown Fellowship Program. Mr. Ebersman received a B.A. in economics and international relations from Brown University. Mr. Ebersman brings to our board fifteen years of business, manufacturing, strategic planning and financial experience with Genentech, one of the original biotechnology companies.

Marsha H. Fanucci has served as director since October 2009. Ms. Fanucci served as senior vice president and chief financial officer of Millennium Pharmaceuticals, Inc. from July 2004 through January 2009, where she was responsible for corporate strategy, treasury, financial planning and reporting and operations. While at Millennium, she also served as vice president, finance and corporate strategy and vice president, corporate development and strategy. Previously, she was vice president of corporate development and strategy at Genzyme Corporation, a biotechnology company, from 1998 to 2000. From 1987 to 1998, Ms. Fanucci was employed at Arthur D. Little, Inc. where she most recently served as vice president and director. Ms. Fanucci presently serves on the board of directors of Momenta Pharmaceuticals, Inc. She received her B.S. in pharmacy from West Virginia University and her M.B.A. from Northeastern University. Because of her strong financial background at Millennium Pharmaceuticals and Genzyme in addition to her directorship at Momenta Pharmaceuticals, we believe that Ms. Fanucci provides valuable industry insight and essential expertise as we execute on our corporate objectives.

Terrance G. McGuire has served as director since 1998. Mr. McGuire was a co-founder and is currently a general partner of Polaris Venture Partners. Prior to starting Polaris Venture Partners in 1996, Mr. McGuire spent seven years at Burr, Egan, Deleage & Co., investing in early stage medical and information technology companies. He serves on the board of directors of several private companies and has served on the boards of Akamai Technologies, Inc., Aspect Medical Systems, Inc.,

Cubist Pharmaceuticals, Inc., deCODE genetics, Inc. and various private companies. Mr. McGuire is currently the chairman of the National Venture Capital Association, which represents ninety percent of the venture capitalists in the U.S., chairman of the board of the Thayer School of Engineering at Dartmouth College, and a member of the boards of The David H. Koch Institute for Integrative Cancer Research at the Massachusetts Institute of Technology and The Arthur Rock Center for Entrepreneurship at Harvard Business School. Mr. McGuire earned a B.S. in physics and economics from Hobart College, an M.S. in engineering from The Thayer School at Dartmouth College and an M.B.A from Harvard Business School. Mr. McGuire brings to our board extensive experience as a venture capitalist focused on the biotechnology industry, and he has several years of experience helping companies evolve from the start-up phase to successful public companies.

Gina Bornino Miller has served as director since our founding in 1998. Prior to co-founding Ironwood, Ms. Bornino Miller was the president and general manager for Quantum Corporation's Specialty Storage Products Group between 1993 and 1996. Ms. Bornino Miller's past work experience also includes vice president of corporate development and planning for Quantum Corporation, director of strategic planning at Silicon Graphics, Inc., various engineering and management positions in the high tech industry and strategy consulting across a variety of other industries. Ms. Bornino Miller serves as chairperson of the board of directors of Microbia, Inc., our majority-owned subsidiary. Ms. Bornino Miller possesses particular experience in rapidly evolving industries as well as our evolution by virtue of being one of our founders. This experience and historical perspective significantly strengthen our board's collective qualifications, skills and experience.

Bryan E. Roberts has served as director since 2001. Dr. Roberts joined Venrock, a venture capital investment firm, in 1997, where he serves as partner. From 1989 to 1992, Dr. Roberts worked in the corporate finance department of Kidder, Peabody & Co., a brokerage company. Dr. Roberts serves on the board of directors of several private companies, and he has previously served on the board of directors of athenahealth, Inc., XenoPort, Inc. and Sirna Therapeutics, Inc. He received a B.A. from Dartmouth College and a Ph.D. in chemistry and chemical biology from Harvard University. Dr. Roberts brings to our board substantial experience in the life sciences industry, having served on the board of directors of several private and public companies. Dr. Roberts' experiences will be critical as we transition to being a public company and as we intend to commercialize linaclotide and advance our other product candidates.

David E. Shaw has served as director since 2004. Mr. Shaw is managing director of Black Point Group LLC, a private equity partnership, and a partner with Venrock, a venture capital firm. Mr. Shaw was formerly an advisor to New Mountain Capital, LLC from 2004 to 2007, during which time he served as director of National Medical Health Card Systems, Inc., a pharmacy benefit manager. He served as executive chairman of Ikaria Holdings, Inc., a pharmaceutical company, from 2008-2009 and was their chief executive officer from 2007-2008. Mr. Shaw also serves as chairman of the board of Fetch Enterprises, Inc. He is the founder and former chief executive of IDEXX Laboratories Inc., a medical technology company, and he has been active in other life science firms. Mr. Shaw holds a B.A. from the University of New Hampshire and an M.B.A. from the University of Maine. Mr. Shaw's previous experience as chief executive officer and director of a pharmaceutical company in addition to his current position of chief executive officer and director of a private retail company make him a critical member of our board of directors, particularly with respect to our growth strategy and business plans.

Christopher T. Walsh has served as director since July 2003. Dr. Walsh has been the Hamilton Kuhn Professor of Biological Chemistry and Molecular Pharmacology at Harvard Medical School since 1991 and formerly was president of the Dana-Farber Cancer Institute and chairman of the Department of Biological Chemistry and Molecular Pharmacology at Harvard Medical School. He has performed extensive research in enzyme stereochemistry, reaction mechanisms and the mechanisms of action of anti-infective and immunosuppressive agents. Dr. Walsh serves on the Scientific Advisory Board for

Eisai Inc., Epizyme Corporation, LS9, Inc. and the Bioventures Group of Health Care Ventures LLC. Dr. Walsh is also a board member of Achaogen Inc. and Proteostasis Therapeutics, Inc. Dr. Walsh received an A.B. in biology from Harvard University and a Ph.D. in life sciences from The Rockefeller University, New York. Based on his expertise in biological chemistry and molecular pharmacology, Dr. Walsh will be instrumental as we discover, develop and intend to commercialize innovative medicines targeting important therapeutic needs.

There are no family relationships among any of our directors or executive officers.

#### **Code of Ethics**

We have adopted a code of business conduct and ethics applicable to our directors, executive officers and all other employees. A copy of that code is available on our corporate website at http://www.ironwoodpharma.com. Any amendments to the code of ethics and business conduct, and any waivers thereto involving our executive officers, also will be available on our corporate website. A printed copy of these documents will be made available upon request. The content on our website is not incorporated by reference into this Annual Report on Form 10-K.

#### **Board Composition**

Our board of directors currently consists of ten members, nine of whom are non-employee members. Each director holds office until his or her successor is duly elected and qualified or until his or her death, resignation or removal.

In accordance with the terms of our certificate of incorporation, our board of directors is divided into three classes, each of whose members serve for staggered three year terms. The members of the classes are divided as follows:

- the class I directors are Drs. Hecht and Roberts, Ms. Bornino Miller and Mr. Shaw, and their term expires at the annual meeting of stockholders to be held in 2011;
- the class II directors are Messrs. Conrades, Cook and Ebersman, and their term expires at the annual meeting of stockholders to be held in 2012; and
- the class III directors are Ms. Fanucci, Mr. McGuire and Dr. Walsh, and their term expires at the annual meeting of stockholders to be held in 2013.

Our certificate of incorporation states that our board shall consist of between one and fifteen members, and the precise number of directors shall be fixed by a resolution of our board. Any vacancy in the board, including a vacancy that results from an increase in the number of directors, will be filled by a vote of the majority of the directors then in office. Any additional directorships resulting from an increase in the number of directors will be apportioned by the board among the three classes. This classification of the board of directors may have the effect of delaying or preventing changes in our control or management.

Our certificate of incorporation provides that our directors may be removed only for cause by a majority of the stockholders entitled to vote on such removal. Upon the expiration of the term of a class of directors, directors in that class will be eligible to be elected for a new three-year term at the annual meeting of stockholders in the year in which their term expires.

As set forth in our corporate governance guidelines, our board of directors anticipates that its chairperson shall rotate every five years. The next rotation is scheduled to take place in July 2010, at which time Mr. Cook will step down as the chairman of the board (but will remain a director) and Dr. Roberts will assume the chairmanship.

# **Board Committees**

Our board of directors has established an audit committee, a governance and nominating committee and a compensation and HR committee. Each committee operates under a charter that has been approved by our board. The chair of each of our committees will rotate every three to five years.

Audit Committee. The members of our audit committee are Messrs. Cook and Conrades and Ms. Fanucci. Mr. Cook presently chairs the audit committee. In July 2010, Mr. Cook will step down as chair of the audit committee (but will remain a member), at which time Ms. Fanucci will assume the chair. Our audit committee assists our board of directors in its oversight of the integrity of our financial statements and our independent registered public accounting firm's qualifications, independence and performance.

Our audit committee's responsibilities include:

- reviewing and discussing with management and our independent registered public accounting firm our annual and quarterly financial statements, earnings releases and related disclosures;
- reviewing and discussing with management and our independent registered public accounting firm our internal controls and internal auditing procedures, including any material weaknesses in either:
- discussing our accounting policies and all material correcting adjustments with our management and our independent registered public accounting firm;
- monitoring our control over financial reporting and disclosure controls and procedures;
- appointing, overseeing, setting the compensation for and, when necessary, terminating our independent registered public accounting firm;
- approving all audited services and all permitted non-audit, tax and other services to be performed by our independent registered public accounting firm;
- discussing with the independent registered public accounting firm its independence and ensuring that it receives the written disclosures regarding these communications required by the Public Company Accounting Oversight Board;
- reviewing and approving all transactions or series of similar transactions to which we were or are a party in which the amount involved exceeded or exceeds \$120,000 and in which any of our directors, executive officers, holders of more than 5% of any class of our voting securities, or any member of the immediate family of any of the foregoing persons, had or will have a direct or indirect material interest, other than compensation arrangements with directors and executive officers:
- recommending whether the audited financial statements should be included in our annual report and preparing the audit committee report required by SEC rules;
- reviewing all material communications between our management and our independent registered public accounting firm;
- approving, reviewing and updating our code of business conduct and ethics; and
- establishing procedures for the receipt, retention, investigation and treatment of accounting related complaints and concerns.

Ms. Fanucci is an audit committee financial expert, as defined in Item 407(d)(5) of Regulation S-K.

Governance and Nominating Committee. The members of our governance and nominating committee are Messrs. Cook, Conrades and McGuire and Ms. Bornino Miller. Mr. Conrades chairs the

governance and nominating committee. In July 2010, Mr. Cook will step down as member of the governance and nominating committee.

Our governance and nominating committee's responsibilities include:

- identifying individuals qualified to become members of our board of directors;
- recommending to our board of directors the persons to be nominated for election as directors;
- assisting our board of directors in recruiting such nominees;
- recommending to our board of directors qualified individuals to serve as committee members;
- performing an annual evaluation of our board of directors;
- evaluating the need and, if necessary, creating a plan for the continuing education of our directors; and
- assessing and reviewing our corporate governance guidelines and recommending any changes to our board of directors.

Compensation and HR Committee. The members of our compensation and HR committee, or our compensation committee, are Messrs. Ebersman and Shaw and Drs. Roberts and Walsh. Dr. Roberts chairs the compensation committee. In July 2010, Dr. Roberts will step down as chair of the compensation committee (and as a member), at which time Mr. Shaw will assume the chair. As described above, each member of our compensation committee satisfies the independence standards established by Rule 10A-3 under the Exchange Act, the SEC and the NASDAQ Marketplace Rules. In addition, each member of our compensation committee qualifies as a "non-employee director" under Rule 16b-3 of the Exchange Act. Our compensation committee assists the board of directors in the discharge of its responsibilities relating to the compensation of the board of directors and our executive officers.

Our compensation committee's responsibilities include:

- reviewing and approving corporate goals and objectives relevant to executive officer compensation and evaluating the performance of executive officers in light of those goals and objectives;
- reviewing and approving, or recommending for approval by the independent directors, executive
  officer compensation, including salary, bonus and incentive compensation, deferred
  compensation, perquisites, equity compensation, benefits provided upon retirement, severance or
  other termination of employment, and any other forms of executive compensation;
- reviewing and approving, or recommending for approval by the independent directors, our chief executive officer's compensation based on its evaluation of the chief executive officer's performance;
- overseeing and administering our incentive compensation plans and equity-based plans and recommending the adoption of new incentive compensation plans and equity-based plans to our board of directors including the determination of the fair market value of our common stock;
- making recommendations to our board of directors with respect to director compensation;
- reviewing and discussing with management the compensation discussion and analysis required to be included in our filings with the SEC and recommending whether the compensation discussion and analysis should be included in such filings;
- preparing the compensation committee report required by SEC; and

• making recommendations to our board of directors with respect to management succession planning, including planning with respect to our chief executive officer.

## Compensation Committee Interlocks and Insider Participation

None of the members of our compensation committee is or has at any time during the past fiscal year been an officer or employee of Ironwood. None of the members of the compensation committee has formerly been an officer of Ironwood. None of our executive officers serve, or in the past fiscal year has served, as a member of the board of directors or compensation committee of any other entity that has one or more executive officers serving as a member of our board of directors or compensation committee. For a description of transactions between us and members of the compensation committee and entities affiliated with such members, please see "Certain Relationships and Related Transactions, and Director Independence."

## Section 16(a) Beneficial Ownership Reporting Compliance

Our directors, executive officers and beneficial owners of more than 10% of our Class A common stock and Class B common stock, combined, are required under Section 16(a) of the Exchange Act to file reports of ownership and changes in ownership of our securities with the SEC. We completed the initial public offering of our Class A common stock on February 8, 2010; accordingly, we did not have a class of equity securities registered pursuant to Section 12 of the Exchange Act in 2009.

#### Item 11. Executive Compensation

# **Compensation Committee Report**

The Compensation and HR Committee (the "Committee") has:

- 1. reviewed and discussed with management the Compensation Discussion and Analysis included in the company's Annual Report on Form 10-K for the year ended December 31, 2009; and
- 2. based on the review and discussions referred to in paragraph (1) above, the Committee recommended to the Board of Directors that the Compensation Discussion and Analysis be included in the company's Annual Report on Form 10-K.

By the Compensation and HR Committee,

Bryan E. Roberts, Chair David Ebersman David E. Shaw Christopher T. Walsh

#### **Compensation Discussion and Analysis**

This section discusses the principles underlying our policies and decisions with respect to the compensation of our executive officers who are named in the "Summary Compensation Table", or our "named executive officers", and all material factors relevant to an analysis of these policies and decisions. Our named executive officers are:

- Peter M. Hecht, Ph.D., Chief Executive Officer;
- Michael J. Higgins, Chief Operating Officer and Chief Financial Officer;
- Mark G. Currie, Ph.D., Senior Vice President, Research and Development and Chief Scientific Officer; and
- Thomas A. McCourt, Senior Vice President, Marketing and Sales and Chief Commercial Officer.

# Compensation Philosophy

We are an entrepreneurial pharmaceutical company dedicated to creating, developing, and commercializing innovative human medicines. The objective of our compensation policies is to provide compensation and incentives which attract, motivate and reward outstanding talent across Ironwood through well-communicated programs that are aligned with our core values and business mission, and support a positive company culture. Our core values are to:

- build a thriving and sustainable business by focusing on creating long term value;
- maintain a collaborative environment which fosters innovation;
- recognize and develop the abilities and interests of our employees, consistent with the needs of Ironwood;
- · act with integrity and humanity; and
- · have fun.

We are guided by the following principles with respect to our compensation determinations:

- design compensation and incentive programs that align employee actions and motivations with
  the interests of our stockholders, support our business objectives and reward the achievement of
  key goals and milestones;
- foster and support our performance-driven culture by setting clear, high-value goals, rewarding outstanding performers, and making sure our best performers know clearly how much we value their contributions;
- as with all spending, serve as careful stewards of our stockholders' assets when making decisions to increase compensation or to make equity awards;
- maximize our employees' sense of ownership so that they have a long-term owner's perspective, can see the impact of their efforts on our success, and can share in the benefits of that success through the opportunity to become stockholders of Ironwood via stock options and awards;
- recognize that compensation is one of a number of tools to stimulate and reward productivity and great drug making, together with recognizing individual growth potential, providing a great workplace culture, and sharing in our success;
- foster a strong team culture, focused on our principles of great drug making, which is reinforced through our compensation and incentive programs;
- · design compensation and incentive programs that are fair, equitable and competitive; and
- design compensation and incentive programs that are simple and understandable.

## Basis for Historical and Future Compensation Policies and Decisions

Our compensation policies have historically been established by our board of directors, with the advice and recommendation of our compensation committee. As set forth in our compensation committee's written charter, adopted in 2008 and amended in 2009, the compensation committee has the responsibility of reviewing and approving, or recommending for approval to the full board, the compensation of our executive officers; annually reviewing and determining our chief executive officer's compensation based on the board's evaluation of his performance; recommending to the full board the adoption of new compensation plans; and administering our existing plans. In addition, the compensation committee is responsible for ensuring that our compensation policies are aligned with our compensation philosophy and guiding principles.

We do not have employment agreements with our named executive officers. Each component of each of our executive officer's initial compensation package was based on numerous factors, including:

- the individual's particular background and circumstances, including prior relevant work experience and compensation paid prior to joining us;
- the individual's role with us and the compensation paid to similar persons in the companies represented in the compensation data that we reviewed;
- the demand for people with the individual's specific expertise and experience at the time of hire;
- performance goals and other expectations for the position;
- comparison to other executives within Ironwood having similar levels of expertise and experience; and
- uniqueness of industry skills.

Historically, our compensation policies and individual compensation determinations have been based on an annual evaluation, and we have taken into consideration our results of operations, our long and short-term goals, individual goals, the competitive market for our executives with similar stage companies and general economic factors. In 2009, we engaged Pearl Meyer & Partners, or Pearl Meyer, to conduct a competitive assessment of compensation for selected executive positions with respect to base salary, actual total cash compensation, target total cash compensation, and long-term incentives. In addition, Pearl Meyer prepared a detailed equity dilution analysis, a review of the compensation strategy and philosophy of a group of companies we consider to be our peer group and a review of the short-term and long-term incentive practices of these peer companies. Pearl Meyer also compared our executive compensation to market compensation data from the Radford Biotechnology Executive Survey and the SIBS Executive Compensation Survey, two confidential survey sources based on revenue and executive officer position. Pearl Meyer's assessment of executive compensation showed generally that total cash compensation of our named executive officers was below the 25th percentile of the market data, but that our long-term incentive equity participation was above the median of the market data. The results of Pearl Meyer's assessment were presented to the compensation committee and will be taken into consideration when making future compensation decisions but will not be used to mandate any specific actions.

Our peer group, which was compiled by Pearl Meyer with input from us, the board of directors, and the compensation committee, is composed of the U.S. based, publicly-traded companies in the pharmaceutical, biotechnology and life sciences industries listed below, which have a median revenue of approximately \$116.0 million, a median market capitalization of \$870.3 million, a median R&D expense of \$72.8 million, and a commercial drug or drug candidate in later stage development (other than Alnylam):

- Alexion Pharmaceuticals, Inc.;
- Alnylam Pharmaceuticals, Inc.;
- AMAG Pharmaceuticals, Inc.;
- Auxilium Pharmaceuticals Inc.;
- Medivation, Inc.;
- Onyx Pharmaceuticals, Inc.;
- Optimer Pharmaceuticals, Inc.;
- Regeneron Pharmaceuticals, Inc.;

- Salix Pharmaceuticals, Ltd.;
- Theravance, Inc.;
- · Vertex Pharmaceuticals Incorporated; and
- Xenoport, Inc.

## Elements of Executive Compensation and Determination of Amounts

In 2009, the compensation program for our executive officers consisted principally of base salary and long-term compensation in the form of stock options. Our compensation program is weighted toward long-term compensation as opposed to short-term or cash-based compensation as we believe this better aligns our employees with our core values. If we achieve our corporate goals, we expect our stock price to rise and the stock option awards currently held by our executives to become the major component of overall compensation. To date, we have not implemented any cash bonus program for named executive officers or our employees as a whole. As discussed below, in 2009 we adopted a change of control severance benefit plan, or our change of control plan, applicable to all employees.

#### Base Salary

Base salaries for our executive officers are determined at commencement of employment and are generally re-evaluated annually and adjusted, if warranted, to realign salaries with market levels and to reflect the performance of the executive. In determining whether to adjust an executive's base salary, our compensation committee takes into consideration factors such as our performance in prior years, individual performance, general economic factors and compensation equity among our executive officers. The compensation committee sets base salaries primarily based on the abilities, performance and experience of our named executive officers. The compensation committee also reviews our named executive officers' past compensation and compensation data for comparable positions in our industry. The compensation committee seeks to set base salaries for our named executive officers at competitive levels, generally targeting the 50th percentile as compared to peer group and survey data, but focuses on equity-based compensation for the reasons identified below.

#### Equity-Based Compensation

To reward and incentivize our named executive officers in a manner that best aligns their interests with our stockholders' interests, we use stock options as the primary incentive vehicles for long-term compensation. To date, stock options have been granted with both time and performance-based vesting conditions to each of our executive officers. We believe that stock options are an effective tool for meeting our compensation goal of increasing long-term stockholder value by tying the value of the stock options to our future performance. Because employees are able to profit from stock options only if our stock price increases relative to the stock option's exercise price, we believe stock options provide meaningful incentives to employees to increase the value of our stock over time. All employee stock options issued prior to our intial public offering can be exercised prior to vesting, with any shares issued upon such exercise subject to repurchase by us in the event the executive is no longer employed by us. We have not granted any equity awards other than stock options to our named executive officers to date.

We adopted a new equity incentive plan in connection with our initial public offering. Similar to our previous and current equity incentive plans, our new equity incentive plan encompasses multiple forms of equity which may be issued in the future, including stock options and stock awards.

Our compensation committee does not apply a rigid formula in allocating stock options to executives as a group or to any particular executive, but does emphasize the achievement of corporate goals in determining approximately 75% of each annual performance award for our executive officers,

other than Dr. Hecht. Substantially all of Dr. Hecht's annual performance award is based on the achievement of corporate objectives. In addition, our compensation committee exercises its judgment and discretion and considers, among other things, the role and responsibility of the executive, competitive factors, the amount of share-based equity compensation already held by the executive, the non-equity compensation received by the executive and the total number of options to be granted to all participants during the year. Our compensation committee makes an initial option grant to new employees and annual grants to our employees in connection with the annual review of our employees' compensation, as further discussed below, and throughout the year may award additional grants as circumstances warrant. The compensation committee has the discretion to reprice options under our existing equity plans but has not exercised this discretion to date.

We do not currently have any security ownership requirements for our named executive officers. In addition we have never had a program or policy in place to coordinate equity grants with the release of material non-public information.

#### Initial Stock Option Awards

We make an initial award of stock options to all new employees in connection with the commencement of their employment. These grants have an exercise price equal to the fair market value of our common stock on the grant date, as determined by our compensation committee, and vest over four years as to 25% of the shares on the first anniversary of the date of hire and as to ½8th of the total shares each month thereafter for the next 36 months. The initial stock option awards are intended to provide the employee with incentive to build value in the organization over an extended period of time and to maintain competitive levels of total compensation.

# Annual Stock Option Awards

Our practice is to make annual stock option awards to all employees as part of our annual compensation program, and historically we have granted such awards in February of each year based on our performance in the prior year. These grants have an exercise price equal to the fair market value of our common stock on the grant date, as determined by our compensation committee, and generally vest over four years as to 1.25% of the shares on each monthly anniversary of the vesting commencement date, which is January 1 of the applicable year, for the first 36 months, and as to 4.583% of the shares each month thereafter.

Historically, our management and compensation committee has reviewed anonymous private company compensation surveys and drawn upon the experience of our compensation committee members in determining long-term equity incentive awards. Based upon these factors, our compensation committee determines the size of the long-term equity incentives at levels it considers appropriate to create a meaningful opportunity for reward predicated on the creation of long-term stockholder value.

#### Milestone-Based Stock Option Awards

Our named executive officers and many of our employees have a significant portion of their incentive compensation in milestone-based equity awards that accelerate upon the achievement of major value-creating events which may occur many years from the date of grant. We believe performance based equity awards align our employees with our stockholders' best interests and motivate our employees to apply their best efforts toward the accomplishment of these value-creating events.

#### Change of Control Severance Benefit Plan

In May 2009, our compensation committee adopted our change of control plan that applies to all of our employees and provides for certain payments and benefits in connection with or following a termination of employment associated with a "change of control" (as defined therein). We adopted this change of control plan on the premise that innovative ideas and the associated intellectual property generated from these ideas are the basis upon which economic value is created in the biopharmaceutical industry and that our employees are the source of these value-creating ideas. The potential for a change of control or other event that could substantially change the nature and structure of Ironwood could therefore adversely affect our ability to recruit and motivate employees. The change of control plan was designed to encourage employees to bring forward their best ideas by providing them with the knowledge that if a change of control occurs, and their employment is terminated as a result thereof, they will have an opportunity to share in the value that they helped create for our stockholders, regardless of their employment status at Ironwood after the change of control. The key goals of our change of control plan are to recognize the value of employees' contributions to us through the acceleration of equity awards with time-based vesting and to ensure employees have a reasonable period of time within which to locate suitable employment without undue financial hardship. We believe that our change of control plan is a positive recruitment tool in attracting top talent to Ironwood.

A further description of the change of control plan and the potential payments to our named executive officers pursuant to the plan is set forth below under the heading "Potential Payments Upon Termination or Change in Control."

# Other Compensation

We maintain broad-based benefits that are provided to all employees, including health insurance, life and disability insurance, dental insurance, fitness and transportation stipends, and a 401(k) plan with a 50% matching company contribution on the first \$6,000 of an employee's annual contribution. None of our named executive officers or other employees receives perquisites of any nature.

#### Process for Determining Individual Compensation and Role of Executive Officers

Historically, our compensation program follows a process that begins in January of each year during which the board finalizes its assessment of our corporate performance for the prior year. The compensation committee, in consultation with our chief executive officer, uses the board's assessment to determine the appropriate size of pools for salary increases and stock option awards to be awarded based on performance during the prior year compared to established goals. Each year, a target percentage of our budget is allocated toward salary increases on the basis of 100% achievement of corporate goals. Similarly, a stock option pool is established at a set percentage of our fully diluted shares, assuming 100% achievement of corporate goals. Upon completion of our goal assessment, both pools are calibrated for corporate performance. The compensation committee assigns a portion of these pools to those individuals holding positions at the vice president level or above, and designates the appropriate portion of each pool for allocation by management to all other employees. To assist the compensation committee in determining the size of the incentive pools, our management prepares a matrix of salary ranges and stock option awards for our positions based on industry comparisons and benchmark data from Radford surveys (that also provide the basis for determining salary offers for new hires), salary adjustments based on internal or external pay parity and promotional adjustments for the ensuing fiscal year. In February of each year, the compensation committee approves all of the annual stock option awards and salary increases.

During the first quarter of each year, the compensation committee and management assign the appropriate weights to each of our corporate and financial goals established during the prior year.

Managers will subsequently conduct mid-year discussions with their direct reports on the progress of achieving individual performance goals. During the fourth quarter, the compensation committee conducts a preliminary assessment of corporate performance for the current year, employees begin conducting self-assessments, and managers begin collecting input from others within Ironwood and drafting performance reviews.

## Tax and Accounting Considerations

While the compensation committee generally considered the financial accounting and tax implications of its executive compensation decisions, neither element was a material consideration in the compensation awarded to our named executive officers in 2009.

#### Relationship of Elements of Compensation

Our compensation structure is comprised primarily of base salary and stock options. In setting executive compensation, the compensation committee considers the aggregate compensation payable to an executive officer and the form of such compensation. We use stock options as a significant component of compensation because we believe that this best ties individual compensation to the creation of stockholder value. While we offer competitive base salaries, we believe share-based compensation is a significant motivator in attracting and motivating employees. Awards of stock options generally have either long-term vesting schedules, typically four years, or vest upon the achievement of important value-creating milestones. If an employee leaves our employ before the completion of the vesting period, then that employee does not receive any benefit from the non-vested portion of his award. We believe that this feature makes it more attractive to remain as our employee and these arrangements do not require substantial cash payments by us.

The compensation committee manages the expected impact of salary increases payable to our named executive officers by requiring that the size of any salary increases be tied to the attainment of corporate and individual goals.

The compensation committee may decide, as appropriate, to modify the mix of base salary, annual and long-term incentives to best fit an executive officer's specific circumstances or if required by competitive market conditions, to attract and motivate skilled personnel. For example, the compensation committee may decide to award additional stock options to an executive officer if the total number of stock option grants received during an individual's employment with us does not adequately reflect the executive's current position. We believe that this discretion and flexibility allows the compensation committee to better achieve our compensation objectives.

#### Compensation Actions in 2009 and 2010

#### Goals

For 2009, allocations of cash and stock options were, in large part, dependent upon us meeting certain weighted performance objectives. These performance objectives encompassed three categories: (i) clinical, business development and manufacturing milestones for our most advanced product candidate, linaclotide, (ii) research milestones designed to encourage effective and efficient innovation, and (iii) financial objectives aimed at the effective and efficient use of our capital. In addition to our core goals, we also create aggressive stretch goals, which, if accomplished, can result in overachieving our annual goals. Dr. Hecht's performance evaluation was based primarily on the achievement of our corporate objectives. In addition to the achievement of corporate goals, our other named executive officers are evaluated on the achievement of additional individual goals which contribute toward, and relate directly to, the accomplishment of our corporate objectives.

Our 2009 corporate goals were used to determine compensation awards and adjustments in early 2010. In December 2009, our board of directors determined that we met 105% of our corporate objectives, which consisted of the following:

| Corporate Goal   | Target Percentage (%) | Actual Level of<br>Achievement (%) |
|--|-----------------------|------------------------------------|
| Advance linaclotide Phase 3 program, secure partnership for linaclotide ex-U.S, and finalize |                       |                                    |
| commercial manufacturing strategy  | 60                    | 70                                 |
| Pipeline advancement   | 15                    | 10                                 |
| control  | _25                   | _25                                |
| Totals   | 100                   | 105                                |

In addition to the 2009 corporate goals identified above, for which each of our named executive officers is directly accountable, the following is a summary of the 2009 individual goals for our named executive officers, other than Dr. Hecht, who is compensated primarily on the basis of the achievement of our corporate goals, and Mr. McCourt, who did not join us until the fall of 2009:

| Named Executive Officer | Summary of Individual Goals  |
|-------------------------|--|
| Mark Currie             | <ul> <li>Meet enrollment goals for linaclotide clinical studies and generate Phase 3 data</li> <li>Complete ex-U.S. transaction for linaclotide</li> <li>Bring one clinical candidate through Phase 1 studies</li> <li>Submit additional IND for a new product candidate</li> <li>Develop two new clinical candidates</li> </ul> |
| Michael Higgins         | <ul> <li>Secure linaclotide manufacturing supply chain</li> <li>Complete ex-U.S. transaction for linaclotide</li> <li>Prepare Ironwood for an initial public offering</li> <li>Develop linaclotide launch strategy</li> <li>Manage the expenses of the company to enable it to meet its corporate cash objectives</li> </ul>     |

Base Salary

During 2009, our named executive officers received the following base salaries: Dr. Hecht—\$100,000, Mr. Higgins—\$265,000, Dr. Currie—\$315,000, and Mr. McCourt—\$325,000. None of our named executive officers or other employees received an increase in base salary either for 2008 performance or during 2009, as our chief executive officer and compensation committee determined that we should maintain our current base salaries given the general economic environment at that time. Based on management's recommendation, in lieu of salary increases, the compensation committee authorized a merit and adjustment pool representing an average of 2% of base salary that was paid to each employee in February 2009 in a one-time lump sum payment. Mr. Higgins received a one-time payment of \$5,000 and Dr. Currie received \$8,000. Mr. McCourt, who joined us in the fall of 2009, was not eligible for this one-time payment. Dr. Hecht elected not to receive the one-time merit payment.

In early 2010, the compensation committee reviewed and recommended the following compensation with respect to Mr. Currie and Mr. Higgins: (i) Mr. Currie received a \$20,000 increase in base salary for 2010 from \$315,000 to \$335,000, and (ii) Mr. Higgins received a \$15,000 increase in base salary for 2010 from \$265,000 to \$280,000. Mr. McCourt joined the company in the fourth quarter of 2010, and was therefore ineligible for an increase to his base salary.

Dr. Hecht's salary of \$100,000 represents the salary that he has been receiving since he began serving as chief executive officer in 1998. Dr. Hecht's compensation is reviewed annually by our compensation committee. For 2010, the compensation committee recommended an increase to Dr. Hecht's base salary to be market competitive with his peers, but Dr. Hecht declined to accept any increase. Further, Dr. Hecht has indicated to the compensation committee that he would not expect an increase to his salary in the future.

## Annual Stock Option Grants and New Hire Grant

Based on our achievement of 80% of our corporate objectives in 2008, as determined by our board, the option pool from which the named executive officers were awarded annual stock option grants in 2009 was proportionately reduced. Both Dr. Currie and Mr. Higgins were deemed to have exceeded their individual objectives in 2008. Accordingly, they received their full incentive award plus an additional amount of options from the pool that had been proportionately reduced based on our achievement of 80% of our corporate objectives.

On February 12, 2009, each of our named executive officers was awarded the following stock option grants of Class B common stock based on his performance during 2008.

| Named Executive Officer | 2009 Annual Option<br>Grant for 2008 Performance<br>(# of Shares of Class B<br>Common Stock Subject to Option) |
|-------------------------|--|
| Peter M. Hecht, Ph.D.   | 110,000  |
| Mark G. Currie, Ph.D    | 125,000  |
| Michael J. Higgins      | 95,000   |

These options were granted under our Amended and Restated 2005 Stock Incentive Plan, or our 2005 Plan, have an exercise price of \$4.89 per share (which was the fair market value of our Class B common stock on the date of grant, as determined by our board of directors) and vest as to 1.25% of the award on each monthly anniversary following January 1, 2009 for the first 36 months, and as to 4.583% of the award each month thereafter. Dr. Currie also received options to purchase 50,000 shares of Class B common stock that vested in full on the date of the grant in recognition of the success of our Phase 2b program for our product candidate, linaclotide, due to Dr. Currie's primary responsibility for the program.

Mr. McCourt was not eligible for a performance grant in February 2009 since he did not join us until the fall of 2009. Upon joining Ironwood, Mr. McCourt received a total of 200,000 time-based options to purchase shares of Class B common stock which vest over four years, and an additional 160,000 options to purchase Class B common stock that vest in increments of 40,000 each upon meeting certain performance milestones, including: (i) acceptance by the FDA of our first NDA; (ii) the first commercial sale of our product candidate linaclotide, (iii) acceptance by the FDA of our second NDA, and (iv) achieving \$1.0 billion in global pharmaceutical product sales.

Based on our achievement of 105% of our corporate objectives in 2009, as determined by our board, the option pool from which the named executive officers were awarded annual stock option grants in 2010 was proportionately increased. Dr. Currie and Mr. Higgins were deemed to have met their individual objectives in 2009. Accordingly, they received their full incentive award from the pool

that had been proportionately increased based on our achievement of 105% of our corporate objectives.

On February 2, 2010, each of our named executive officers was awarded the following stock option grants of Class A common stock based on his performance during 2009.

2010 Annual Ontion

| Named Executive Officer | Grant for 2009 Performance (# of Shares of Class A Common Stock Subject to Option) |
|-------------------------|--|
| Peter M. Hecht, Ph.D.   | 125,000  |
| Mark G. Currie, Ph.D    | 90,000   |
| Michael J. Higgins      | 85,000   |
| Thomas A. McCourt       |  |

These options were granted under our 2005 Plan, have an exercise price of \$11.25 per share (which was the initial public offering price of our Class A common stock on such date, which also was the grant date) and vest as to 1.25% of the award on each monthly anniversary following January 1, 2010 for the first 36 months, and as to 4.583% of the award each month thereafter.

#### Milestone Grants

In July 2009, the board of directors granted options to purchase shares of Class B Common Stock to various employees, including Dr. Hecht, Mr. Higgins and Dr. Currie who each received options to purchase 40,000 shares of our Class B common stock, that will vest as to 50% of the shares upon our achievement of \$1 billion in global pharmaceutical product sales, and as to the remaining 50% of the shares upon the acceptance by the FDA of our second NDA. These options have an exercise price of \$5.48 per share and may be exercised prior to vesting, with any shares issued upon such exercise subject to repurchase by us in the event the employee terminates his employment with us. The compensation committee and the board of directors determined that these performance grants would be a strong motivational tool linked to real and value-creating events for us as a whole.

#### **Summary Compensation Table**

The following table sets forth information regarding the compensation paid or accrued during the fiscal year ended December 31, 2009 to each of our named executive officers.

| Name and Principal Position  | Year | Salary<br>(\$) | <b>Bonus</b> (\$) <sup>(1)</sup> | Option<br>Awards<br>(\$) <sup>(2)</sup> | All Other<br>Compensation<br>(\$) <sup>(3)</sup> | Total<br>(\$) |
|--|------|----------------|----------------------------------|---|--|---------------|
| Peter M. Hecht, Ph.D   | 2009 | 100,000        | 0                                | 459,880                                 | 4,410  | 564,290       |
| Michael J. Higgins   | 2009 | 265,000        | 5,000                            | 415,588                                 | 4,410  | 689,998       |
| Mark G. Currie, Ph.D Senior Vice President, R&D and Chief Scientific Officer | 2009 | 315,000        | 8,000                            | 651,812                                 | 4,410  | 979,222       |
| Thomas A. McCourt <sup>(4)</sup>   | 2009 | 102,292        | 0                                | 1,215,648                               | 1,961  | 1,319,901     |

<sup>(1)</sup> Consists of a one-time payment in lieu of a pay raise.

- (2) Reflects the fair value of milestone-based and time-based stock option awards on the date of grant. The value is calculated in accordance with ASC 718, Compensation—Stock Compensation. For a discussion of the assumptions used in the valuation, see Note 15 to our consolidated financial statements for the year ended December 31, 2009 included elsewhere in this Annual Report on Form 10-K. See also our discussion of share-based compensation under "Management's Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Policies and Estimates." Milestone-based stock option awards made in July and September 2009 are shown at 100% of target as if each milestone is achieved. The grant date fair value at target is equal to the maximum grant date fair value for the milestone-based stock option awards.
- (3) Consists of matching contributions made under our 401(k) plan, as well as a transportation stipend and a fitness stipend. For Mr. McCourt, this amount also includes reimbursement of his relocation expenses incurred in connection with the commencement of his employment with us in September 2009. As set forth in Mr. McCourt's offer letter, we have agreed to reimburse Mr. McCourt up to \$300,000 for his relocation and other expenses incurred in connection with the commencement of his employment.
- (4) Mr. McCourt began employment as our Chief Commercial Officer and Senior Vice President, Marketing and Sales on September 8, 2009. Mr. McCourt's annualized salary is \$325,000.

## Grants of Plan-Based Awards (2009)

The following table sets forth information regarding equity awards granted to each of our named executive officers during the fiscal year ended December 31, 2009. All equity awards granted to our named executive officers in 2009 consisted of options to purchase shares of our Class B common stock and were granted under our 2005 Plan with an exercise price equal to the fair market value of our Class B common stock, as determined by our compensation committee, on the date of grant. The vesting schedule of each option included in the following table is described in the footnotes to the Outstanding Equity Awards at Fiscal Year-End (2009) table.

| Name                 | Grant<br>Date | Estimated Future Payouts Under Equity Incentive Plan Awards Target (#) | All Other Option Awards: Number of Securities Underlying Options (#) | Exercise or<br>Base Price<br>of Option<br>Awards<br>(\$/Sh) | Grant Date<br>Fair Value<br>of Stock<br>and Option<br>Awards<br>(\$) <sup>(1)</sup> |
|----------------------|---------------|--|--|---|---|
| Peter M. Hecht, Ph.D | 2/12/2009     | _  | 110,000  | 4.89  | 324,808   |
|                      | 7/29/2009     | 40,000   | _  | 5.48  | 135,072   |
| Michael J. Higgins   | 2/12/2009     | _  | 95,000   | 4.89  | 280,516   |
|                      | 7/29/2009     | 40,000   | _  | 5.48  | 135,072   |
| Mark G. Currie, Ph.D | 2/12/2009     | _  | 50,000   | 4.89  | 147,640   |
|                      | 2/12/2009     | _  | 125,000  | 4.89  | 369,100   |
|                      | 7/29/2009     | 40,000   | _  | 5.48  | 135,072   |
| Thomas A. McCourt    | 9/8/2009      |  | 200,000  | 5.48  | 675,360   |
|                      | 9/8/2009      | 160,000  | _  | 5.48  | 540,288   |

<sup>(1)</sup> Represents the grant date fair value of the stock options calculated in accordance with ASC 718. For a discussion of the assumptions used in the valuation, see Note 15 to our consolidated financial statements for the year ended December 31, 2009 included elsewhere in this Annual Report on Form 10-K. See also our discussion of share-based compensation under "Management's Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Policies and Estimates." For milestone-based stock option awards made in July and September

2009, the amount represents the fair value at the date of grant based upon the achievement of the milestones.

#### **Employment Agreements**

We do not have employment agreements with any of our named executive officers. Upon commencement of employment, each named executive officer was offered a base salary and an initial stock option award, and, in the case of Mr. McCourt, reimbursement of up to \$300,000 for relocation and other expenses incurred in connection with the commencement of his employment. In addition, each named executive officer is granted annual stock option awards which have long-term vesting schedules, typically four years, or vest upon the achievement of important value-creating milestones as detailed in the footnotes to the Outstanding Equity Awards at Fiscal Year-End table. None of our named executive officers has severance benefits outside of the change of control plan discussed above, which covers all of our employees.

# Outstanding Equity Awards at Fiscal Year-End (2009)

The following table sets forth information regarding outstanding equity awards held by each of our named executive officers on December 31, 2009, the last day of our last fiscal year.

| Name  | Number of<br>Securities<br>Underlying<br>Unexercised<br>Options (#)<br>Exercisable <sup>(1)</sup> | Number of<br>Securities<br>Underlying<br>Unexercised<br>Options (#)<br>Unexercisable <sup>(1)</sup> | Equity Incentive<br>Plan Awards:<br>Number of<br>Securities<br>Underlying<br>Unexercised<br>Unearned<br>Options (#) <sup>(1)</sup> | Option<br>Exercise<br>Price (\$) | Option<br>Expiration Date                           |
|---|---|---|--|----------------------------------|---|
| Peter M. Hecht, Ph.D                        | 50,000  |   |  | 0.41                             | 4/23/2012 <sup>(2)</sup>                            |
| 1 0001 1111 1100110, 1 1112 1 1 1 1 1 1 1 1 | 100,000   | _   | _  | 0.41                             | $4/23/2012^{(3)}$                                   |
|   | 50,000  | _   | _  | 0.60                             | $12/16/2013^{(3)}$                                  |
|   | 50,000  |   |  | 0.60                             | 12/16/2013 <sup>(4)</sup>                           |
|   | 50,000  | _   | _  | 0.60                             | 1/1/2014 <sup>(4)</sup>                             |
|   | 100,000   | _   | _  | 0.60                             | 3/1/2014 <sup>(5)</sup>                             |
|   | 75,000  |   | _  | 0.60                             | 3/1/2014 <sup>(3)</sup>                             |
|   | 90,000  |   | _  | 0.60                             | 3/1/2015(3)   |
|   | 60,000  | _   | _  | 0.60                             | 3/1/2015(4)   |
|   | 60,000  | _   | _  | 0.60                             | 3/1/2015(6)   |
|   |   | _   | 800,000  | 1.56                             | $3/14/2016^{(7)}$                                   |
|   | 35,000  | _   | _  | 1.56                             | 3/13/2016 <sup>(3)</sup>                            |
|   | 100,000   |   | _  | 2.94                             | $1/22/2017^{(3)}$                                   |
|   | 140,000   | _   | _  | 3.76                             | $1/31/2018^{(3)}$                                   |
|   | 110,000   |   | _  | 4.89                             | $2/11/2019^{(3)}$                                   |
|   |   |   | 40,000   | 5.48                             | 7/28/2019(8)  |
| Michael J. Higgins                          | 225,000   | _   | _  | 0.60                             | $7/15/2013^{(2)}$                                   |
|   | 150,000   | _   | _  | 0.60                             | $7/15/2013^{(9)}$                                   |
|   | 50,000  | _   | _  | 0.60                             | $3/1/2015^{(3)}$                                    |
|   | _   |   | 200,000  | 1.56                             | 3/14/2016 <sup>(10)</sup>                           |
|   | 35,000  | _   | _  | 1.56                             | 3/13/2016 <sup>(3)</sup>                            |
|   | 50,000  | _   | _  | 2.94                             | $1/22/2017^{(3)}$                                   |
|   | 90,000  | _   | _  | 3.76                             | 1/31/2018 <sup>(3)</sup>                            |
|   | 95,000  |   |  | 4.89                             | $2/11/2019^{(3)}$                                   |
|   |   | _   | 40,000   | 5.48                             | 7/28/2019 <sup>(8)</sup>                            |
| Mark G. Currie, Ph.D                        | 140,000   | _   | _  | 0.60                             | 9/24/2012 <sup>(2)</sup>                            |
|   | 75,000  | _   | _  | 0.60                             | $2/24/2014^{(5)}$                                   |
|   | 60,000  |   | _  | 0.60                             | 2/24/2014 <sup>(3)</sup>                            |
|   | 95,000  |   | 200.000  | 0.60                             | 3/1/2015 <sup>(3)</sup>                             |
|   | 75.000  |   | 300,000  | 1.56                             | 3/14/2016 <sup>(11)</sup>                           |
|   | 75,000  |   | _  | 1.56                             | 3/14/2016 <sup>(3)</sup>                            |
|   | 90,000  | _   | 200,000  | 2.94                             | 1/22/2017 <sup>(3)</sup>                            |
|   | 120,000   | _   | 300,000  | 2.94                             | 1/22/2017 <sup>(12)</sup>                           |
|   | 120,000<br>50,000   | _   | _  | 3.76                             | 1/31/2018 <sup>(3)</sup>                            |
|   | ,   | _   | _  | 4.89                             | 2/11/2019 <sup>(13)</sup>                           |
|   | 125,000   | _   | 40,000   | 4.89<br>5.48                     | 2/11/2019 <sup>(3)</sup>                            |
| Thomas A. MaCaust                           | 200.000   | _   | 40,000   | 5.48<br>5.48                     | 7/28/2019 <sup>(8)</sup><br>9/7/2019 <sup>(2)</sup> |
| Thomas A. McCourt                           | 200,000   | _   | 160,000  | 5.48<br>5.48                     | 9/7/2019 <sup>(2)</sup> 9/7/2019 <sup>(14)</sup>    |
|   | _   | _   | 160,000  | 5.48                             | 9/1/2019(11)  |

<sup>(1)</sup> Represents options to purchase shares of our Class B common stock.

- (2) The options vest as to 25% of the shares on the first anniversary of the vesting commencement date and 1/48th of the shares each month thereafter for the next 36 months.
- (3) The options vest as to 1.25% on each monthly anniversary of the vesting commencement date for the first 36 months, and as to 4.5833% of the shares on each monthly anniversary thereafter until fully vested.
- (4) The options vested in equal installments on each monthly anniversary of the vesting commencement date for 12 months.
- (5) The options vest as to all of the shares upon the earlier of commencement of our first Phase 2b trial and March 1, 2010.
- (6) The options vest as to all of the shares upon the completion of a substantial transaction as decided by the compensation committee.
- (7) The option vests as to (a) 10% of the shares immediately upon the first acceptance by the FDA of an NDA filed by us, and an additional 40% of the shares in equal monthly installments over the ensuing two year period; (b) 7.5% of the shares immediately upon the first commercial sale of our first product, and an additional 30% of the shares in equal monthly installments over the ensuing two year period; (c) 12.5% of the shares immediately upon our achievement of an average market capitalization of at least \$20.00 per share of Class A common stock for forty-five days out of any sixty day period on a split-adjusted basis; and (d) all unvested shares remaining on January 1, 2016.
- (8) The options vest as to (a) 50% of the shares upon the achievement of \$1 billion in global pharmaceutical product sales (including partnered or licensed product revenue) of a certain threshold and (b) 50% of the shares upon acceptance by the FDA of a second NDA for a product from an internal or external development program (excluding supplemental NDAs for linaclotide, but including NDAs for linaclotide combination products). External development programs shall be pre-qualified for milestone vesting eligibility by the compensation committee as of the time of program initiation at Ironwood.
- (9) The option vested as to (a) 25% of the shares immediately upon our achievement of a market capitalization of \$250 million; (b) 12.5% of the shares immediately upon our raising an aggregate of \$25 million cash in partnership agreements and equity financings subsequent to May 6, 2003; (c) 12.5% of the shares immediately upon our raising an aggregate of \$50 million cash in partnership agreements and equity financings; (d) 25% of the shares immediately upon our raising an aggregate of \$100 million cash in partnership agreements and equity financings; (e) 25% of the shares immediately upon the acceptance of one of our drug candidates into a Phase 2a study and one of our compounds into a Phase 2b clinical study.
- (10) The option vests as to (a) 50% of the shares immediately upon the first acceptance by the FDA of an NDA filed by us; (b) 25% of the shares immediately upon the first commercial sale of our first product; (c) 25% of the shares immediately upon our achievement of an average market capitalization of at least \$20.00 per share of Class A common stock for forty-five days out of any sixty day period on a split-adjusted basis; and (d) all unvested shares remaining on January 1, 2016.
- (11) The option vests as to (a) 50% of the shares immediately upon the first acceptance by the FDA of an NDA filed by us; (b) 50% of the shares immediately upon the first commercial sale of our first product; and (c) all of the unvested shares remaining on January 1, 2016.
- (12) The option vests as to (a) 25% of the shares immediately upon the entry of a novel Ironwood drug candidate (other than certain Ironwood compounds or linaclotide for gastrointestinal indications) into Phase 3 clinical studies; (b) 50% of the shares immediately upon the first acceptance by the FDA of an NDA filed by us for a novel Ironwood drug candidate (other than certain Ironwood compounds or linaclotide for gastrointestinal indications); (c) 25% of the shares immediately upon

our achievement of an average market capitalization of at least \$20.00 per share of Class A common stock for forty-five days out of any sixty day period on a split-adjusted basis; and (d) all unvested shares remaining on January 22, 2017.

- (13) The option vested as to 100% of the shares on the grant date.
- (14) The option vests as to (a) 25% of the shares immediately upon the first acceptance by the FDA of an NDA filed by us; (b) 25% of the shares upon the first commercial sale of linaclotide; (c) 25% of the shares upon the achievement of \$1 billion in global pharmaceutical product sales (including partnered or licensed product revenue); and (d) 25% of the shares upon acceptance by the FDA of a second NDA for a product from an internal or external development program (excluding supplemental NDAs for linaclotide, but including NDAs for linaclotide combination products). External development programs shall be pre-qualified for milestone.

## Potential Payments Upon Termination or Change of Control

# Change of Control Severance Benefit Plan

In May 2009, our compensation committee adopted our change of control plan that applies to all of our employees, including our named executive officers, and provides for certain payments and benefits in connection with or following a termination of employment associated with a change of control. Pursuant to our change of control plan, in the event of a "Covered Termination" (as defined in the change of control plan), our employees are entitled to receive the following from Ironwood or its successor:

- a lump-sum payment in an amount equal to six months of such employee's base salary at the time of termination;
- a lump-sum payment in an amount equal to such employee's target bonus for the year in which the termination occurred, prorated for the portion of the year during which the employee was employed;
- acceleration of all outstanding equity awards subject to time-based vesting as of the date of termination; and
- continuation of health and dental benefits for six months following termination.

We will require any successor to assume and agree to perform the change of control plan in the same manner and to the same extent that we would be required to perform it if no such succession or assignment had taken place. See "Executive Compensation—Compensation Discussion and Analysis—Change of Control Severance Benefit Plan" for a more detailed description of our change of control plan.

Receipt of any payments or benefits under the change of control plan at the time of termination will be conditioned on the employee executing a written release of Ironwood from any and all claims arising in connection with his or her employment.

#### Potential Payments Under Change of Control Severance Benefit Plan

The following table presents our estimate of the amount of severance benefits to which each of the named executive officers would be entitled under the change of control plan in the event a Covered Termination of each named executive officer occurred on December 31, 2009. There are currently no other agreements or arrangements pursuant to which the named executive officers would receive severance benefits including termination without cause, termination for cause, termination by the executive for good reason, death or disability.

| Name                 | Cash<br>Severance (\$) | <b>Bonus</b> (\$) <sup>(1)</sup> | Equity<br>Acceleration (\$) <sup>(2)</sup> | Continuation<br>of Health<br>Benefits (\$) | <b>Total</b> (\$) <sup>(3)</sup> |
|----------------------|------------------------|----------------------------------|--|--|----------------------------------|
| Peter M. Hecht, Ph.D | 50,000                 | 0                                | 1,833,535                                  | 10,154                                     | 1,893,689                        |
| Michael J. Higgins   | 132,500                | 0                                | 1,250,699                                  | 10,264                                     | 1,393,463                        |
| Mark G. Currie, Ph.D | 157,500                | 0                                | 1,780,094                                  | 9,778                                      | 1,947,372                        |
| Thomas A. McCourt    | 162,500                | 0                                | 1,154,000                                  | 10,264                                     | 1,326,764                        |

<sup>(1)</sup> There was no target bonus for 2009.

- (2) Reflects the in-the-money value of the unvested portion of such named executive officer's options that have time-based vesting provisions. The value is calculated by multiplying the amount (if any) by which \$11.25, our initial public offering price, exceeds the exercise price of the option by the number of shares subject to the accelerated portion of the option.
- (3) We will evaluate the following two alternative forms of payment and select the one that would maximize such executive's after-tax proceeds: (i) payment in full of the entire amount of the payments, or (ii) payment of only a part of the payments so that the executive receives the largest payment possible without the imposition of excise tax under Section 280G of the Code.

# **Director Compensation**

The following table sets forth information regarding the compensation earned by each of our directors, other than Dr. Hecht who does not receive compensation for his service as a director, during the fiscal year ended December 31, 2009.

| Name                                   | Stock Awards (\$) <sup>(1)(2)</sup> | Option Awards (\$) <sup>(1)</sup> | All Other Compensation (\$) | Total (\$) |
|--|-------------------------------------|-----------------------------------|-----------------------------|------------|
| Joseph C. Cook, Jr                     | 356,200                             | $21,739^{(3)}$                    | _                           | 377,939    |
| Marsha H. Fanucci                      | 330,192                             | _                                 | _                           | 330,192    |
| Stephen C. Knight, M.D. <sup>(4)</sup> | 219,200                             | _                                 | _                           | 219,200    |
| Bryan E. Roberts, Ph.D                 | 219,200                             | _                                 | _                           | 219,200    |
| Gina Bornino Miller                    | 356,200                             | _                                 | _                           | 356,200    |
| David E. Shaw                          | 356,200                             | _                                 | _                           | 356,200    |
| Christopher T. Walsh, Ph.D             | 356,200                             | $29,528^{(5)}$                    | $50,000^{(6)}$              | 435,728    |
| George H. Conrades                     | 219,200                             | _                                 | _                           | 219,200    |
| Terrance G. McGuire                    | 219,200                             | _                                 | _                           | 219,200    |
| David Ebersman                         | 277,759                             |                                   | _                           | 277,759    |

<sup>(1)</sup> Reflects the fair value of stock and stock option awards on the date of grant. The value is calculated in accordance with ASC 718. For a discussion of the assumptions used in the valuations, see Note 15 to our consolidated financial statements for the year ended December 31, 2009 included elsewhere in this Annual Report on Form 10-K. See also our discussion of share-based compensation under "Management's Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Policies and Estimates."

- (2) In the year ended December 31, 2009, we granted: (a) 65,000 restricted shares of our Class B common stock to each of Mr. Cook, Ms. Bornino Miller, Mr. Shaw and Dr. Walsh; (b) 40,000 restricted shares of our Class B common stock to each of Dr. Knight, Dr. Roberts, Mr. Conrades and Mr. McGuire; (c) 50,686 restricted shares of our Class B common stock to Mr. Ebersman, and (d) 44,863 restricted shares of our Class B common stock to Ms. Fanucci. See below for a discussion of these restricted stock award grants.
- (3) In October 2009, Mr. Cook received 5,000 options to purchase shares of our Class B common stock for his service as the chairman of our board that vested in full on the date of grant and was outstanding as of December 31, 2009. As of December 31, 2009, Mr. Cook has 40,000 outstanding options to purchase shares of Class B common stock which were granted prior to the fiscal year ended December 31, 2009 and remain exercisable as of December 31, 2009.
- (4) Dr. Knight served as a director during the fiscal year ended December 31, 2009. Dr. Knight resigned from our board of directors at the time of our initial public offering.
- (5) In February 2009, Mr. Walsh received 10,000 options to purchase shares of our Class B common stock for his service as chair of our Pharmaceutical Advisory Committee that vested in full on the date of grant and was outstanding as of December 31, 2009. For a discussion of the assumptions used in the valuations, see Note 15 to our consolidated financial statements for the year ended December 31, 2009 included elsewhere in this Annual Report on Form 10-K. As of December 31, 2009, Mr. Walsh has 93,000 outstanding options to purchase shares of Class B common stock which were granted prior to the fiscal year ended December 31, 2009 and remain exercisable as of December 31, 2009.
- (6) Represents compensation for service during the year ended December 31, 2009 as chair of our Pharmaceutical Advisory Committee.

In July 2009, our compensation committee recommended a new director compensation program. In accordance with our new director compensation program, during the year ended December 31, 2009, each non-employee member of our board of directors received restricted stock awards as compensation for serving on our board. No retainer, committee, chair or meeting fees were paid to directors in 2009, other than options to purchase 5,000 shares of our Class B common stock that were granted to Mr. Cook for his service as chairman of our board. For 2009 service, we issued 25,000 shares of restricted stock to each board member not currently affiliated with a venture capital firm (each of Mr. Cook, Ms. Bornino Miller, Mr. Shaw and Dr. Walsh), other than to Mr. Conrades who had received a prior director grant which continued to vest in 2009. Mr. Ebersman and Ms. Fanucci received pro-rated portions of the 25,000 shares based upon the date on which they became active board members in 2009. In addition, each board member received a restricted stock grant in the amount of 40,000 shares for future service to Ironwood during years 2010 through 2013. The forfeiture rights: (a) with respect to each of the awards for 40,000 shares, lapse in quarterly increments of 2,500 shares over the period starting March 31, 2010 and ending December 31, 2013, provided that the recipient is still one of our board members on such date, and (b) with respect to each of the awards for 25,000 shares, lapse for all 25,000 shares on December 31, 2009 provided that the recipient is still one of our board members on such date. Subject to certain limited exceptions, no director may transfer any of the shares of restricted stock while such person is a director of Ironwood.

Beginning in 2010, the chairperson of our board and each of the committee chairs will receive an additional \$10,000 annually, payable quarterly in unrestricted stock or cash at the individual director's election. Directors currently are, and will continue to be reimbursed for reasonable travel and other expenses incurred in connection with attending meetings of the board of directors and its committees. Non-employee directors are also eligible to participate in our existing incentive plans, and we anticipate that they will be eligible to participate in our future incentive plans.

We do not anticipate providing any additional compensation to our current directors, aside from the annual chair fees described above, until 2013, at which time the four-year restricted stock grants will be fully vested in recognition of service during that period. The board will consider compensation arrangements for any new directors who join the board in future periods.

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

The following table sets forth certain information with respect to the beneficial ownership of our common stock at March 15, 2010 for:

- each person whom we know beneficially owns more than five percent of our common stock;
- each of our directors;
- · each of our named executive officers; and
- all of our directors and executive officers as a group.

The number of shares beneficially owned by each stockholder is determined under rules issued by the SEC and includes voting or investment power with respect to securities. Under these rules, beneficial ownership includes any shares as to which the individual or entity has sole or shared voting power or investment power. Each of the stockholders listed has sole voting and investment power with respect to the shares beneficially owned by the stockholder unless noted otherwise, subject to community property laws where applicable.

The percentage of common stock beneficially owned by each person is based on 19,166,667 shares of Class A common stock and 78,291,122 shares of Class B common stock outstanding on March 15, 2010. Each share of Class B common stock is convertible at any time into one share of Class A common stock. Shares of common stock that may be acquired within 60 days following March 15, 2010 pursuant to the exercise of options are deemed to be outstanding for the purpose of computing the percentage ownership of such holder but are not deemed to be outstanding for computing the percentage ownership of any other person shown in the table. Beneficial ownership representing less than one percent is denoted with an "\*."

Unless otherwise indicated, the address for each of the stockholders in the table below is c/o Ironwood Pharmaceuticals, Inc., 320 Bent Street, Cambridge, Massachusetts 02141.

|   | S            |           |              |          |                      |
|---|--------------|-----------|--------------|----------|----------------------|
|   | Class A Comr | non Stock | Class B Comm | on Stock | % Total Voting       |
| Name of Beneficial Owner                                  | Shares       | %         | Shares       | %        | Power <sup>(1)</sup> |
| Officers and Directors                                    |              |           |              |          |                      |
| Peter M. Hecht <sup>(2)</sup>                             | 6,249        | *         | 4,354,082    | 5.50     | 4.43                 |
| Michael J. Higgins <sup>(3)</sup>                         | 4,249        | *         | 692,164      | *        | *                    |
| Thomas A. McCourt <sup>(4)</sup>                          | 999          | *         | 0            | *        | *                    |
| Mark G. Currie <sup>(5)</sup>                             | 4,499        | *         | 829,000      | 1.05     | *                    |
| Joseph C. Cook, Jr. (6)                                   | 0            | *         | 607,172      | *        | *                    |
| George H. Conrades <sup>(7)</sup>                         | 0            | *         | 1,429,687    | 1.83     | 1.47                 |
| David Ebersman  | 0            | *         | 71,519       | *        | *                    |
| Marsha H. Fanucci   | 22,000       | *         | 44,863       | *        | *                    |
| Terrance G. McGuire <sup>(8)</sup>                        | 0            | *         | 6,303,980    | 8.05     | 6.47                 |
| Gina Bornino Miller <sup>(9)</sup>                        | 0            | *         | 770,952      | *        | *                    |
| Bryan E. Roberts <sup>(10)</sup>                          | 0            | *         | 8,746,321    | 11.17    | 8.97                 |
| David E. Shaw <sup>(11)</sup>                             | 0            | *         | 457,085      | *        | *                    |
| Christopher T. Walsh <sup>(12)</sup>                      | 0            | *         | 358,026      | *        | *                    |
| All executive officers and directors as a                 |              |           |              |          |                      |
| group <sup>(13)</sup> (13 persons)                        | 37,996       | *         | 24,664,851   | 33.34    | 24.76                |
| 5% Security Holders                                       |              |           |              |          |                      |
| Entities associated with Morgan Stanley <sup>(14)</sup> . | 6,017,715    | 31.40     | 5,343,335    | 6.82     | 11.66                |
| Ridgeback Capital Investments L.P.(15)                    | 0            | *         | 10,389,262   | 13.27    | 10.66                |
| Entities associated with Venrock <sup>(10)</sup>          | 0            | *         | 8,731,321    | 11.15    | 8.96                 |
| Entities associated with Polaris Venture                  |              |           |              |          |                      |
| Partners <sup>(8)</sup>                                   | 0            | *         | 6,303,980    | 8.05     | 6.47                 |
|   |              |           |              |          |                      |

<sup>(1)</sup> Percentage total voting power represents voting power with respect to all shares of our Class A common stock and Class B common stock, as a single class, on matters in which holders of our Class B common stock are entitled to one vote per share. Each share of Class A common stock and each share of Class B common stock has one vote per share, except on the following matters (in which each share of Class A common stock has one vote per share and each share of Class B common stock has ten votes per share), if submitted to a vote of stockholders: (a) adoption of a merger or consolidation agreement involving Ironwood; (b) a sale of all or substantially all of Ironwood's assets; (c) a dissolution or liquidation of Ironwood; or (d) every matter, if and when any individual, entity or "group" (as such term is used in Regulation 13D of the Exchange Act) has, or has publicly disclosed (through a press release or a filing with the SEC) an intent to have, beneficial ownership of 30% or more of the number of outstanding shares of Class A common stock and Class B common stock, combined. Holders of shares of Class A common stock and Class B common stock will vote together as a single class on all matters (including the election of directors) submitted to a vote of stockholders, unless otherwise required by our certificate of incorporation or by law. The Class B common stock is convertible at any time by the holder into shares of Class A common stock on a share-for-share basis.

<sup>(2)</sup> Consists of 6,249 shares of Class A common stock and 854,331 shares of Class B common stock issuable to Dr. Hecht upon the exercise of options that are exercisable within 60 days following March 15, 2010.

- (3) Consists of 4,249 shares of Class A common stock and 542,164 shares of Class B common stock issuable to Mr. Higgins upon the exercise of options that are exercisable within 60 days following March 15, 2010.
- (4) Consists of 999 shares of Class A common stock issuable to Mr. McCourt upon the exercise of options that are exercisable within 60 days following March 15, 2010.
- (5) Consists of 4,499 shares of Class A common stock and 619,000 shares of Class B common stock issuable to Dr. Currie upon the exercise of options that are exercisable within 60 days following March 15, 2010.
- (6) Includes 86,025 shares of Class B common stock held by Farview Management Company, L.P. Also includes 411,147 shares of Class B common stock held by Mr. Cook and his wife, Judith E. Cook. Mr. Cook has shared voting and investment authority over these shares. Also includes 45,000 shares of Class B common stock issuable to Mr. Cook upon the exercise of options that are exercisable within 60 days following March 15, 2010.
- (7) Includes 254,152 shares of Class B common stock held by the Conrades Family, LLC, of which Mr. Conrades is a managing member. Also includes 823,755 shares of Class B common stock held by Longfellow Venture Partners I, LLC, of which Mr. Conrades is the sole member and the sole manager. Also includes 261,780 shares of Class B common stock held by Pelmea L.P., of which Mr. Conrades is a manager of the general partner.
- (8) Includes 40,000 shares of Class B common stock held by Bartlett Partners, LLC, 163,302 shares of Class B common stock held by Polaris Venture Partners Founders' Fund II, L.P. and 6,100,678 shares of Class B common stock held by Polaris Venture Partners II, L.P. Mr. McGuire is a manager of Bartlett Partners, LLC and a general partner of the Polaris funds, and has shared voting and investment authority over these shares.
- (9) Includes 720,952 shares of Class B common stock held by Millbor Family Trust U/T/D October 16, 2002, of which Ms. Bornino Miller is a co-trustee and a beneficiary. As co-trustee, Ms. Bornino Miller exercises shared voting and investment authority over these shares. Does not include 394,460 shares of common stock of Microbia, Inc., our majority-owned subsidiary, issuable to Ms. Bornino Miller upon the exercise of options that are exercisable within 60 days following March 15, 2010.
- (10) Includes 2,559,605 shares of Class B common stock held by Venrock Associates, 3,683,329 shares of Class B common stock held by Venrock Entrepreneurs Fund, L.P., 2,017,021 shares of Class B common stock held by Venrock Healthcare Capital Partners, LP, 382,979 shares of Class B common stock held by VHCP Co-Investment Holdings, LLC and 40,000 shares of Class B common stock held by VR Management, LLC. Dr. Roberts is a general partner of Venrock Associates and Venrock Associates II, L.P. and a member of the general partners of Venrock Entrepreneurs Fund, L.P. and Venrock Healthcare Capital Partners, LP, and a member of the manager of VHCP Co-Investment Holdings, LLC and VR Management, LLC, and as such, he may be deemed to have voting and investment power with respect to these shares. Dr. Roberts disclaims beneficial ownership with respect to these shares except to the extent of his indirect pecuniary interest therein.
- (11) Includes 80,000 shares of Class B common stock held by Black Point Group LP. Mr. Shaw is a managing partner of Black Point Group LP and has shared voting and investment authority over these shares.
- (12) Includes 97,000 shares of Class B common stock issuable to Dr. Walsh upon the exercise of options that are exercisable within 60 days following March 15, 2010.

- (13) Includes 15,996 shares of Class A common stock and 2,157,495 shares of Class B common stock issuable upon the exercise of options that are exercisable within 60 days following March 15, 2010.
- (14) Based upon the information provided in the Schedule 13G filed on March 10, 2010 jointly by Morgan Stanley and Morgan Stanley Investment Management Inc. ("MIMS"). Morgan Stanley beneficially owns 11,361,050 shares of our Class A common stock and Class B common stock, combined, has sole voting power with respect to 9,973,299 of such shares and sole dispositive power with respect to all 11,361,050 shares. MIMS beneficially owns 9,370,242 shares of our Class A common stock and Class B common stock, combined, has sole voting power with respect to 7,982,491 of such shares and sole dispositive power with respect to all 9,370,242 shares. The securities being reported upon by Morgan Stanley as a parent holding company are owned, or may be deemed to be beneficially owned, by MIMS, an investment adviser in accordance with Rule 13d-1(b)(1)(ii)(E) of the Exchange Act. MIMS is a wholly-owned subsidiary of Morgan Stanley. The address of Morgan Stanley is 1585 Broadway, New York, NY 10036. The address of MIMS is 522 Fifth Avenue, New York, NY 10036.
- (15) The address for this entity is c/o Ridgeback Capital Management LLC, 430 Park Avenue, 12th Floor, New York, NY, 10022.

#### Securities Authorized For Issuance Under Equity Compensation Plans

The table below sets forth information with regard to securities authorized for issuance under our equity compensation plans as of December 31, 2009. As of December 31, 2009, we had three equity compensation plans, each of which was approved by our stockholders: our 1998 Amended and Restated Stock Option Plan, or our 1998 Plan; our Amended and Restated 2002 Stock Incentive Plan, or our 2002 Plan; and our 2005 Plan.

Number of securities

| Plan Category  | Number of securities to<br>be issued upon exercise<br>of outstanding options,<br>warrants and rights | Weighted-average<br>exercise price of<br>outstanding options,<br>warrants, and rights | remaining available for<br>future issuance under<br>equity compensation<br>plans (excluding<br>securities reflected in<br>column (a)) |
|--|--|---|---|
|  | (a)  | (b)   | (c)   |
| Equity compensation plans approved by security holders | 13,691,579   | \$2.45  | 2,255,516   |
| Equity compensation plans not approved                 |  |   |   |
| by security holders                                    |  | _   |   |
| Total  | <u>13,691,579</u>  |   | <u>2,255,516</u>  |

Awards issuable under our 1998 Plan consist of incentive stock options, nonstatutory stock options, stock bonuses and rights to acquire restricted stock. Awards issuable under our 2002 Plan consist of incentive stock options, nonstatutory stock options, restricted stock and other stock-based awards having terms and conditions set by our Board or a committee appointed by our board of directors. Awards issuable under our 2005 Plan consist of incentive stock options, nonstatutory stock options, restricted stock, restricted stock units and other stock-based awards having terms and conditions set by our Board or a committee appointed by our board of directors.

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

Since January 1, 2009, there has not been, nor is there currently proposed, any transaction or series of similar transactions to which we were or are a party in which the amount involved exceeded or exceeds \$120,000 and in which any of our directors, executive officers, holders of more than 5% of any class of our voting securities, or any member of the immediate family of any of the foregoing persons, had or will have a direct or indirect material interest, other than compensation arrangements with directors and executive officers, which are described where required under the captions "Management" and "Executive Compensation" appearing elsewhere in this Annual Report on Form 10-K, and the transactions described below.

#### **Stock Issuances and Related Matters**

On August 17, 2009, we issued 20,833 shares of our Series H convertible preferred stock at a price of \$12.00 per share to David Ebersman, one of our directors, for an aggregate purchase price of \$249,996. Upon the completion of our initial public offering, these shares converted into 20,833 shares of our Class B common stock.

On February 2, 2010, Marsha H. Fanucci, one of our directors, purchased 22,000 shares of our Class A common stock through the directed share program of our initial public offering at the initial public offering price of \$11.25 per share, for an aggregate purchase price of \$247,500. After deducting underwriting discounts and commissions, proceeds to us from such purchase were \$238,955.

On February 2, 2010, entities associated with Morgan Stanley purchased 5,666,551 shares of our Class A common stock through the directed share program of our initial public offering at the initial public offering price of \$11.25 per share, for an aggregate purchase price of \$63,748,699. After deducting underwriting discounts and commissions, proceeds to us from such purchase were \$61,547,775.

## **Registration Rights**

Each of our directors and executive officers (and certain of their family members), as well as Ridgeback Capital Investments L.P., Venrock, Polaris Venture Partners and Morgan Stanley, have registration rights with respect to certain shares of capital stock that they hold beginning on or about August 2, 2010. The holders of approximately 70,170,477 shares of our Class B common stock are entitled to rights with respect to the registration under the Securities Act of shares of Class A common stock into which their shares of Class B common stock converts. These registration rights are contained in our eighth amended and restated investors' rights agreement and are described below. The registration rights under the investors' rights agreement will expire on or about February 2, 2015, or, with respect to an individual holder, when such holder holds less than 1% of the number of outstanding shares of Class B common stock and is able to sell all of its shares pursuant to Rule 144 under the Securities Act in any 90 day period.

## **Demand Registration Rights**

At any time following August 1, 2010, the holders of shares of common stock having demand registration rights under the investors' rights agreement have the right to require that we register their shares of Class A common stock into which their shares of Class B common stock converts, provided such registration relates to not less than 20% in aggregate of our then outstanding shares of Class B common stock having demand registration rights and the anticipated aggregate offering price to the public is at least \$5,000,000. In response to these demand registration rights, we are only obligated to effect two registrations for each series of our outstanding preferred stock that were converted into Class B common stock upon the completion of our initial public offering. We may postpone the filing of a registration statement for up to 90 days once in any 12-month period if our board of directors

determines in good faith that the filing would be seriously detrimental to our stockholders or us. The underwriters of any underwritten offering have the right to limit the number of shares to be included in a registration statement filed in response to the exercise of these demand registration rights. We must pay all expenses, except for underwriters' discounts and commissions, incurred in connection with the exercise of these demand registration rights.

## Piggyback Registration Rights

If we register any securities for public sale, the stockholders with piggyback registration rights under the investors' rights agreement have the right to include their shares in the registration, subject to specified exceptions. The underwriters of any underwritten offering have the right to limit the number of shares registered by these stockholders due to marketing reasons. We must pay all expenses, except for underwriters' discounts and commissions, incurred in connection with the exercise of these piggyback registration rights.

#### S-3 Registration Rights

If we are eligible to file a registration statement on Form S-3, the stockholders with S-3 registration rights under the investors' rights agreement can request that we register their shares, provided that the total price of the shares of common stock offered to the public is at least \$500,000. These S-3 registration rights are wholly distinct from the demand registration rights and piggyback registration rights described above. A holder of S-3 registration rights may not require us to file a registration statement on Form S-3 if we have already effected two registrations on Form S-3 at the request of such holder in the last 12-month period. We may postpone the filing of a Form S-3 registration statement for up to 90 days once in any 12-month period if our board of directors determines in good faith that the filing would be seriously detrimental to our stockholders or us. The holders of S-3 registration rights must pay all expenses associated with any registrations on Form S-3 after the first six registrations on Form S-3.

#### **Indemnification Agreements**

We have entered into indemnification agreements with each of our current directors and certain of our officers. These agreements require us to indemnify these individuals to the fullest extent permitted under Delaware law against liabilities that may arise by reason of their service to us, and to advance expenses incurred as a result of any proceeding against them as to which they could be indemnified. We intend to enter into indemnification agreements with our future directors and executive officers.

#### **Procedures for Related Party Transactions**

Under our code of business conduct and ethics, our employees, officers and directors are discouraged from entering into any transaction that may cause a conflict of interest for us. In addition, they must report any potential conflict of interest, including related party transactions, to the governance and nominating committee or the general counsel. Pursuant to its charter, our audit committee must approve any related party transactions, including those transactions involving our directors. In approving or rejecting such proposed transactions, the audit committee considers the relevant facts and circumstances available and deemed relevant to the audit committee, including the material terms of the transactions, risks, benefits, costs, availability of other comparable services or products and, if applicable, the impact on a director's independence. Our audit committee will approve only those transactions that, in light of known circumstances, are in, or are not inconsistent with, our best interests, as our audit committee determines in the good faith exercise of its discretion. A copy of our code of business conduct and ethics and our governance and nominating committee charter and audit committee charter may be found at our corporate website http://www.ironwoodpharma.com. The content on our website is not incorporated by reference into this Annual Report on Form 10-K.

#### **Director Independence**

Under Rules 5605 and 5615 of the NASDAQ Marketplace Rules, a majority of a listed company's board of directors must be comprised of independent directors within one year of listing. In addition, NASDAQ Marketplace Rules require that, subject to specified exceptions, each member of a listed company's audit, compensation and governance and nominating committees be independent and that audit committee members also satisfy independence criteria set forth in Rule 10A-3 under the Exchange Act. Under Rule 5605(a)(2) of the NASDAQ Marketplace Rules, a director will only qualify as an "independent director" if, in the opinion of that company's board of directors, that person does not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director.

Based upon information requested from and provided by each director concerning their background, employment and affiliations, including family relationships, our board of directors has determined that none of Messrs. Cook, Conrades, Ebersman, McGuire and Shaw, Mss. Bornino Miller and Fanucci, and Drs. Roberts and Walsh, representing nine of our ten directors, has a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director and that each of these directors is "independent" as that term is defined under Rule 5605(a)(2) of the NASDAQ Marketplace Rules. Our board of directors also determined that Messrs. Cook and Conrades and Ms. Fanucci, who comprise our audit committee; Messrs. Conrades, Cook and McGuire and Ms. Bornino Miller, who comprise our governance and nominating committee; and Messrs. Ebersman and Shaw and Drs. Roberts and Walsh, who comprise our compensation and HR committee, all satisfy the independence standards for such committees established by Rule 10A-3 under the Exchange Act, the SEC and the NASDAQ Marketplace Rules, as applicable. In making such determination, the board of directors considered the relationships that each such non-employee director has with our company and all other facts and circumstances the board of directors deemed relevant in determining their independence.

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

The following table presents aggregate fees for professional audit services rendered by Ernst & Young LLP for the years ended December 31, 2009 and 2008 for the audits of our annual financial statements, and fees billed for other services rendered by Ernst & Young LLP during those periods.

|               | 2009      | 2008      |
|---------------|-----------|-----------|
| Audit         | \$837,476 | \$173,404 |
| Audit related | _         |           |
| Tax           | 53,000    | 49,250    |
| All other     | _         | _         |
|               | \$890,476 | \$222,654 |

Audit fees for 2009 and 2008 were for professional services rendered for the audits of our financial statements, including accounting consultation, reviews of quarterly financial statements, and for services associated with our initial public offering, which closed on February 8, 2010.

Tax fees for 2009 and 2008 were for professional services for the preparation of our federal and state tax returns and tax advice.

Ernst & Young LLP did not provide any other services to us in 2009 or 2008.

# **Audit Committee Pre-Approval Process**

The Audit Committee must pre-approve all audit and permitted non-audit services for which the Company's independent registered public accounting firm may be engaged. Of the services described above performed by Ernst & Young LLP in fiscal 2009, all were pre-approved by the Audit Committee and in 2009 no fees were paid under a *de minimus* exception that waives pre-approval for certain non-audit services.

# PART IV

# Item 15. Exhibits and Financial Statement Schedules

- (a) List of documents filed as part of this report
  - (1) Consolidated Financial Statements listed under Part II, Item 8 and included herein by reference.
  - (2) Consolidated Financial Statement Schedules

No schedules are submitted because they are not applicable, not required or because the information is included in the Consolidated Financial Statements as Notes to Consolidated Financial Statements.

(3) Exhibits

|          |   | Incorporated by reference herein   |                   |
|----------|---|--|-------------------|
| Number   | Description   | Form   | Date              |
| 3.1*     | Eleventh Amended and Restated<br>Certificate of Incorporation   |  |                   |
| 3.2*     | Fifth Amended and Restated<br>Bylaws  |  |                   |
| 4.1      | Specimen Class A common stock certificate   | Registration Statement on<br>Form S-1, as amended<br>(File No. 333-163275) | January 20, 2010  |
| 4.2      | Eighth Amended and Restated<br>Investors' Rights Agreement,<br>dated as of September 1, 2009, by<br>and among Ironwood<br>Pharmaceuticals, Inc., the<br>Founders and the Investors<br>named therein | Registration Statement on Form S-1, as amended (File No. 333-163275)       | November 20, 2009 |
| 10.1#    | 1998 Amended and Restated<br>Stock Option Plan and form<br>agreements thereunder  | Registration Statement on<br>Form S-1, as amended<br>(File No. 333-163275) | December 23, 2009 |
| 10.2#    | Amended and Restated 2002<br>Stock Incentive Plan and form<br>agreements thereunder   | Registration Statement on<br>Form S-1, as amended<br>(File No. 333-163275) | December 23, 2009 |
| 10.3#    | Amended and Restated 2005<br>Stock Incentive Plan and form<br>agreements thereunder   | Registration Statement on<br>Form S-1, as amended<br>(File No. 333-163275) | January 29, 2010  |
| 10.4#    | 2010 Employee, Director and<br>Consultant Equity Incentive Plan   | Registration Statement on<br>Form S-1, as amended<br>(File No. 333-163275) | January 20, 2010  |
| 10.4.1#* | Form agreement under the 2010<br>Employee, Director and<br>Consultant Equity Incentive Plan   |  |                   |
| 10.5#    | 2010 Employee Stock Purchase<br>Plan  | Registration Statement on Form S-8 (File No. 333-165230)                   | March 5, 2010     |

|          |   | Incorporated by reference herein   |                   |
|----------|---|--|-------------------|
| Number   | Description   | Form   | Date              |
| 10.6#    | Change of Control Severance<br>Benefit Plan   | Registration Statement on<br>Form S-1, as amended<br>(File No. 333-163275) | December 23, 2009 |
| 10.7#    | Director Compensation Plan  | Registration Statement on<br>Form S-1, as amended<br>(File No. 333-163275) | December 23, 2009 |
| 10.8#    | Consulting Agreement, dated as of November 30, 2009, by and between Christopher Walsh and Ironwood Pharmaceuticals, Inc.  | Registration Statement on<br>Form S-1, as amended<br>(File No. 333-163275) | December 23, 2009 |
| 10.9+    | Collaboration Agreement, dated<br>as of September 12, 2007, as<br>amended on November 3, 2009,<br>by and between Forest<br>Laboratories, Inc. and Ironwood<br>Pharmaceuticals, Inc. | Registration Statement on Form S-1, as amended (File No. 333-163275)       | February 2, 2010  |
| 10.10+   | License Agreement, dated as of<br>April 30, 2009, by and between<br>Almirall, S.A. and Ironwood<br>Pharmaceuticals, Inc.  | Registration Statement on<br>Form S-1, as amended<br>(File No. 333-163275) | February 2, 2010  |
| 10.11+   | License Agreement, dated as of<br>November 10, 2009, by and<br>among Astellas Pharma, Inc. and<br>Ironwood Pharmaceuticals, Inc.  | Registration Statement on<br>Form S-1, as amended<br>(File No. 333-163275) | February 2, 2010  |
| 10.12#   | Form of Indemnification Agreement with directors and officers   | Registration Statement on<br>Form S-1, as amended<br>(File No. 333-163275) | December 23, 2009 |
| 10.13    | Terms of Amended and Restated<br>Lease for facilities at<br>320 Bent St., Cambridge, MA,<br>between registrant and<br>BMR-Rogers Street LLC   | Registration Statement on<br>Form S-1, as amended<br>(File No. 333-163275) | December 23, 2009 |
| 10.14    | Lease for facilities at 301 Binney St., Cambridge, MA, dated as of January 12, 2007, as amended on April 9, 2009, by and between registrant and BMR-Rogers Street LLC               | Registration Statement on Form S-1, as amended (File No. 333-163275)       | December 23, 2009 |
| 10.14.1* | Second Amendment to Lease for facilities at 301 Binney St.,<br>Cambridge, MA, dated as of<br>February 9, 2010, by and between<br>registrant and BMR-Rogers<br>Street LLC            |  |                   |

|        |   | Incorporated by reference herein   |                   |  |
|--------|---|--|-------------------|--|
| Number | Description   | Form   | Date              |  |
| 10.15  | Master Security Agreement,<br>dated as of January 16, 2009, by<br>and between Ironwood<br>Pharmaceuticals, Inc. and Oxford<br>Finance Corporation | Registration Statement on Form S-1, as amended (File No. 333-163275)       | December 23, 2009 |  |
| 21.1   | Subsidiaries of Ironwood Pharmaceuticals, Inc.  | Registration Statement on<br>Form S-1, as amended<br>(File No. 333-163275) | November 20, 2009 |  |
| 23.1*  | Consent of Independent<br>Registered Public Accounting<br>Firm  |  |                   |  |
| 31.1*  | Certification of Chief Executive<br>Officer pursuant to Rules 13a-14<br>or 15d-14 of the Exchange Act   |  |                   |  |
| 31.2*  | Certification of Chief Financial<br>Officer pursuant to Rules 13a-14<br>or 15d-14 of the Exchange Act   |  |                   |  |
| 32.1‡  | Certification of Chief Executive<br>Officer pursuant to<br>Rules 13a-14(b) or 15d-14(b) of<br>the Exchange Act and 18 U.S.C.<br>Section 1350      |  |                   |  |
| 32.2‡  | Certification of Chief Financial<br>Officer pursuant to<br>Rules 13a-14(b) or 15d-14(b) of<br>the Exchange Act and 18 U.S.C.<br>Section 1350      |  |                   |  |

<sup>\*</sup> Filed herewith.

- + Confidential treatment requested under 17 C.F.R. §§200.80(b)(4) and 230.406. The confidential portions of this exhibit have been omitted and are marked accordingly. The confidential portions have been filed separately with the SEC pursuant to the confidential treatment request.
- # Management contract or compensatory plan, contract, or agreement.
  - (b) Exhibits.

The exhibits required by this Item are listed under Item 15(a)(3).

(c) Financial Statement Schedules.

The financial statement schedules required by this Item are listed under Item 15(a)(2).

<sup>‡</sup> Furnished herewith.

# **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, in the City of Cambridge, Commonwealth of Massachusetts, on the 30th day of March 2010.

# Ironwood Pharmaceuticals, Inc.

| By: | /s/ Peter M. Hecht      |
|-----|-------------------------|
|     | Peter M. Hecht          |
|     | Chief Executive Officer |

Pursuant to the requirements of Section 13 or 15(d) 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 date indicated.

| Signature                                    | Title  | Date           |  |
|--|--|----------------|--|
| /s/ PETER M. HECHT Peter M. Hecht            | Chief Executive Officer and Director (Principal Executive Officer)   | March 30, 2010 |  |
| /s/ MICHAEL J. HIGGINS  Michael J. Higgins   | Chief Operating Officer & Chief Financial Officer (Principal Financial Officer & Principal Accounting Officer) | March 30, 2010 |  |
| /s/ Joseph C. Cook, Jr.  Joseph C. Cook, Jr. | Chairman of the Board  | March 30, 2010 |  |
| /s/ GEORGE CONRADES George Conrades          | Director   | March 30, 2010 |  |
| /s/ DAVID EBERSMAN  David Ebersman           | Director   | March 30, 2010 |  |
| /s/ MARSHA H. FANUCCI Marsha H. Fanucci      | Director   | March 30, 2010 |  |
| /s/ TERRANCE G. McGuire Terrance G. McGuire  | Director   | March 30, 2010 |  |

| Signature                                     |          | Title | Date           |
|---|----------|-------|----------------|
| /s/ GINA BORNINO MILLER Gina Bornino Miller   | Director |       | March 30, 2010 |
| /s/ BRYAN E. ROBERTS Bryan E. Roberts         | Director |       | March 30, 2010 |
| /s/ DAVID E. SHAW David E. Shaw               | Director |       | March 30, 2010 |
| /s/ CHRISTOPHER T. WALSH Christopher T. Walsh | Director |       | March 30, 2010 |

# Index to Financial Statements of Ironwood Pharmaceuticals, Inc.

| Report of Independent Registered Public Accounting Firm   |   | Page |
|---|---|------|
| Consolidated Statements of Operations for the Years Ended December 31, 2009, 2008 and 2007. F-4 Consolidated Statements of Convertible Preferred Stock and Stockholders' Equity (Deficit) for the Years Ended December 31, 2009, 2008 and 2007. F-5 Consolidated Statements of Cash Flows for the Years Ended December 31, 2009, 2008 and 2007. F-6 | Report of Independent Registered Public Accounting Firm                                       | F-2  |
| Consolidated Statements of Convertible Preferred Stock and Stockholders' Equity (Deficit) for the Years Ended December 31, 2009, 2008 and 2007  | Consolidated Balance Sheets as of December 31, 2009 and 2008                                  | F-3  |
| the Years Ended December 31, 2009, 2008 and 2007  | Consolidated Statements of Operations for the Years Ended December 31, 2009, 2008 and 2007.   | F-4  |
| Consolidated Statements of Cash Flows for the Years Ended December 31, 2009, 2008 and 2007 . F-6  | Consolidated Statements of Convertible Preferred Stock and Stockholders' Equity (Deficit) for |      |
| , ,   | the Years Ended December 31, 2009, 2008 and 2007  | F-5  |
| Notes to Consolidated Financial Statements  | Consolidated Statements of Cash Flows for the Years Ended December 31, 2009, 2008 and 2007.   | F-6  |
|   | Notes to Consolidated Financial Statements  | F-7  |

# REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of Ironwood Pharmaceuticals, Inc.

We have audited the accompanying consolidated balance sheets of Ironwood Pharmaceuticals, Inc. as of December 31, 2009 and 2008, and the related consolidated statements of operations, convertible preferred stock and stockholders' equity (deficit), and cash flows for each of the three years in the period ended December 31, 2009. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. We were not engaged to perform an audit of the Company's internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also 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.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Ironwood Pharmaceuticals, Inc. at December 31, 2009 and 2008, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2009, in conformity with U.S. generally accepted accounting principles.

As discussed in Note 2 to the consolidated financial statements, effective January 1, 2009, the Company adopted FASB Accounting Standards Codification 810-10-65, *Transition Related to FASB Statement No. 160, Noncontrolling Interests in Consolidated Financial Statements—an amendment of ARB No. 51.* 

/s/ Ernst & Young LLP

Boston, Massachusetts March 30, 2010

# **Consolidated Balance Sheets**

# (In thousands, except share and per share amounts)

|   | Decem           | ber 31,         |
|---|-----------------|-----------------|
|   | 2009            | 2008            |
| Assets  |                 |                 |
| Current assets:   |                 |                 |
| Cash and cash equivalents   | \$ 123,145      | \$ 67,722       |
| Available-for-sale securities   |                 | 22,045          |
| Accounts receivable   | 12<br>5 222     | 4 765           |
| Related party accounts receivable, net  | 5,222<br>3,069  | 4,765<br>2,498  |
| Prepaid expenses and other assets   | 3,009           | 2,498<br>8,700  |
| -   | 121 440         |                 |
| Total current assets  | 131,448         | 105,734         |
| Restricted cash   | 8,431<br>22,551 | 7,968<br>24,596 |
| Other assets  | 22,331          | 24,390<br>73    |
|   |                 |                 |
| Total assets  | \$ 162,451      | \$ 138,371      |
| Liabilities and stockholders' equity (deficit)  |                 |                 |
| Current liabilities:  | Φ 4044          | ф. 2.72.4       |
| Accounts payable  | \$ 4,944        | \$ 3,734        |
| Accrued research and development costs  | 12,401          | 9,653           |
| Accrued expenses  | 4,899<br>1,310  | 4,341<br>943    |
| Current portion of capital lease obligations  | 1,310           | 117             |
| Current portion of deferred rent  | 180             | 166             |
| Current portion of deferred revenue   | 32,560          | 17,846          |
| Total current liabilities   | 56,437          | 36,800          |
| Long-term debt, net of current portion  | 1,764           | 872             |
| Capital lease obligations, net of current portion   | 112             | 189             |
| Deferred rent, net of current portion   | 10,486          | 9,313           |
| Deferred revenue, net of current portion  | 93,642          | 48,208          |
| Commitments and contingencies (Note 11 and Note 12)                                       |                 |                 |
| Convertible preferred stock, \$0.001 par value, 74,942,226 shares authorized, 69,904,843  |                 |                 |
| and, 67,118,858 shares issued and outstanding at December 31, 2009 and 2008,              |                 |                 |
| respectively; liquidation value of \$415,237 and \$352,255 at December 31, 2009 and 2008, | 200.250         | 272 400         |
| respectively (Note 13)  | 298,350         | 273,400         |
| Class A common stock, \$0.001 par value, 98,530,700 shares authorized, no shares issued   |                 |                 |
| and outstanding at December 31, 2009 and 2008   | _               |                 |
| Class B common stock, \$0.001 par value, 98,530,700 shares authorized, 7,854,602 and      |                 |                 |
| 7,083,178 shares issued and outstanding at December 31, 2009 and 2008, respectively.      | 8               | 7               |
| Additional paid-in capital  | 12,999          | 7,594           |
| Accumulated deficit   | (314,559)       | (243,374)       |
| Accumulated other comprehensive income  |                 | 23              |
| Total Ironwood Pharmaceuticals, Inc. stockholders' equity (deficit)                       | (301,552)       | (235,750)       |
| Noncontrolling interest   | 3,212           | 5,339           |
| Total stockholders' equity (deficit)  | (298,340)       | (230,411)       |
| Total liabilities and stockholders' equity (deficit)                                      | \$ 162,451      | \$ 138,371      |
|   |                 |                 |

# **Consolidated Statements of Operations**

# (In thousands, except share and per share amounts)

|  | Years Ended December 31, |                           |    |                         | ι, |                       |
|--|--------------------------|---------------------------|----|-------------------------|----|-----------------------|
|  |                          | 2009                      |    | 2008                    |    | 2007                  |
| Revenue: Collaborative arrangements  | \$                       | 34,321<br>1,781           | \$ | 18,383<br>3,833         | \$ | 4,608<br>5,856        |
| Total revenue  |                          | 36,102                    |    | 22,216                  |    | 10,464                |
| Research and development   |                          | 84,892<br>23,980<br>1,207 |    | 59,809<br>18,328<br>—   |    | 57,246<br>10,833      |
| Total operating expenses   |                          | 110,079                   |    | 78,137                  |    | 68,079                |
| Loss from operations   |                          | (73,977)                  |    | (55,921)                |    | (57,615)              |
| Interest expense   |                          | (474)<br>243<br>600       |    | (334)<br>2,124<br>(900) |    | (263)<br>4,118<br>600 |
| Other income, net  |                          | 369                       |    | 890                     |    | 4,455                 |
| Loss before income tax benefit   |                          | (73,608)<br>(296)         |    | (55,031)                |    | (53,160)              |
| Net loss   |                          | (73,312)<br>2,127         |    | (55,031)<br>1,157       |    | (53,160)<br>408       |
| Net loss attributable to Ironwood Pharmaceuticals, Inc   | \$                       | (71,185)                  | \$ | (53,874)                | \$ | (52,752)              |
| Net loss per share attributable to Ironwood Pharmaceuticals, Inc.—basic and diluted  | \$                       | (10.00)                   | \$ | (7.82)                  | \$ | (7.91)                |
| Weighted average number of common shares used in net loss per share attributable to Ironwood Pharmaceuticals, Inc.—basic and diluted | 7                        | 7,116,774                 | 6  | 5,889,817               | 6  | 5,666,601             |

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

# (In thousands, except share amounts)

|   | Convertible<br>preferred stock<br>(Note 13) |           | preferred stock<br>(Note 13) |           | Class B common stock |                      | Additional<br>paid-in | Accumulated | Accumulated other comprehensive | Noncontrolling | Total<br>stockholders'<br>equity |
|---|---|-----------|------------------------------|-----------|----------------------|----------------------|-----------------------|-------------|---------------------------------|----------------|----------------------------------|
|   | Shares                                      | Amount    | Shares                       | Amount    | capital              | deficit              | income (loss)         | interest    | (deficit)                       |                |                                  |
| Balance at December 31, 2006  | 54,977,272<br>—                             | \$173,851 | 6,879,517                    | \$7       | 3,420                | \$(136,562)<br>(186) | \$ <u>1</u>           | \$ 6,903    | \$(126,231)<br>(186)            |                |                                  |
| Issuance of shares upon exercise of stock options   |   | _         | 69,213                       | _         | 47                   | (100)                | _                     | _           | 47                              |                |                                  |
| Issuance of Series F Convertible preferred stock  | 8,000,000                                   | 49,951    | _                            | _         | _                    | _                    | _                     | _           | _                               |                |                                  |
| Share-based compensation expense related to issuance of stock options to non-employees Share-based compensation expense related to issuance of stock options to employees | _   | _         | _                            | _         | 59                   | _                    | _                     | _           | 59                              |                |                                  |
| Comprehensive income (loss):  | _   | _         | _                            | _         | 1,095                | _                    | _                     | _           | 1,095                           |                |                                  |
| Unrealized gain on short-term investments   | _   | _         | _                            | _         | _                    | _                    | 2                     | _           | 2                               |                |                                  |
| Net loss  | _   | _         | _                            | _         | _                    | (52,752)             | _                     | (408)       | (53,160)                        |                |                                  |
| Total comprehensive loss  |   |           |                              |           |                      |                      |                       |             | (53,158)                        |                |                                  |
| Balance at December 31, 2007  | 62,977,272                                  | 223,802   | 6,948,730                    | 7         | 4,621                | (189,500)            | 3                     | 6,495       | (178,374)                       |                |                                  |
| Issuance of shares upon exercise of stock options   | · · · —                                     | _         | 129,448                      | _         | 179                  | _                    | _                     |             | 179                             |                |                                  |
| Proceeds from sale of noncontrolling interest in subsidiary   |   |           | _                            | _         | _                    | _                    | _                     | 1           | 1                               |                |                                  |
| Issuance of Series H Convertible preferred stock  |   | 49,598    | _                            | _         | 305                  | _                    | _                     | _           | 305                             |                |                                  |
| Issuance of stock award   |   | _         | 5,000                        |           | 25                   |                      | _                     | _           | 25                              |                |                                  |
| Share-based compensation expense related to issuance of stock options to employees Comprehensive income (loss):   | _   | _         | _                            | _         | 2,464                | _                    | _                     | _           | 2,464                           |                |                                  |
| Unrealized gain on short-term investments   |   | _         | _                            | _         | _                    |                      | 20                    |             | 20                              |                |                                  |
| Net loss  |   | _         | _                            | _         | _                    | (53,874)             | _                     | (1,157)     | (55,031)                        |                |                                  |
| Total comprehensive loss  |   |           |                              | _         |                      |                      |                       |             | (55,011)                        |                |                                  |
| Balance at December 31, 2008  | 67,118,858                                  | 273,400   | 7,083,178                    | 7         | 7,594                | (243,374)            | 23                    | 5,339       | (230,411)                       |                |                                  |
| Issuance of shares upon exercise of stock options   | _   | _         | 255,875                      |           | 272                  | _                    | _                     | _           | 272<br>1                        |                |                                  |
| Issuance of restricted stock awards   | 2,083,333                                   | 25,000    | 515,549                      | 1         | _                    | _                    | _                     | _           |                                 |                |                                  |
| Settlement of forward purchase contract in connection with issuance of Series G Convertible   | 2,000,000                                   | 25,000    |                              |           |                      |                      |                       |             |                                 |                |                                  |
| preferred stock   |   | (8,800)   | _                            | _         | _                    | _                    | _                     | _           | _                               |                |                                  |
| Issuance of Series H Convertible preferred stock  | 20,833                                      | 250       | _                            | _         | _                    | _                    | _                     | _           | _                               |                |                                  |
| Issuance of Series I Convertible preferred stock  | 681,819                                     | 15,000    |                              | _         | _                    | _                    | _                     | _           | _                               |                |                                  |
| preferred stock   | _   | (6,500)   | _                            | _         | _                    | _                    | _                     | _           | _                               |                |                                  |
| Share-based compensation expense related to issuance of stock options to non-employees  | _   | · —       | _                            | _         | 346                  | _                    | _                     | _           | 346                             |                |                                  |
| Share-based compensation expense related to issuance of stock options to employees  | _   | _         | _                            | _         | 4,898                | _                    | _                     | _           | 4,898                           |                |                                  |
| Restricted shares subject to repurchase   | _   | _         | _                            | _         | (111)                | _                    | (22)                  | _           | (111)                           |                |                                  |
| Unrealized loss on short-term investments  Net loss   |   | _         |                              | _         | _                    | (71,185)             | (23)                  | (2,127)     | (23)<br>(73,312)                |                |                                  |
| Total comprehensive loss  |   |           |                              | _         |                      |                      |                       | (2,127)     | (73,335)                        |                |                                  |
| •   |   | ¢200.250  | 7.054.602                    | φo        | ¢12.000              | 0(214.550)           | ф                     | ¢ 2.212     |                                 |                |                                  |
| Balance at December 31, 2009  | 69,904,843                                  | \$298,33U | 7,854,602                    | \$8<br>== | \$12,999             | \$(314,559)<br>===== | <u>\$ —</u>           | \$ 3,212    | \$(298,340)<br>====             |                |                                  |

# Ironwood Pharmaceuticals, Inc. Consolidated Statements of Cash Flows (In thousands)

|  | Years E                                 | per 31,         |   |
|--|---|-----------------|---|
|  | 2009                                    | 2008            | 2007                                    |
| Cash flows from operating activities:                                      |   |                 |   |
| Net loss   | \$(73,312)                              | \$(55,031)      | \$(53,160)                              |
| Depreciation and amortization  | 5,250                                   | 2,849           | 1,731                                   |
| Loss (gain) on disposal of property and equipment                          | 80                                      | (1)             | (1)                                     |
| Impairment loss on long-lived assets                                       | 890                                     |                 | _                                       |
| Remeasurement of forward purchase contracts                                | (600)                                   | 900             | (600)                                   |
| Share-based compensation expense   | 5,244                                   | 2,794           | 1,154                                   |
| Accretion of discount/premium on investment securities                     | 240                                     | (368)           | (1,124)                                 |
| Accounts receivable  | (465)                                   | 20,466          | (24,004)                                |
| Restricted cash  | (463)                                   | (5,008)         | _                                       |
| Prepaid expenses and other current assets                                  | (571)                                   | (768)           | (1,163)                                 |
| Other assets   | 52                                      | (45)            | 7                                       |
| Accounts payable and accrued expenses                                      | 1,574                                   | 278             | 4,315                                   |
| Accrued research and development costs                                     | 2,748                                   | 4,615           | 1,607                                   |
| Deferred revenue   | 54,148                                  | (8,338)         | 64,462                                  |
| Deferred rent  | 1,187                                   | 9,462           | 17                                      |
| Net cash used in operating activities                                      | (3,998)                                 | (28,195)        | (6,759)                                 |
| Cash flows from investing activities:                                      |   |                 |   |
| Purchases of available-for-sale securities                                 | (26,673)                                | (82,613)        | (87,839)                                |
| Sales and maturities of available-for-sale securities                      | 48,455                                  | 90,465          | 62,880                                  |
| Purchases of property and equipment  | (4,045)                                 | (22,934)        | (2,651)                                 |
| Proceeds from the sale of property and equipment                           | 21                                      | 9               | 1                                       |
| Net cash provided by (used in) investing activities                        | 17,758                                  | (15,073)        | (27,609)                                |
| Cash flows from financing activities:                                      |   |                 |   |
| Proceeds from issuance of preferred stock, net of issuance costs           | 40,250                                  | 49,598          | 49,951                                  |
| Proceeds from exercise of stock options and issuance of restricted stock . | 272                                     | 179             | 47                                      |
| Proceeds from sale of noncontrolling interest in subsidiary                |   | 1               |   |
| Proceeds from borrowings   | 2,642                                   | 465             | 1,640                                   |
| Payments on borrowings   | (1,501)                                 | (1,680)         | (920)                                   |
| Net cash provided by financing activities                                  | 41,663                                  | 48,563          | 50,718                                  |
| Net increase in cash and cash equivalents                                  | 55,423<br>67,722                        | 5,295<br>62,427 | 16,350<br>46,077                        |
| Cash and cash equivalents, end of period                                   | \$123,145                               | \$ 67,722       | \$ 62,427                               |
|  | ======================================= | =               | ======================================= |
| Supplemental cash flow disclosures:  Cash paid for interest                | \$ 412                                  | ¢ 222           | \$ 263                                  |
| Cash paid for income taxes   | \$ 412<br>\$ (153)                      | \$ 333<br>\$ —  | \$ 263<br>\$ —                          |
| Fair value of forward purchase contract                                    | \$ (133)<br>\$ —                        | \$ —<br>\$ —    | \$ 9,000                                |
| Settlement of forward purchase contracts                                   | \$(15,300)                              | \$ —<br>\$ —    | \$ 9,000                                |
| Purchases under capital leases   | \$ 67                                   | \$ 373          | \$ —                                    |
| Cumulative effect of change in accounting principle                        | \$ —                                    | \$ —            | \$ 186                                  |
| or r   |   |                 |   |

# **Notes to Consolidated Financial Statements**

#### 1. Nature of Business

Ironwood Pharmaceuticals, Inc. (the "Company") is an entrepreneurial pharmaceutical company that discovers, develops and commercializes innovative medicines targeting important therapeutic needs. The Company is focused on a portfolio of internally discovered drug candidates that currently includes one Phase 3 drug candidate (linaclotide), one Phase 1 pain drug candidate, and multiple preclinical candidates.

The Company holds a majority ownership interest in Microbia, Inc. (formerly known as Microbia Precision Engineering), a subsidiary formed in September 2006. Microbia, Inc. ("Microbia") focuses on building a specialty biochemicals business based on a proprietary strain-development platform.

The Company was incorporated in Delaware on January 5, 1998. On April 7, 2008, the Company changed its name from Microbia, Inc. to Ironwood Pharmaceuticals, Inc. The Company operates in two reportable business segments: human therapeutics and biomanufacturing (Note 19).

The Company has generated an accumulated deficit as of December 31, 2009 of approximately \$314.6 million since inception, and will require substantial additional capital for research and product development. At December 31, 2009, the Company believes that its unrestricted cash and cash equivalents totaling approximately \$123.1 million is sufficient to fund operations through at least the next 12 months. In February 2010, the Company completed its initial public offering of Class A common stock and raised a total of approximately \$203.1 million in net proceeds (Note 21).

# 2. Summary of Significant Accounting Policies

# **Basis of Presentation**

In June 2009, the Financial Accounting Standards Board ("FASB") issued the FASB Accounting Standards Codification ("Codification"). The Codification became the single source for all authoritative generally accepted accounting principles ("GAAP") recognized by the FASB and is required to be applied to financial statements issued for interim and annual periods ending after September 15, 2009. The Codification does not change GAAP and did not impact the Company's financial position or results of operations.

# **Principles of Consolidation**

During 2006, the Company formed Microbia as a 100% wholly owned subsidiary of the Company. In September 2006, Microbia sold additional equity interests to a third party, which reduced the Company's ownership interest in Microbia to 85% (Note 20). The accompanying consolidated financial statements of Ironwood Pharmaceuticals, Inc. include the assets, liabilities, revenue, and expenses of Microbia, over which the Company exercises control. The Company records noncontrolling interest in its consolidated statements of operations for the ownership interest of the minority owners of Microbia. All intercompany transactions and balances are eliminated in consolidation.

# **Use of Estimates**

The preparation of consolidated financial statements in accordance with generally accepted accounting principles in the United States requires the Company's management to make estimates and judgments that may affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. On an on-going basis, the Company's management evaluates its estimates, including those related to revenue recognition, impairment of long-lived assets,

# 2. Summary of Significant Accounting Policies (Continued)

income taxes including the valuation allowance for deferred tax assets, valuation of forward purchase contracts, research and development, contingencies, and share-based compensation. The Company bases its estimates on historical experience and on various other assumptions that are believed to be reasonable, the results of which form the basis for making judgments about the carrying values of assets and liabilities. Actual results may differ from these estimates under different assumptions or conditions. Changes in estimates are reflected in reported results in the period in which they become known.

# Cash and Cash Equivalents

The Company considers all highly liquid investment instruments with an original maturity when purchased of three months or less to be cash equivalents. Investments qualifying as cash equivalents primarily consist of money market funds. The carrying amount of cash equivalents approximates fair value. The amount of cash equivalents included in cash and cash equivalents was approximately \$120.6 million and \$63.0 million at December 31, 2009 and 2008, respectively.

# **Restricted Cash**

The Company is contingently liable under unused letters of credit in the amount of approximately \$8.4 million and \$8.0 million as of December 31, 2009 and 2008, respectively. These amounts are held on deposit with a bank to collateralize standby letters of credit related to the Company's facility lease agreements and credit card arrangements. As the Company occupies additional space under one of its facility leases (Note 11), it will have to collateralize additional standby letters of credit with restricted cash up to an additional total of approximately \$2.3 million. The cash will be restricted until the termination of the leases and credit card arrangements.

### **Accounts Receivable and Related Valuation Account**

Accounts receivable are presented net of allowance for doubtful accounts. The Company makes judgments as to its ability to collect outstanding receivables and provides an allowance for receivables when collection becomes doubtful. Provisions are made based upon a specific review of all significant outstanding invoices and the overall quality and age of those invoices not specifically reviewed. The Company's receivables primarily relate to amounts reimbursed under collaboration agreements and the Company believes that credit risks associated with these collaborators are not significant. To date, the Company has not had any write-offs of bad debt, and as such, the Company does not have an allowance for doubtful accounts as of December 31, 2009 and 2008.

### Available-for-Sale Securities

The Company classifies all short-term investments with an original maturity when purchased of greater than three months as available-for-sale. Available-for-sale securities are carried at fair value, with the unrealized gains and losses reported in other comprehensive income (loss). The amortized cost of debt securities in this category is adjusted for amortization of premiums and accretion of discounts to maturity. Such amortization is included in interest and investment income. Realized gains and losses, and declines in value judged to be other than temporary on available-for-sale securities, are included in interest and investment income.

The cost of securities sold is based on the specific identification method. Interest and dividends on securities classified as available-for-sale are included in interest and investment income. To determine

# Notes to Consolidated Financial Statements (Continued)

# 2. Summary of Significant Accounting Policies (Continued)

whether an other-than-temporary impairment exists, the Company considers whether it has the ability and intent to hold the investment until a market price recovery, and whether evidence indicating the recoverability of the cost of the investment outweighs evidence to the contrary. There were no other-than-temporary impairments for the years ended December 31, 2009, 2008 and 2007.

### **Concentrations of Credit Risk**

Financial instruments that subject the Company to credit risk primarily consist of cash and cash equivalents, restricted cash, available-for-sale securities, and accounts receivable. The Company maintains its cash and cash equivalent balances with high-quality financial institutions and, consequently, the Company believes that such funds are subject to minimal credit risk. The Company's available-for-sale investments potentially subject the Company to concentrations of credit risk. The Company has adopted an investment policy which limits the amounts the Company may invest in any one type of investment, and requires all investments held by the Company to be A+ rated, thereby reducing credit risk concentration.

Accounts receivable primarily consist of amounts due under the collaboration agreement with Forest Laboratories, Inc. ("Forest") and Almirall, S.A. ("Almirall") (Note 4) and from Tate & Lyle Investments, Ltd. ("T&L") (Note 20) for which the Company does not obtain collateral. Effective September 1, 2009, Forest became a related party when the Company sold to Forest 2,083,333 shares of the Company's Series G convertible preferred stock and effective November 2, 2009, Almirall became a related party when the Company sold to them 681,819 shares of its Series I convertible preferred stock. As a result, certain prior period accounts receivable balances for Forest have been reclassified to related party accounts receivable to conform to the current period financial statement presentation. These reclassifications have no effect on previous years' financial position or results of operations.

Forest accounted for approximately 75%, 83% and 44% of the Company's revenue for the years ended December 31, 2009, 2008 and 2007, respectively. Almirall accounted for approximately 20% of the Company's revenue for the year ended December 31, 2009. T&L accounted for approximately 5%, 10% and 29% of the Company's revenue for the years ended December 31, 2009, 2008 and 2007, respectively. For the year ended December 31, 2007, one additional customer accounted for 17% of the Company's revenue. For the years ended December 31, 2009 and 2008, no additional customers accounted for more than 10% of the Company's revenue.

At December 31, 2009 and 2008, Forest's accounts receivable, net of any payables due Forest, accounted for approximately 94% and 96%, respectively, of the Company's accounts receivable. At December 31, 2009, Almirall accounted for approximately 6% of the Company's accounts receivable. At December 31, 2009 and 2008, T&L accounted for approximately 0% and 4%, respectively, of the Company's accounts receivable.

# **Revenue Recognition**

The Company's revenue is generated primarily through collaborative research and development and licensing agreements. The terms of these agreements typically include payment to the Company of one or more of the following: nonrefundable, up-front license fees; milestone payments; sale of drug substance to its collaborators; and royalties on product sales. In addition, the Company generates services revenue through agreements that generally provide for fees for research and development services rendered, and may include additional payments at the conclusion of the research period upon

# Notes to Consolidated Financial Statements (Continued)

# 2. Summary of Significant Accounting Policies (Continued)

achieving specified events. These service agreements also contemplate royalty payments to the Company on future sales of its customers' products. To date the Company has earned no royalty revenue as a result of product sales.

The Company recognizes revenue when there is persuasive evidence that an arrangement exists, services have been rendered or delivery has occurred, the price is fixed and determinable, and collection is reasonably assured. The Company evaluates revenue from agreements that have multiple elements and accounts for the components as separate elements when the following criteria are met:

- the delivered items have value to the customer on a stand-alone basis;
- there is objective and reliable evidence of fair value of the undelivered items; and
- if there is a general right of return relative to the delivered items, delivery or performance of the undelivered items is considered probable and within the Company's control.

# Collaborative Arrangements Revenue

Up-front License Fees

The Company recognizes revenues from nonrefundable, up-front license fees for which the separation criteria were not met due to continuing involvement in the performance of research and development services on a straight-line basis over the contracted or estimated period of performance, which is typically the research or development term.

### Milestones

At the inception of each agreement that includes milestone payments, the Company evaluates whether each milestone is substantive and at risk to both parties on the basis of the contingent nature of the milestone, specifically reviewing factors such as the scientific and other risks that must be overcome to achieve the milestone, as well as the level of effort and investment required. Milestones that are not considered substantive are accounted for as license payments and recognized on a straight-line basis over the remaining period of performance.

In those circumstances where a substantive milestone is achieved, collection of the related receivable is reasonably assured and the Company has remaining obligations to perform under the collaboration arrangement, the Company recognizes as revenue on the date the milestone is achieved an amount equal to the applicable percentage of the performance period that has elapsed as of the date the milestone is achieved, with the balance being deferred and recognized on a straight-line basis over the remaining period of performance.

Payments received or reasonably assured after performance obligations are fully satisfied are recognized as earned.

# Services Revenue

The Company recognizes services revenue when there is persuasive evidence that an arrangement exists, services have been rendered or delivery has occurred, the price is fixed and determinable, and collection is reasonably assured. Revenue from research and development services rendered is recognized as services are performed. Bonus payments are recognized as revenue when achieved and

# 2. Summary of Significant Accounting Policies (Continued)

the bonus payments are due and collectible. Royalty revenue related to research and development services is recognized in the period the sales occur.

The Company receives research and development funding under the Forest collaboration agreement and considers the factors or indicators within this arrangement to determine whether reporting such funding on a gross or net basis is appropriate. The Company records revenue transactions gross in the consolidated statements of operations if it is deemed the principal in the transaction, which includes being the primary obligor and having the risks and rewards of ownership. The Company produces clinical materials for its collaborators and is reimbursed for its costs to produce such clinical materials. The Company recognizes revenue on clinical materials when the materials have passed all quality testing required for collaborator acceptance and title and risk of loss have transferred to the collaborator.

For certain of the Company's arrangements, particularly the Company's license agreement with Almirall, it is required that taxes be withheld on payments made to the Company. The Company has adopted a policy to recognize revenue net of these tax withholdings.

# Research and Development Costs

The Company expenses research and development costs to operations as incurred. The Company defers and capitalizes nonrefundable advance payments made by the Company for research and development activities until the related goods are received or the related services are performed.

Research and development expenses comprise costs incurred in performing research and development activities, including salary and benefits; share-based compensation expense; laboratory supplies and other direct expenses; facilities expenses; overhead expenses; contractual services, including clinical trial and related clinical manufacturing expenses; and other outside expenses. Also included in research and development expenses are the costs of revenue related to the Microbia services contracts.

The Company has entered into a collaboration agreement in which it shares research and development expenses with a collaborator. The Company records the expenses for such work as research and development expense. Because the collaboration arrangement is a cost-sharing arrangement, the Company concluded that when there is a period during the collaboration arrangement during which the Company receives payments from the collaborator, the Company records the payments by the collaborator for their share of the development effort as a reduction of research and development expense.

### **Share-Based Compensation**

Share-based compensation is recognized as an expense in the financial statements based on the grant date fair value. Compensation expense recognized relates to stock awards, restricted stock and stock options granted, modified, repurchased or cancelled on or after January 1, 2006. Stock options granted to employees prior to that time continue to be accounted for using the intrinsic value method. Under the intrinsic value method, compensation associated with share- based awards to employees was determined as the difference, if any, between the fair value of the underlying common stock on the date compensation is measured, generally the grant date, and the price an employee must pay to exercise the award. For awards that vest based on service conditions, the Company uses the

# 2. Summary of Significant Accounting Policies (Continued)

straight-line method to allocate compensation expense to reporting periods. The grant date fair value of options granted is calculated using the Black- Scholes option pricing model, which requires the use of subjective assumptions including volatility, expected term and the fair value of the underlying common stock, among others.

The Company records the expense for stock option grants subject to performance-based milestone vesting over the remaining service period when management determines that achievement of the milestone is probable. Management evaluates when the achievement of a performance-based milestone is probable based on the relative satisfaction of the performance conditions as of the reporting date.

The Company records the expense of services rendered by non-employees based on the estimated fair value of the stock option using the Black-Scholes option-pricing model. The fair value of non-employee awards are remeasured at each reporting period and expensed over the vesting term of the underlying stock options.

# Accounting for Sabbatical Leave

The Company accrues an employee's right to a compensated absence under a sabbatical, or other similar benefit arrangement that requires the completion of a minimum service period and the benefit increases with additional years of service, accumulates, and for arrangements in which the individual continues to be a compensated employee and is not required to perform duties for the entity during the absence. Therefore, the compensation cost associated with a sabbatical or other similar benefit arrangement should be accrued over the requisite service period. The Company adopted this policy on January 1, 2007, and recorded the effect as a change in accounting principle through a cumulative-effect adjustment to accumulated deficit. The adoption in the year ended December 31, 2007 resulted in additional accrued expenses and an increase to accumulated deficit of approximately \$0.2 million. During the years ended December 31, 2009, 2008 and 2007, the Company recorded expense for sabbatical costs of approximately \$0.1 million, \$0.2 million and \$0.1 million, respectively.

# **Noncontrolling Interest**

Effective January 1, 2009, the Company adopted a newly issued accounting standard for noncontrolling interests. In accordance with the accounting standard, the Company changed the accounting and reporting for its noncontrolling interest in its consolidated financial statements. Upon adoption, certain prior period amounts have been reclassified to conform to the current period financial statement presentation. These reclassifications have no effect on previous years' financial position or results of operations.

Noncontrolling interest represents the noncontrolling stockholder's proportionate share of equity and net income or net loss of the Company's consolidated subsidiary Microbia. The noncontrolling stockholder's proportionate share of the equity in Microbia, of approximately \$3.2 million and \$5.3 million as of December 31, 2009 and 2008, respectively, is reflected as noncontrolling interest in the Company's consolidated balance sheets as a component of stockholders' equity (deficit).

# **Notes to Consolidated Financial Statements (Continued)**

# 2. Summary of Significant Accounting Policies (Continued)

The proportionate share of the net loss attributable to noncontrolling interest is reflected in the accompanying consolidated statements of operations. The following table is a roll-forward of the noncontrolling interest (in thousands):

| Balance at December 31, 2006                     |                  |
|--|------------------|
| Balance at December 31, 2007                     | 6,495<br>1       |
| Net loss attributable to noncontrolling interest | (1,157)          |
| Balance at December 31, 2008                     | 5,339<br>(2,127) |
| Balance at December 31, 2009                     | \$ 3,212         |

### **Net Loss Per Share**

The Company calculates basic and diluted net loss per common share by dividing the net loss by the weighted average number of common shares outstanding during the period. The Company has excluded all shares that are subject to repurchase by the Company from the weighted average number of common shares outstanding. The Company's potentially dilutive shares, which include convertible preferred stock, outstanding common stock options and unvested shares of restricted stock, have not been included in the computation of diluted net loss per share for all periods as the result would be antidilutive.

# **Property and Equipment**

Property and equipment, including leasehold improvements, are recorded at cost, and are depreciated when placed into service using the straight-line method based on their estimated useful lives as follows:

| Asset Description             | (In Years) |
|-------------------------------|------------|
| Lab equipment                 | 5          |
| Computer and office equipment |            |
| Furniture and fixtures        | 7          |
| Software                      | 3          |

Included in property and equipment is the cost of internally developed software. The Company expenses all costs related to internally developed software, other than those incurred during the application development stage. Costs incurred during the application development stage are capitalized and amortized over the estimated useful life of the software. Leasehold improvements are amortized over the shorter of the estimated useful life of the asset or the lease term. Costs for capital assets not yet placed into service have been capitalized as construction in progress, and will be depreciated in accordance with the above guidelines once placed into service. Maintenance and repair costs are expensed as incurred.

# 2. Summary of Significant Accounting Policies (Continued)

# **Deferred Offering Costs**

Costs directly associated with the Company's proposed initial public offering of common stock have been deferred and recorded in prepaid expenses and other assets in the consolidated balance sheets based upon the Company's belief that its initial public offering will be completed. Upon completion of the initial public offering, such costs will be recorded as a reduction of the proceeds received in arriving at the amount to be recorded in stockholders' equity. The Company's initial public offering closed on February 8, 2010, at which time approximately \$1.3 million of offering costs that were deferred at December 31, 2009 were recorded as a reduction of the proceeds received.

#### **Income Taxes**

The Company provides for income taxes under the liability method. Deferred tax assets and liabilities are determined based on differences between financial reporting and tax bases of assets and liabilities and are measured using the enacted tax rates in effect when the differences are expected to reverse. Deferred tax assets are reduced by a valuation allowance to reflect the uncertainty associated with their ultimate realization.

The company accounts for uncertain tax positions recognized in the consolidated financial statements by prescribing a more-likely-than-not threshold for financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return.

# **Impairment of Long-Lived Assets**

The Company regularly reviews the carrying amount of its long-lived assets to determine whether indicators of impairment may exist which warrant adjustments to carrying values or estimated useful lives. If indications of impairment exist, projected future undiscounted cash flows associated with the asset are compared to the carrying amount to determine whether the asset's value is recoverable. If the carrying value of the asset exceeds such projected undiscounted cash flows, the asset will be written down to its estimated fair value. At December 31, 2009, the Company concluded that impairments of certain long-lived assets existed at its subsidiary, Microbia, resulting from its restructuring in the fourth quarter of 2009 (Note 20). Such long-lived assets were written down to their estimated fair value which resulted in a charge of approximately \$0.9 million. There were no indicators of impairment at December 31, 2008.

# **Comprehensive Income (Loss)**

All components of comprehensive income (loss) are required to be disclosed in the consolidated financial statements. Comprehensive income (loss) is defined as the change in equity of a business enterprise during a period from transactions, and other events and circumstances from non-owner sources and currently consists of net loss and changes in unrealized gains and losses on available-for-sale securities.

# 2. Summary of Significant Accounting Policies (Continued)

# **Segment Information**

Operating segments are components of an enterprise for which separate financial information is available and is evaluated regularly by the Company in deciding how to allocate resources and in assessing performance.

The Company has two reportable business segments: human therapeutics and biomanufacturing (Note 19). Revenue from the Company's human therapeutics segment is shown in the consolidated statements of operations as collaborative arrangements revenue. Revenue from the Company's biomanufacturing segment is shown as services revenue.

# **New Accounting Pronouncements**

From time to time, new accounting pronouncements are issued by the FASB or other standard setting bodies that are adopted by the Company as of the specified effective date. Unless otherwise discussed, the Company believes that the impact of recently issued standards that are not yet effective will not have a material impact on its consolidated financial position or results of operations upon adoption.

# Recently Issued Accounting Standards

In August 2009, the FASB issued Accounting Standards Update No. 2009-05, *Measuring Liabilities at Fair Value* ("ASU 2009-05"). ASU 2009-05 amends Accounting Standards Codification Topic 820, *Fair Value Measurements*. Specifically, ASU 2009-05 provides clarification that in circumstances in which a quoted price in an active market for the identical liability is not available, a reporting entity is required to measure fair value using one or more of the following methods: (1) a valuation technique that uses (a) the quoted price of the identical liability when traded as an asset or (b) quoted prices for similar liabilities or similar liabilities when traded as assets and/or (2) a valuation technique that is consistent with the principles of Topic 820 of the Codification (e.g. an income approach or market approach). ASU 2009-05 also clarifies that when estimating the fair value of a liability, a reporting entity is not required to adjust to include inputs relating to the existence of transfer restrictions on that liability. The adoption of this standard did not have an impact on the Company's financial position or results of operations.

In October 2009, the FASB issued ASU No. 2009-13, *Multiple-Deliverable Revenue Arrangements* ("ASU 2009-13"). ASU 2009-13, amends existing revenue recognition accounting pronouncements that are currently within the scope of Codification Subtopic 605-25 (previously included within EITF 00-21, *Revenue Arrangements with Multiple Deliverables* ("EITF 00-21"). The consensus to ASU 2009-13 provides accounting principles and application guidance on whether multiple deliverables exist, how the arrangement should be separated, and the consideration allocated. This guidance eliminates the requirement to establish the fair value of undelivered products and services and instead provides for separate revenue recognition based upon management's estimate of the selling price for an undelivered item when there is no other means to determine the fair value of that undelivered item. EITF 00-21 previously required that the fair value of the undelivered item be the price of the item either sold in a separate transaction between unrelated third parties or the price charged for each item when the item is sold separately by the vendor. Under EITF 00-21, if the fair value of all of the elements in the arrangement was not determinable, then revenue was deferred until all of the items were delivered or fair value was determined. This new approach is effective prospectively for revenue arrangements

# 2. Summary of Significant Accounting Policies (Continued)

entered into or materially modified in fiscal years beginning on or after June 15, 2010 and allows for retrospective application. The Company is currently evaluating the potential impact of this standard on its financial position and results of operations.

# Recently Adopted Accounting Standards

Effective January 1, 2009, the Company adopted new accounting guidance related to accounting for uncertainty in income taxes. This accounting standard clarifies the recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. This accounting standard also provides guidance on recognition, classification, interest and penalties, accounting in interim periods, disclosure and transition. The Company has not identified any material uncertain tax positions for which reserves would be required and the adoption of this accounting standard did not have an effect on its consolidated financial statements.

Effective January 1, 2009, the Company adopted a newly issued accounting standard for business combinations. This standard requires an acquiring company to measure all assets acquired and liabilities assumed, including contingent considerations and all contractual contingencies, at fair value as of the acquisition date. In addition, an acquiring company is required to capitalize in-process research and development and either amortize it over the life of the product, or write it off if the project is abandoned or impaired. This guidance is applicable to acquisitions completed after January 1, 2009 and as the Company did not have any business combinations in the year ended December 31 2009, the adoption did not impact its financial position or results of operations. The standard also amended accounting for uncertainty in income taxes. Previously, accounting standards generally required post-acquisition adjustments related to business combination deferred tax asset valuation allowances and liabilities for uncertain tax positions to be recorded as an increase or decrease to goodwill. This new standard does not permit this accounting and, generally, requires any such changes to be recorded in current period income tax expense. Thus, all changes to valuation allowances and liabilities for uncertain tax positions established in acquisition accounting, whether the business combination was accounted for under this guidance, will be recognized in current period income tax expense.

Effective January 1, 2009, the Company adopted new guidance for the accounting, reporting and disclosure of noncontrolling interests which requires, among other things, that noncontrolling interests be recorded as equity in the consolidated financial statements. The adoption of this new guidance resulted in the reclassification of noncontrolling interests (previously referred to as minority interests) to a separate component of stockholders' equity (deficit) on the consolidated balance sheet. Additionally, net loss attributable to noncontrolling interests is now shown separately from parent net loss in the consolidated statement of operations. Prior periods have been restated to reflect the presentation and disclosure requirements of the new guidance. Refer to Note 2, "Noncontrolling Interest," of these consolidated financial statements for additional information on the adoption of the new accounting standard for noncontrolling interests.

In April 2009, the FASB issued a new accounting standard providing guidance for the accounting of assets acquired and liabilities assumed in a business combination that arise from contingencies. This guidance amends and clarifies previous accounting standards to address application issues regarding the initial recognition and measurement, subsequent measurement and accounting, and disclosure of assets and liabilities arising from contingencies in a business combination. This guidance is applicable to

# Notes to Consolidated Financial Statements (Continued)

# 2. Summary of Significant Accounting Policies (Continued)

acquisitions completed after January 1, 2009. As the Company did not have any business combinations in the year ended December 31, 2009, the adoption did not impact its financial position or results of operations.

In May 2009, the FASB established general standards of accounting for and disclosures of events that occur after the balance sheet date but before financial statements are issued or are available to be issued. The Company's adoption of these standards had no material impact on its financial position, results of operations and cash flows.

# Reclassifications

Certain reclassifications were made to the prior year balance sheet amounts to conform to the current year's presentation in which related party accounts receivable from Forest are shown net of related party accounts payable to Forest.

# 3. Net Loss Per Share

Basic and diluted net loss per share is calculated as follows (in thousands, except share and per share amounts):

|   | Years Ended December 31, |             |             |  |
|---|--------------------------|-------------|-------------|--|
|   | 2009                     | 2008        | 2007        |  |
| Numerator:  |                          |             |             |  |
| Net loss attributable to Ironwood Pharmaceuticals, Inc  | <u>\$ (71,185)</u>       | \$ (53,874) | \$ (52,752) |  |
| Denominator:  |                          |             |             |  |
| Weighted-average number of common shares used in net loss per share attributable to Ironwood Pharmaceuticals, Inc.— |                          |             |             |  |
| basic and diluted   | 7,116,774                | 6,889,817   | 6,666,601   |  |
| Net loss per share attributable to Ironwood<br>Pharmaceuticals, Inc.—basic and diluted                              | \$ (10.00)               | \$ (7.82)   | \$ (7.91)   |  |

The following potentially dilutive securities have been excluded from the computation of diluted weighted average shares outstanding as of December 31, 2009, 2008 and 2007, as they would be anti-dilutive:

|                                  | Years Ended December 31, |            |            |  |  |
|----------------------------------|--------------------------|------------|------------|--|--|
|                                  | 2009                     | 2008       | 2007       |  |  |
| Convertible preferred stock      | 69,904,843               | 67,118,858 | 62,977,272 |  |  |
| Options to purchase common stock | 13,691,579               | 11,505,866 | 9,621,549  |  |  |
| Shares subject to repurchase     | 434,156                  | 65,990     | 167,826    |  |  |
|                                  | 84,030,578               | 78,690,714 | 72,766,647 |  |  |
|                                  |                          |            |            |  |  |

# 4. Collaboration and License Agreements

### Forest Laboratories, Inc.

In September 2007, the Company entered into a collaboration agreement with Forest to jointly develop and commercialize linaclotide, a drug candidate for the treatment of IBS-C, CC and other lower gastrointestinal conditions, in North America. Under the terms of this collaboration agreement, the Company shares equally with Forest all development costs, as well as potential future profits and losses from the development and sale of linaclotide in the United States. The Company will receive royalties from Forest for sales in Canada and Mexico. The Company retained the rights to commercialize linaclotide outside of North America. Forest made non-refundable, up-front payments totaling \$70.0 million to the Company in order to obtain rights to linaclotide in North America. These payments were made in two tranches, one of \$50.0 million paid in September 2007, and the second of \$20.0 million, which was paid in January 2008. Because of the Company's continuing involvement in the development program, the Company is recognizing the up-front license fee as revenue on a straight-line basis over five years, which is the Company's estimate of the period over which linaclotide will be jointly developed under the collaboration. The collaboration agreement also includes contingent milestone payments, as well as a contingent equity investment based on the achievement of specific clinical and commercial milestones. These payments, including the up-front license fee, could total up to \$330.0 million, if certain development and sales milestones are achieved for linaclotide. In September 2008, the Company achieved a clinical milestone which triggered a \$10.0 million milestone payment from Forest. The Company recognized revenue of approximately \$2.1 million upon achievement of the milestone. This amount represents the portion of the milestone payment equal to the applicable percentage of the performance period that had elapsed as of the date the milestone was achieved. The remainder of the balance was deferred, and is being recognized on a straight-line basis over the remaining development period.

The collaboration agreement includes a contingent equity investment, in the form of a forward purchase contract, which requires Forest to purchase 2,083,333 shares of the Company's convertible preferred stock, if a specific clinical milestone is met, at a price of \$12.00 per share. The Company evaluated this financial instrument and determined that because the Company may be required to settle the instrument by transferring assets to Forest due to "deemed liquidation" provisions of the preferred stock, it should be considered an asset or liability. The contingent equity investment was valued at inception at its estimated fair value. A significant input in the valuation of the forward purchase contract is the fair value of the Company's convertible preferred shares which are estimated using the probability-weighted expected return method under the American Institute of Certified Public Accountants Practice Aid, Valuation of Privately-Held Company Equity Securities Issued as Compensation (the "Practice Aid"). Under the probability-weighted expected return method, the value of the Company's convertible preferred shares is estimated based on an analysis of potential future values of the Company assuming various future liquidity events, the timing and amount of which is based on estimates from the Company. The resulting share value is based on the probability-weighted present value of the expected future returns, considering each of the possible outcomes as well as the rights of each share class. The calculated discount or premium from the pre-determined price paid by Forest for their shares in excess of the estimated fair value of the Company's convertible preferred stock at the expected time of meeting the milestone is discounted to arrive at the present value of the forward purchase contract.

After applying the methodology discussed above, the Company valued the contingent equity investment at September 12, 2007 at \$9.0 million, which represented the value of the premium that

# 4. Collaboration and License Agreements (Continued)

Forest will pay for shares of the Company's stock should the milestone be achieved. The \$9.0 million was recorded as an asset and incremental deferred revenue at the inception of the arrangement. The \$9.0 million of incremental deferred revenue, together with the \$70.0 million non-refundable up-front payments, are being recognized as revenue on a straight-line basis over the period of the Company's continuing involvement, which was estimated to be five years from the inception of the arrangement. During the years ended December 31, 2009, 2008 and 2007, the Company recognized approximately \$27.0 million, \$18.4 million and \$4.6 million, respectively, in revenue from the Forest collaboration agreement.

In addition, the Company is required to remeasure the fair value of the contingent equity investment at each reporting period using valuation methodologies consistent with the Practice Aid and using current assumptions. The resulting changes in value are then recorded as other income or expense. At December 31, 2007, the Company remeasured the fair value of the contingent equity investment using current assumptions and as a result, the contingent equity investment was valued at December 31, 2007 at \$9.6 million. At December 31, 2008, the Company again remeasured the fair value of the contingent equity investment using current assumptions and as a result, the contingent equity investment was valued at December 31, 2008 at \$8.7 million. For the years ended December 31, 2008 and 2007, the Company recorded a decrease of approximately \$0.9 million and an increase of approximately \$0.6 million, respectively, in the fair value of the forward purchase contract related to these remeasurements.

On July 22, 2009, the Company achieved the clinical milestone in the Forest collaboration agreement, thus triggering the equity investment. As a result, the Company remeasured the fair value of the contingent equity investment as of July 22, 2009 using assumptions as of that date. The resulting final fair value of the contingent equity investment was \$8.8 million. The increase of approximately \$0.1 million in the fair value of the contingent equity investment from December 31, 2008 was recorded to other income (expense) at that time and the Company reclassified the forward purchase contract as a reduction to convertible preferred stock. The Company issued the 2,083,333 shares to Forest on September 1, 2009. Additionally, the achievement of the clinical milestone triggered a \$20.0 million milestone payment from Forest that was received on August 20, 2009, of which approximately \$9.2 million was recognized as revenue in the year ended December 31, 2009.

Further, because the Company shares development costs equally with Forest, payments from Forest with respect to research and development costs incurred by the Company are recorded as a reduction to expense, and not as revenue. During the years ended December 31, 2009, 2008 and 2007, the Company offset approximately \$33.5 million, \$18.3 million, \$5.0 million, respectively, against research and development expense that was reimbursed from Forest for sharing of costs that the Company incurred for research and development under the collaboration.

## Almirall, S.A.

In April 2009, the Company entered into a license agreement with Almirall for European rights to develop and commercialize linaclotide for the treatment of IBS-C, CC and other lower gastrointestinal conditions. Under the terms of the license agreement, Almirall is responsible for the expenses associated with the development and commercialization of linaclotide in the European territory. The license agreement requires the Company to participate on a joint development committee over linaclotide's development period. The Company will receive escalating royalties from the sales of

# 4. Collaboration and License Agreements (Continued)

linaclotide in the European territory. In May 2009, the Company received a \$38.0 million payment from Almirall representing a \$40.0 million non-refundable up-front payment net of foreign withholding taxes. The Company elected to record the non-refundable up-front payment on a net basis. Because of the Company's continuing involvement in the development program, the Company is recognizing the up-front license fee as revenue on a straight-line basis over fifty months, which is the Company's estimate of the period over which linaclotide will be developed under the license agreement for the European territory. The license agreement also includes contingent milestone payments, as well as a contingent equity investment based on the achievement of specific clinical and sales milestones. These payments could total up to \$55.0 million, including the contingent equity investment discussed below, if certain development and sales milestones are achieved for linaclotide.

The license agreement includes a contingent equity investment, in the form of a forward purchase contract, which requires Almirall to purchase 681,819 shares of the Company's convertible preferred stock (or common stock if the Company is public), if a specific clinical milestone is met, at a price of \$22.00 per share. The Company evaluated this financial instrument and determined that because the Company may be required to settle the instrument by transferring assets to Almirall, it should be considered an asset or liability. The contingent equity investment was valued at inception at its fair value. The valuation was prepared using the same methodology that the Company used to value the Forest contingent equity investment. After applying this methodology, the Company valued the contingent equity investment at April 30, 2009 at \$6.0 million, which represents the value of the premium that Almirall will pay for shares of the Company's stock should the milestone be achieved. The \$6.0 million was recorded as an asset and incremental deferred revenue at the inception of the arrangement. The \$6.0 million of incremental deferred revenue, together with the \$38.0 million non-refundable up-front payment, are being recognized as revenue on a straight-line basis over the period of the Company's continuing involvement, which is estimated to be fifty months. During the year ended December 31, 2009, the Company recognized approximately \$6.1 million in revenue from the license agreement.

On November 2, 2009, the Company achieved the clinical milestone in the Almirall license agreement, thus triggering the equity investment. As a result, the Company remeasured the fair value of the contingent equity investment as of November 2, 2009 using assumptions as of that date. The resulting final fair value of the contingent equity investment was \$6.5 million. The increase of approximately \$0.5 million in the fair value of the contingent equity investment from April 30, 2009 was recorded to other income (expense) at that time and the Company reclassified the forward purchase contract as a reduction to convertible preferred stock. On November 13, 2009, the Company received \$15.0 million from Almirall for the 681,819 shares of convertible preferred stock.

### Astellas Pharma Inc.

On November 9, 2009, the Company entered into a license agreement with Astellas Pharma Inc. ("Astellas"). Astellas will have the right to develop and commercialize linaclotide for the treatment of IBS-C and other gastrointestinal conditions in Japan, South Korea, Taiwan, Thailand, Philippines, and Indonesia. Under the terms of the agreement, Astellas paid the Company an up-front licensing fee of \$30.0 million on November 16, 2009. The agreement includes additional development milestone payments that could total up to \$45.0 million. In addition, the Company will receive escalating royalties on linaclotide sales should Astellas receive approval to market and sell linaclotide in the Asian market. Astellas will be responsible for activities relating to regulatory approval and commercialization. As of

Notes to Consolidated Financial Statements (Continued)

# 4. Collaboration and License Agreements (Continued)

December 31, 2009, the Company deferred the commencement of revenue recognition of the up-front license fee until the earlier of either (i) the expected performance period of the Company's joint steering committee obligations can be reasonably and reliably estimated or (ii) the Company is no longer contractually obligated to perform all joint steering committee duties.

### 5. Fair Value of Financial Instruments

Effective January 1, 2009, the Company adopted a newly issued accounting standard for fair value measurements of all nonfinancial assets and nonfinancial liabilities not recognized or disclosed at fair value in the financial statements on a recurring basis.

In 2009, the Company implemented newly issued accounting standards which provide guidance for determining fair value when the volume and level of activity for the asset or liability have significantly decreased and identifying circumstances that indicate that a transaction is not orderly. Specifically, the new standards provide additional guidelines for making fair value measurements more consistent with the principles presented and provide authoritative guidance in determining whether a market is active or inactive, and whether a transaction is distressed. This guidance is applicable to all assets and liabilities (i.e. financial and nonfinancial) and requires enhanced disclosures, including interim and annual disclosure of the input and valuation techniques (or changes in techniques) used to measure fair value and the defining of the major security types comprising debt and equity securities held based upon the nature and risk of the security. The adoption of the new standards did not impact the Company's financial position or results of operations.

On January 1, 2008, the Company adopted an accounting standard for its financial assets and other items that are recognized or disclosed at fair value on a recurring basis. This accounting standard, among other things, defines fair value, establishes a framework for measuring fair value and expands disclosures about fair value measurements.

The table below presents information about the Company's assets that are measured at fair value on a recurring basis as of December 31, 2009 and indicates the fair value hierarchy of the valuation techniques the Company utilized to determine such fair value. In general, fair values determined by Level 1 inputs utilize observable inputs such as quoted prices in active markets for identical assets or liabilities. Fair values determined by Level 2 inputs utilize data points that are either directly or indirectly observable, such as quoted prices, interest rates and yield curves. Fair values determined by Level 3 inputs utilize unobservable data points in which there is little or no market data, which require the Company to develop its own assumptions for the asset or liability.

The Company's investment portfolio includes many fixed income securities that do not always trade on a daily basis. As a result, the pricing services used by the Company applied other available information as applicable through processes such as benchmark yields, benchmarking of like securities, sector groupings and matrix pricing to prepare evaluations. In addition, model processes were used to assess interest rate impact and develop prepayment scenarios. These models take into consideration relevant credit information, perceived market movements, sector news and economic events. The inputs into these models may include benchmark yields, reported trades, broker-dealer quotes, issuer spreads and other relevant data.

# **Notes to Consolidated Financial Statements (Continued)**

# 5. Fair Value of Financial Instruments (Continued)

The Company has classified assets measured at fair value on a recurring basis as follows (in thousands):

|   |                      | Fair Value Measu  | rements at Reporting                                   | g Date Using                                       |
|---|----------------------|---|--|--|
| Description   | December 31,<br>2009 | Quoted Prices in<br>Active Markets for<br>Identical Assets<br>(Level 1) | Significant Other<br>Observable<br>Inputs<br>(Level 2) | Significant<br>Unobservable<br>Inputs<br>(Level 3) |
| Money market funds (included in cash and cash equivalents) U.S. government-sponsored entities | \$102,583            | \$102,583   | \$ —   | \$—  |
| (included in cash and cash equivalents).  | 18,049               |   | 18,049   | _  |
| Total   | \$120,632            | \$102,583   | \$18,049   | \$   |

The Company held forward purchase contracts associated with the Company's collaboration agreement with Forest and license agreement with Almirall, as described in Note 4. The agreements required Forest and Almirall to purchase shares of the Company's convertible preferred stock (or common stock if the Company is public) at a pre-determined price upon meeting specific development milestones. The values of the forward purchase contracts represent the estimated probability weighted value of the premium above fair value that Forest and Almirall paid for the convertible preferred shares should the milestones be achieved. The Company estimates the fair value of the convertible preferred stock using methods consistent with the Practice Aid as discussed in Note 4. The Company remeasures the fair value of the forward purchase contracts at each reporting period using current assumptions, with changes in value recorded as other income or expense.

The following table is a roll-forward of the fair value the forward purchase contracts, where fair value is determined by Level 3 inputs (in thousands):

| Balance at December 31, 2008  | 8,700    |
|---|----------|
| Issuance of Almirall forward purchase contract                          | 6,000    |
| Increase in fair value of forward purchase contracts upon remeasurement |          |
| included in other income (expense)                                      | 600      |
| Settlement of forward purchase contracts                                | (15,300) |
| Balance at December 31, 2009  | \$ —     |

Cash, cash equivalents, accounts receivable, prepaid expenses and other current assets, restricted cash, accounts payable, accrued expenses, current portion of capital lease obligations and the current portion of long-term debt are carried at amounts that approximate fair value at December 31, 2009 and 2008 due to their short-term maturities.

Capital lease obligations and long-term debt approximate fair value at December 31, 2009 and 2008, as they bear interest at a rate approximating a market interest rate.

# 5. Fair Value of Financial Instruments (Continued)

As a result of the strategic restructuring plan implemented by Microbia in November 2009 (Note 20), the Company identified certain assets as impaired and at December 31, 2009 has classified these assets measured at fair value on a nonrecurring basis as follows (in thousands):

|                            |                      | Fair Value Measu  |  |  |                         |
|----------------------------|----------------------|---|--|--|-------------------------|
| Description                | December 31,<br>2009 | Quoted Prices in<br>Active Markets for<br>Identical Assets<br>(Level 1) | Significant Other<br>Observable<br>Inputs<br>(Level 2) | Significant<br>Unobservable<br>Inputs<br>(Level 3) | Total<br>Gains (Losses) |
| Long-lived assets held and |                      | (20/01/1)   | (2010)   |  | <u> </u>                |
| used                       | \$657                | \$  | \$657  | \$   | \$(890)                 |

The long-lived assets held and used have been classified as Level 2. These assets were initially valued at cost and when identified as impaired, valued at estimated selling price. The Company used observable inputs such as selling prices of similar equipment in similar condition.

### 6. Available-for-Sale Investments

The following is a summary of available-for-sale securities at December 31, 2008 (in thousands):

|                                    | <b>Amortized Cost</b> | Gross<br>Unrealized<br>Gains | Gross<br>Unrealized<br>Losses | Fair Value |
|------------------------------------|-----------------------|------------------------------|-------------------------------|------------|
| December 31, 2008:                 |                       |                              |                               |            |
| U.S. government-sponsored entities | \$12,873              | \$13                         | \$                            | \$12,886   |
| U.S. Treasury securities           | 9,149                 | _10                          | _                             | 9,159      |
| Total                              | \$22,022              | <u>\$23</u>                  | <u>\$—</u>                    | \$22,045   |

The Company did not have any available-for-sale securities at December 31, 2009.

The contractual maturities of all securities held at December 31, 2008 are one year or less. The Company reviews its investments for other-than-temporary impairment whenever the fair value of an investment is less than amortized cost and evidence indicates that an investment's carrying amount is not recoverable within a reasonable period of time. To determine whether an impairment is other-than-temporary, the Company considers whether it has the ability and intent to hold the investment until a market price recovery and considers whether evidence indicating the cost of the investment is recoverable outweighs evidence to the contrary.

The cost of securities sold is determined based on the specific identification method for purposes of recording realized gains and losses. Gross realized gains and losses on the sales of investments have not been material to the Company's consolidated results of operations.

# 7. Property and Equipment

Property and equipment consisted of the following (in thousands):

|  | December 31, |           |
|--|--------------|-----------|
|  | 2009         | 2008      |
| Lab equipment                                  | \$ 11,518    | \$ 11,115 |
| Computer and office equipment                  | 2,988        | 2,599     |
| Furniture and fixtures                         | 1,026        | 1,556     |
| Software                                       | 1,828        | 1,913     |
| Construction in process                        | 1,933        | 685       |
| Leasehold improvements                         | 17,243       | 17,124    |
|  | 36,536       | 34,992    |
| Less accumulated depreciation and amortization | (13,985)     | (10,396)  |
|  | \$ 22,551    | \$ 24,596 |

Property and equipment additions during the year ended December 31, 2009 primarily related to lab equipment and internally used software. Property and equipment additions during the year ended December 31, 2008 primarily related to the construction of leasehold improvements related to approximately 75,000 square feet of laboratory and office space at the Company's new research and development facility at 301 Binney Street in Cambridge, Massachusetts, as well as costs related to building out additional leased space for Microbia at 60 Westview Avenue in Lexington, Massachusetts. In the year ended December 21, 2009, the Company entered into capital leases for certain office equipment and in the year ended December 31, 2008, the Company entered into capital leases for certain computer equipment. As of December 31, 2009 and 2008, the Company had approximately \$0.4 million of assets under capital lease with accumulated amortization balances of approximately \$0.2 million and \$0.1 million, respectively.

Depreciation and amortization expense of property and equipment, including equipment recorded under capital leases, was approximately \$5.3 million, \$2.8 million and \$1.7 million for the years ended December 31, 2009, 2008 and 2007, respectively. In the year ended December 31, 2009, the Company recorded a charge for impairment of long-lived assets of approximately \$0.9 million which was required to adjust certain assets at Microbia to their fair value at the time Microbia implemented its strategic restructuring plan.

# 8. Accrued Expenses

Accrued expenses consisted of the following (in thousands):

|                       | Decem   | ber 31, |
|-----------------------|---------|---------|
|                       | 2009    | 2008    |
| Salaries and benefits | \$2,401 | \$2,021 |
| Professional fees     | 761     | 544     |
| Other                 | 1,737   | 1,776   |
|                       | \$4,899 | \$4,341 |

# Notes to Consolidated Financial Statements (Continued)

### 9. Patent Costs

The Company incurred and charged to operations legal and other fees related to patents of approximately \$1.8 million, \$1.5 million and \$1.6 million for the years ended December 31, 2009, 2008 and 2007, respectively. These costs were charged to general and administrative expenses as incurred.

### 10. Debt

The Company has a master loan and security agreement (the "Loan Agreement") with a financing company to finance the purchase of laboratory and other equipment. At December 31, 2009, the outstanding borrowings under the Loan Agreement were approximately \$3.1 million, which are being repaid with interest over periods of either 36 or 48 months. The Loan Agreement requires interest and principal payable in monthly installments ranging from \$1,000 to \$27,000 through November 2013. Borrowings under the Loan Agreement bear interest at a fixed rate between 9.99% and 12.50% for the duration of the term, and are collateralized by laboratory, computer and other equipment. At December 31, 2009, there were no funds available under the agreement to finance future equipment purchases.

At December 31, 2009, 2008 and 2007, the weighted average interest rate on the outstanding debt was 12.2%, 11.6% and 11.7%, respectively.

Scheduled principal repayments on long-term debt as of December 31, 2009 are as follows (in thousands):

| 2010 | \$1,310 |
|------|---------|
| 2011 | 904     |
| 2012 | 706     |
| 2013 | 154     |
|      | \$3,074 |

# 11. Commitments and Contingencies

The Company leases various facilities and equipment under leases that expire at varying dates through 2016. Certain of these leases contain renewal options, and require the Company to pay operating costs, including property taxes, insurance, and maintenance.

In January 2007, the Company entered into a lease agreement to rent approximately 114,400 square feet of office and lab space in Cambridge, Massachusetts. The initial term of the lease is eight years from the first rent commencement date, and the Company has the right to extend for two additional terms of five years each. Occupancy of the space occurs in four distinct phases, and rent for each phase commences at the earlier of a contractually set date or the occupancy date. Rent escalates on the fourth anniversary of the first rent commencement date based upon a formula that is tied to the Consumer Price Index. The space was delivered to the Company in September 2007, and rent payments for the first phase of occupancy commenced in January 2008. Upon commencement of the lease, the Company is recording a deferred rent liability related to the free rent and escalating rent payments. The escalating rent payments and free rent period are recognized on a straight-line basis over the term of the lease. The landlord agreed to reimburse the Company for its tenant improvements at a set rate per rentable square foot. Approximately \$7.9 million was paid as of December 31, 2009, and is

# Notes to Consolidated Financial Statements (Continued)

### 11. Commitments and Contingencies (Continued)

recorded as deferred rent on the consolidated balance sheet and is being amortized as a reduction to rent expense over the term of the lease.

On November 3, 2009, Microbia amended its facility lease to include an early termination option. In consideration for an up-front payment of approximately \$0.3 million, the landlord has given Microbia an option, which expires January 31, 2010, to terminate the lease by January 31, 2011. Under the terms of the amended lease, Microbia is required to establish a new \$0.5 million secured letter of credit, which the landlord will draw against monthly beginning in November 2009 and ending in February 2010. The landlord has agreed to defer the monthly base rent for the seven months beginning March 2010 and ending September 2010. On January 18, 2010, Microbia exercised the early termination option and as a result, the lease will terminate on September 30, 2010. Additionally, Microbia may be required to issue a warrant to the landlord, which is exercisable into shares of Microbia common stock. The number of shares issuable will be determined at the time of issuance in accordance with the terms of the warrant and the price per share will be the fair value of Microbia's common stock at that time. The Company calculated the fair value of the warrant at November 3, 2009 and at December 31, 2009, which was *de minimus*. The Company will continue to remeasure the fair value of the warrant at each reporting period and will record the resulting changes in value as other income or expense.

In connection with Microbia's November 2009 restructuring, Microbia may incur approximately \$0.5 million of additional restructuring costs if Microbia implements an additional reduction in force prior to the earlier of November 5, 2010 or the date that Microbia closes on a new round of financing.

In the years ended December 31, 2009 and 2008, the Company entered into three capital leases totaling approximately \$0.4 million for certain computer and office equipment. One lease expires in April 2011, the second lease expires in August 2011 and the third lease expires in November 2014. At December 31, 2009 and 2008, the weighted average interest rate on the outstanding capital lease obligations was 10.32% and 11.83%, respectively.

At December 31, 2009, future minimum lease payments under all non-cancelable lease arrangements are as follows (in thousands):

|                                    | Leases   | Leases       | Total    |
|------------------------------------|----------|--------------|----------|
| 2010                               | \$ 7,700 | \$162        | \$ 7,862 |
| 2011                               | 8,687    | 75           | 8,762    |
| 2012                               | 9,899    | 16           | 9,915    |
| 2013                               | 9,940    | 16           | 9,956    |
| 2014                               | 9,970    | 14           | 9,984    |
| Thereafter                         | 10,169   |              | 10,169   |
|                                    | 56,365   | 283          | 56,648   |
| Less amounts representing interest |          | (28)         | (28)     |
| Total minimum lease payments       | \$56,365 | <u>\$255</u> | \$56,620 |

Rent expense of approximately \$11.8 million, \$12.8 million and \$4.6 million was charged to operations for the years ended December 31, 2009, 2008 and 2007, respectively. The Company recorded sublease income of approximately \$0.4 million for the year ended December 31, 2008 as a reduction to

# Notes to Consolidated Financial Statements (Continued)

# 11. Commitments and Contingencies (Continued)

rent expense. The sublease agreement was terminated in November 2008. The Company did not record any sublease income for the years ended December 31, 2009 and 2007.

#### Guarantees

As permitted under Delaware law, the Company indemnifies its officers and directors for certain events or occurrences while the officer or director is, or was, serving at the Company's request in such capacity. The maximum potential amount of future payments the Company could be required to make is unlimited; however, the Company has directors and officers' insurance coverage that should limit its exposure and enable it to recover a portion of any future amounts paid.

The Company is a party to a number of agreements entered into in the ordinary course of business that contain typical provisions that obligate the Company to indemnify the other parties to such agreements upon the occurrence of certain events. Such indemnification obligations are usually in effect from the date of execution of the applicable agreement for a period equal to the applicable statute of limitations. The aggregate maximum potential future liability of the Company under such indemnification provisions is uncertain.

The Company leases office space under several non-cancelable operating leases. The Company has a standard indemnification arrangement under the leases that requires it to indemnify its landlords against all costs, expenses, fines, suits, claims, demands, liabilities, and actions directly resulting from any breach, violation or nonperformance of any covenant or condition of the Company's leases.

As of December 31, 2009 and 2008, the Company had not experienced any material losses related to these indemnification obligations and no material claims with respect thereto were outstanding. The Company does not expect significant claims related to these indemnification obligations and, consequently, concluded that the fair value of these obligations is negligible. As a result, the Company has not established any related reserves.

# 12. Litigation

In February 2008, Microbia and Teva Pharmaceutical Works, Rt., formerly known as Biogal Pharmaceutical Works, Rt. ("Teva"), entered into a Settlement Agreement (the "Settlement Agreement") related to a dispute under two of the Company's development agreements for Teva. Pursuant to the Settlement Agreement, Teva remitted a payment of approximately \$1.2 million to Microbia in March 2008, in settlement of all outstanding litigation. The settlement amount is recorded as services revenue in the consolidated statement of operations.

From time to time, the Company is involved in various legal proceedings and claims, either asserted or unasserted, which arise in the ordinary course of business. While the outcome of these other claims cannot be predicted with certainty, management does not believe that the outcome of any of these other legal matters will have a material adverse effect on the Company's consolidated financial statements.

# 13. Convertible Preferred Stock

The Company's Convertible Preferred Stock consisted of the following (in thousands, except share and per share amounts):

| Series A Convertible Preferred Stock, \$0.001 par value: 8,904,567 shares authorized, issued, and outstanding (liquidation value of approximately \$18.4 million and \$17.6 million at December 31, 2009 and 2008, respectively) \$ 9,795 \$ 9,795 \$ 9,795 \$ Series B Convertible Preferred Stock, \$0.001 par value: 7,419,355 shares authorized, issued, and outstanding (liquidation value of approximately \$40.3 million and \$38.5 million at December 31, 2009 and 2008, respectively) 23,000 23,000 \$ Series C Convertible Preferred Stock, \$0.001 par value: 6,401,523 shares authorized, issued, and outstanding (liquidation value of approximately |
|--|
| authorized, issued, and outstanding (liquidation value of approximately \$18.4 million and \$17.6 million at December 31, 2009 and 2008, respectively) \$ 9,795 \$ 9,795 Series B Convertible Preferred Stock, \$0.001 par value: 7,419,355 shares authorized, issued, and outstanding (liquidation value of approximately \$40.3 million and \$38.5 million at December 31, 2009 and 2008, respectively) 23,000 Series C Convertible Preferred Stock, \$0.001 par value: 6,401,523 shares authorized, issued, and outstanding (liquidation value of approximately   |
| authorized, issued, and outstanding (liquidation value of approximately \$40.3 million and \$38.5 million at December 31, 2009 and 2008, respectively) 23,000 23,000 Series C Convertible Preferred Stock, \$0.001 par value: 6,401,523 shares authorized, issued, and outstanding (liquidation value of approximately   |
| authorized, issued, and outstanding (liquidation value of approximately  |
| \$42.6 million and \$40.6 million at December 31, 2009 and 2008, respectively) 26,223 26,223   |
| Series D Convertible Preferred Stock, \$0.001 par value: 12,618,296 shares authorized, issued, and outstanding (liquidation value of approximately \$58.2 million and \$55.0 million at December 31, 2009 and 2008 respectively) 39,906 39,906   |
| Series E Convertible Preferred Stock, \$0.001 par value: 20,500,000 shares authorized, 19,633,531 shares issued and outstanding (liquidation value of approximately \$98.2 million and \$92.2 million at December 31, 2009 and 2008 respectively)  |
| Series F Convertible Preferred Stock, \$0.001 par value: 8,000,000 shares authorized, issued, and outstanding (liquidation value of approximately \$61.6 million and \$57.6 million at December 31, 2009 and 2008, respectively) 49,951 49,955   |
| Series G Convertible Preferred Stock, \$0.001 par value: 2,083,333 shares authorized, issued and outstanding (liquidation value of approximately \$25.7 million at December 31, 2009)  |
| Series H Convertible Preferred Stock, \$0.001 par value: 8,333,333 shares authorized, 4,162,419 issued and outstanding (liquidation value of approximately \$55.1 million and \$50.9 million at December 31, 2009 and 2008, respectively) 49,848 49,598  |
| Series I Convertible Preferred Stock, \$0.001 par value: 681,819 shares authorized, issued and outstanding (liquidation value of approximately \$15.2 million at December 31, 2009   |
| \$298,350 \$273,400  |

In February 2006, the Company issued 19,633,531 shares of Series E Convertible Preferred Stock at a price of \$3.82 per share for cash proceeds of approximately \$75.0 million, net of issuance costs of approximately \$0.1 million.

# **Notes to Consolidated Financial Statements (Continued)**

### 13. Convertible Preferred Stock (Continued)

In February 2007, the Company issued 8,000,000 shares of Series F Convertible Preferred Stock at a price of \$6.25 per share for cash proceeds of approximately \$50.0 million, net of issuance costs of approximately \$0.1 million.

In September 2008, the Company issued 4,141,586 shares of Series H Convertible Preferred Stock at a price of \$12.00 per share for cash proceeds of approximately \$49.6 million, net of issuance costs of approximately \$0.1 million.

In August 2009, the Company issued 20,833 shares of Series H Convertible Preferred Stock at a price of \$12.00 per share for cash proceeds of approximately \$0.2 million.

In September 2009, the Company issued 2,083,333 shares of Series G Convertible Preferred Stock at a price of \$12.00 per share for cash proceeds of approximately \$25.0 million. In July 2009, upon the settlement of the Forest forward purchase contract, \$8.8 million was reclassified from the forward purchase contract asset to convertible preferred stock to offset the \$25.0 million of proceeds received.

In November 2009, the Company settled the Almirall forward purchase contract by selling Almirall 681,819 shares of Series I Convertible Preferred Stock at a price of \$22.00 per share for cash proceeds of approximately \$15.0 million. Upon the settlement of the Almirall forward purchase contract, \$6.5 million was reclassified from the forward purchase contract asset to convertible preferred stock to offset the \$15.0 million of proceeds received.

The rights, preferences, and privileges of the Series A Convertible Preferred Stock, the Series B Convertible Preferred Stock, the Series C Convertible Preferred Stock, the Series D Convertible Preferred Stock, the Series F Convertible Preferred Stock, the Series F Convertible Preferred Stock, the Series G Convertible Preferred Stock, the Series H Convertible Preferred Stock; and the Series I Convertible Preferred Stock (together, the "Convertible Preferred Stock") are as follows:

### Conversion

At the option of the holder, each share of Convertible Preferred Stock is convertible into Class B Common Stock at the conversion price of \$1.10 for the Series A Convertible Preferred Stock, \$3.10 for the Series B Convertible Preferred Stock, \$3.82 for the Series C Convertible Preferred Stock, \$3.17 for the Series D Convertible Preferred Stock, \$3.82 for the Series E Convertible Preferred Stock, \$6.25 for the Series F Convertible Preferred Stock, \$12.00 for the Series G Convertible Preferred Stock, \$12.00 for the Series H Convertible Preferred Stock, and \$22.00 for the Series I Convertible Preferred Stock at December 31, 2009, or the equivalent price after adjustment for certain events defined in the Company's Certificate of Incorporation, such as stock splits.

Shares of the Convertible Preferred Stock automatically convert to Class B Common Stock upon the closing of a qualified public offering of the Company's common stock. On February 2, 2010, at the time the Company's initial public offering became effective, 69,904,843 shares outstanding of the Company's convertible preferred stock automatically converted into 70,391,620 shares of its Class B common stock.

### Dividends

The holders of the Convertible Preferred Stock are entitled to receive, when and if declared by the Board of Directors or upon a liquidation, dividends at the per annum rate of 8% of the original issue

# Notes to Consolidated Financial Statements (Continued)

### 13. Convertible Preferred Stock (Continued)

price of each outstanding share of the Convertible Preferred Stock. For purposes of involuntary liquidation of the Company, dividends accrue, whether or not declared or paid, and are cumulative. Such cumulative dividends in arrears on the Convertible Preferred Stock at December 31, 2009 and 2008 are approximately \$101.2 million and \$78.5 million, respectively, and are reflected in the liquidation preference amounts disclosed in the table listing the Company's Convertible Preferred Stock.

# Voting Rights

The holders of the Convertible Preferred Stock are entitled to the number of votes equal to the number of common stock shares into which they are convertible. The preferred stockholders vote with the common stockholders as a single class.

As long as at least 1,000,000 shares of the Series A Convertible Preferred Stock, 750,000 shares of the Series B Convertible Preferred Stock, 500,000 shares of the Series C Convertible Preferred Stock, 1,250,000 shares of the Series D Convertible Preferred Stock, 2,000,000 shares of the Series E Convertible Preferred Stock, 800,000 shares of the Series F Convertible Preferred Stock, 210,000 shares of Series G Convertible Preferred Stock, 830,000 shares of Series H Convertible Preferred Stock; and 70,000 shares of Series I Convertible Preferred Stock remain outstanding, consent of the holders of the Convertible Preferred Stock, voting together as a single class, will be required for the approval of certain events, including events relating to the liquidation, dissolution, or winding-up of the Company, or the issuance of additional preferred stock.

# Liquidation, Dissolution, or Winding-Up

In the event of a voluntary or involuntary liquidation, dissolution, or winding-up of the Company, holders of the Convertible Preferred Stock are entitled to be paid out of the assets available for distribution, the original issuance price of the respective shares, plus all accrued but unpaid dividends. If the assets of the Company are insufficient to pay the full preferential amounts to the holders of the Convertible Preferred Stock, the assets will be distributed ratably among the holders of the Convertible Preferred Stock in proportion to their aggregate liquidation preference amounts.

As the Convertible Preferred Stock may become redeemable upon an event that is outside of the control of the Company, the value of the Convertible Preferred Stock has been classified outside of permanent equity.

# Right of First Refusal

Subject to certain exceptions, holders of the Convertible Preferred Stock have the right of first refusal to purchase any new securities offered by the Company. The Company has the right of first refusal to purchase any shares that a stockholder offers for sale.

# 14. Stockholders' Equity (Deficit)

The Company is authorized to issue 272,003,626 shares of stock at December 31, 2009, of which 197,061,400 shares have been authorized for the issuance of common stock and 74,942,226 shares have been authorized for the issuance of preferred stock.

# 14. Stockholders' Equity (Deficit) (Continued)

#### **Common Stock**

In August 2008, the Company amended its certificate of incorporation to designate two series of common stock, Series A Common Stock (\$0.001 par value per share), which is referred to as "Class A Common Stock," and Series B Common Stock (\$0.001 par value per share), which is referred to as "Class B Common Stock." At December 31, 2009, the authorized number of shares of common stock consists of 98,530,700 shares each of Class A Common Stock and Class B Common Stock. All shares of common stock that were outstanding immediately prior to the filing of the August 2008 amendment were converted into shares of Class B Common Stock. The holders of Class A Common Stock and Class B Common Stock vote together as a single class. Class A Common Stock is entitled to one vote per share. Class B Common Stock is also entitled to one vote per share with the following exceptions: (1) after the completion of an initial public offering of the Company's stock, the holders of the Class B Common Stock are entitled to ten votes per share if the matter is an adoption of an agreement of merger or consolidation, an adoption of a resolution with respect to the sale, lease, or exchange of the Company's assets or an adoption of dissolution or liquidation of the Company, and (2) Class B common stockholders are entitled to ten votes per share on any matter if any individual, entity, or group seeks to obtain or has obtained beneficial ownership of 30% or more of the Company's outstanding shares of common stock. Class B Common Stock converts to Class A Common Stock if transferred or sold after the completion of a public offering. Class B Common Stock can be sold at any time and irrevocably converts to Class A Common Stock upon sale or transfer.

The Class B Common Stock will be entitled to a separate class vote for the issuance of additional shares of Class B Common Stock (except pursuant to dividends, splits or convertible securities), or any amendment, alteration or repeal of any provision of the Company's charter. All Class B Common Stock will automatically convert into Class A Common Stock upon the earliest of:

- the later of (1) the first date on which the number of shares of Class B Common Stock then outstanding is less than 25% of the number of shares of Class B Common Stock outstanding immediately following the completion of an initial public offering or (2) December 31, 2018;
- December 31, 2038; or
- a date agreed to in writing by a majority of the holders of the Class B Common Stock.

The Company has reserved such number of shares of Class A Common Stock as there are outstanding shares of Class B Common Stock solely for the purpose of effecting the conversion of the Class B Common Stock.

# **Notes to Consolidated Financial Statements (Continued)**

### 14. Stockholders' Equity (Deficit) (Continued)

As of December 31, 2009, the Company has reserved the following number of shares of common stock for the potential conversion of Convertible Preferred Stock and the exercise of stock options:

|                                      | December 31,<br>2009 |
|--------------------------------------|----------------------|
| Series A Convertible Preferred Stock | 8,904,567            |
| Series B Convertible Preferred Stock | 7,419,355            |
| Series C Convertible Preferred Stock | 6,888,300            |
| Series D Convertible Preferred Stock | 12,618,296           |
| Series E Convertible Preferred Stock | 19,633,531           |
| Series F Convertible Preferred Stock | 8,000,000            |
| Series G Convertible Preferred Stock | 2,083,333            |
| Series H Convertible Preferred Stock | 4,162,419            |
| Series I Convertible Preferred Stock | 681,819              |
| Common stock options                 | 13,691,579           |
|                                      | 84,083,199           |

### **Restricted Stock**

In 2005 and 2006, the Company sold an aggregate of 520,000 shares of common stock at par value (\$0.001 per share) to independent members of the Board of Directors under restricted stock agreements in accordance with the terms of the Company's 2002 Stock Incentive Plan ("2002 Plan"). The restricted stock vests ratably over four years from the grant date. In the event that a member of the Board of Directors ceases to serve for four years on the Company's Board of Directors for any reason, with or without cause, the Company has the right to repurchase some or all of the unvested shares at the fair values on the dates of issuance.

In 2009, the Company sold an aggregate of 515,549 shares of common stock to independent members of the Board of Directors under restricted stock agreements in accordance with the terms of the Company's 2005 Stock Incentive Plan ("2005 Plan") and the Company's director compensation program. 115,549 shares of restricted common stock sold in 2009 vested on December 31, 2009 and the remainder vest ratably over four years beginning in January 2010. In the event that a member of the Board of Directors ceases to serve on the Company's Board prior to December 31, 2013, the member shall forfeit all unvested shares in accordance with the terms of the restricted stock agreement.

A summary of the unvested shares of restricted stock as of December 31, 2009 is presented below:

|                               | Shares    | Weighted-Average<br>Grant Date<br>Fair Value |
|-------------------------------|-----------|--|
| Unvested at December 31, 2008 | 25,000    | \$1.56                                       |
| Granted                       | 515,549   | \$5.64                                       |
| Vested                        | (140,549) | \$4.85                                       |
| Forfeited                     |           | \$ —   |
| Unvested at December 31, 2009 | 400,000   | \$5.67                                       |

# 15. Stock Option Plans

The Company has several share-based compensation plans. Under the 1998 Amended and Restated Stock Option Plan ("1998 Plan"), options to purchase 3,405,000 shares of common stock were available for grant to employees, directors, and consultants of the Company. The options were granted under the 1998 Plan at fair market value on the grant date, generally vest over a period of four years, and expire ten years from the grant date. There are no shares available for future grant under this plan, as it expired in accordance with its terms in 2008. At December 31, 2009 and 2008, options for 550,633 and 632,533 shares, respectively, were outstanding under the 1998 Plan.

Under the Company's 2002 Plan and 2005 Plan (together, the "Plans"), stock awards may be granted to employees, officers, directors, consultants, or advisors of the Company. The Plans provide for the granting of stock options, restricted stock, restricted stock units, and other share-based awards. There are 4,700,000 shares of common stock reserved for issuance under the 2002 Plan and 11,500,000 shares reserved under the 2005 Plan. In January 2010, the Company's stockholders approved an increase of 700,000 shares to the number of common stock shares reserved for issuance under the 2005 Plan. The 2002 Plan allows for the transfer of unused shares from the 1998 Plan. Upon the expiration of the 1998 Plan on July 10, 2008, 382,438 unused shares were transferred to the 2002 Plan. At December 31, 2009, there were 60,477 shares available for future grant under the 2002 Plan and 2,195,039 shares available for future grant under the 2005 Plan.

Each plan provides for the granting of stock awards whereby the Company's Class B Common Stock is issuable upon exercise of options outstanding as of December 31, 2009.

The option price at the date of grant is determined by the Board of Directors and, in the case of incentive stock options, may not be less than the fair market value of the common stock at the date of grant. Due to the absence of an active market for the Company's common stock, prior to the Company's initial public offering being declared effective on February 2, 2010, the Board of Directors was required to determine the fair value of the common stock for consideration in setting exercise prices for the options granted and in valuing the options granted. In determining the fair value, the Board of Directors considered both quantitative and qualitative factors including prices at which the Company sold shares of its convertible preferred stock, the rights, preferences and liquidity of the Company's convertible preferred and common stock, the Company's historical operating and financial performance and the status of its research and product development efforts, achievement of enterprise milestones, including the Company entering into collaboration agreements where third parties agree to purchase shares of the Company's convertible preferred stock at fixed prices sometime in the future, external market conditions affecting the biotechnology industry sector, and financial market conditions and, commencing in 2006, contemporaneous valuations provided by management.

The option exercise period may not extend beyond ten years from the date of grant. The Plans provide that, subject to approval by the Board of Directors, option grantees may have the right to exercise an option prior to vesting. Shares purchased upon the exercise of unvested options will be subject to the same vesting schedule as the underlying options, and are subject to repurchase at the original exercise price by the Company should the employee be terminated or leave the Company prior to becoming fully vested in such shares. At December 31, 2009 and 2008, there were 34,156 and 40,990 shares, respectively, that had been issued pursuant to the exercise of unvested options that remain unvested and subject to repurchase by the Company. At December 31, 2009, the Company does not hold any treasury shares. Upon stock option exercise, the Company issues new shares and delivers them to the participant. The exercise of these shares is not substantive and as a result, the cash paid for the

### 15. Stock Option Plans (Continued)

exercise prices is considered a deposit or prepayment of the exercise price and is recorded as a liability and was not material to the consolidated financial statements at December 31, 2009 and 2008.

On January 21, 2010, the Company's stockholders approved the 2010 Employee, Director and Consultant Equity Incentive Plan ("2010 Plan") which became effective upon the closing of the Company's initial public offering on February 8, 2010. Under the 2010 Plan, stock awards may be granted to employees, officers, directors, or consultants of the Company. There are 6,000,000 shares of common stock initially reserved for issuance under the 2010 Plan. The number of shares available for future grant under the 2010 Plan may be increased on the first day of each fiscal year by an amount equal to the lesser of (i) 6,600,000; (ii) 4% of the number of outstanding shares of common stock on the first day of each fiscal year; and (iii) an amount determined by the Board of Directors. Awards that are returned to the Company's 1998 Plan, 2002 Plan and 2005 Plan as a result of their expiration, cancellation, termination or repurchase are automatically made available for issuance under the 2010 Plan.

On January 21, 2010, the Company's stockholders approved the 2010 Employee Stock Purchase Plan ("Purchase Plan") which became effective upon the closing of the Company's initial public offering on February 8, 2010. The Purchase Plan allows eligible employees the right to purchase shares of common stock at the lower of 85% of the fair market value of a share of common stock on the first or last day of an offering period. Each offering period is six months. There are 400,000 shares of common stock initially reserved for issuance pursuant to the Purchase Plan. The number of shares available for future grant under the Purchase Plan may be increased on the first day of each fiscal year by an amount equal to the lesser of (i) 1,000,000 shares, (ii) 1% of the shares of common stock outstanding on the last day of the immediately preceding fiscal year, or (iii) such lesser number of shares as is determined by the Board.

During 2008, Microbia adopted the 2008 Stock Option and Restricted Stock Plan ("Microbia Stock Plan"). Separate disclosure of the Microbia Plan is provided in Note 20.

The Company, from time to time, issues certain time-accelerated stock options to certain employees under the Plans. The vesting of these time-accelerated stock options accelerates upon the achievement of certain performance-based milestones, such as the filing of a New Drug Application ("NDA") with the Food and Drug Administration ("FDA"), the first commercial sale of the Company's product, the successful completion of an initial public offering, or achieving a specified market capitalization target, among others. If these criteria are not met, such options will vest between six and ten years after the date of grant, and expire at the end of ten years. At December 31, 2009 and 2008, there were 2,481,500 and 2,566,500 shares, respectively, issuable under outstanding and unvested time-accelerated options. When achievement of the milestone is not deemed probable, the Company recognizes compensation expense associated with time-accelerated stock options initially over the vesting period of the respective stock option. When deemed probable of achievement, the Company expenses the remaining unrecognized compensation for the respective stock option over the implicit service period.

During 2005, the Company granted to employees options to purchase 97,500 shares of common stock at an exercise price of \$0.60 per share, which represented the fair value of the stock at that time. These options are subject to performance-based milestone vesting and expire ten years from the date of grant. The options were deemed to be variable upon grant because the number of shares that will vest were not fixed on the date of grant. The options are therefore remeasured at each reporting period

# 15. Stock Option Plans (Continued)

until settlement of the option. During the year ended December 31, 2006, 37,500 shares vested as a result of milestone achievements. In the year ended December 31, 2008, it became probable that the remaining 60,000 unvested options would vest and the Company then recorded the related share-based compensation of approximately \$0.3 million. For the year ended December 31, 2009, the Company recorded related share-based compensation of approximately \$0.7 million for these options.

During the year ended December 31, 2009, the Company granted to employees options to purchase a total of 1,060,000 shares of common stock subject to performance-based milestone vesting. The vesting of these stock options will occur upon the achievement of certain performance-based milestones, such as the filing of a second NDA with the FDA, the first commercial sale of the Company's product, or achieving a specified sales target. The Company has concluded that the performance-based milestones are not probable of achievement, as such, no compensation expense has been recorded related to these options. At December 31, 2009, the unrecognized share-based compensation related to these options was approximately \$3.6 million.

The Company also grants options to external consultants. During the years ended December 31, 2009 and 2008, the Company granted options for the purchase of 37,000 and 123,100 shares, respectively, to external consultants. No options were granted to external consultants in 2007. The weighted-average grant date fair value of options granted to external consultants during the years ended December 31, 2009 and 2008 was \$4.97 and \$2.60, respectively. Most grants made to external consultants vest over a period of one year, and the expense related to these options is being charged to share-based compensation expense over the vesting period of the options. The amount of share-based compensation expense that may be recognized for outstanding, unvested options as of December 31, 2009 was approximately \$24,000. The amount of share-based compensation expense that will ultimately be recorded will depend on the remeasurement of the outstanding awards through their vesting date. This remaining compensation expense will be recognized over a weighted-average amortization period of 0.3 years at December 31, 2009.

In calculating share-based compensation costs, the Company estimated the fair value of stock options using the Black-Scholes option-pricing model. The Black-Scholes option-pricing model was developed for use in estimating the fair value of short-lived, exchange-traded options that have no vesting restrictions and are fully transferable. The Company estimates the number of awards that will be forfeited in calculating compensation costs. Such costs are then recognized over the requisite service period of the awards on a straight-line basis.

# Notes to Consolidated Financial Statements (Continued)

### 15. Stock Option Plans (Continued)

Determining the fair value of share-based awards using the Black-Scholes option-pricing model requires the use of highly subjective assumptions, including the expected term of the award and expected stock price volatility. The weighted average assumptions used to estimate the fair value of the stock options using the Black-Scholes option pricing model were as follows for the years ended December 31, 2009, 2008 and 2007:

|   | December 31, |            |            |
|---|--------------|------------|------------|
|   | 2009         | 2008       | 2007       |
| Weighted-average fair value of common stock | \$5.19       | \$3.94     | \$2.99     |
| Expected volatility                         | 62.3%        | 64.0%      | 65.0%      |
| Expected term (in years)                    | 6.5          | 6.5        | 7.0        |
| Risk-free interest rate                     | 2.7%         | 3.1%       | 4.6%       |
| Expected dividend yield                     | <b>—</b> %   | <b>—</b> % | <b>—</b> % |

# Expected Volatility

Volatility measures the amount that a stock price has fluctuated or is expected to fluctuate during a period. As the Company was not publicly traded prior to February 3, 2010 and therefore had no trading history, stock price volatility was estimated based on an analysis of historical and implied volatility of comparable public companies.

# Expected Term

The Company has limited historical information to develop reasonable expectations about future exercise patterns and post-vesting employment termination behavior for its stock option grants. As a result, for stock option grants made during the years ended December 31, 2009, 2008 and 2007, the expected term was estimated using the "simplified method." The simplified method is based on the average of the vesting tranches and the contractual life of each grant.

### Risk-Free Interest Rate

The risk-free interest rate used for each grant is based on a zero-coupon U.S. Treasury instrument with a remaining term similar to the expected term of the share-based award.

# Expected Dividend Yield

The Company has not paid and does not anticipate paying cash dividends on its shares of common stock in the foreseeable future; therefore, the expected dividend yield is assumed to be zero.

# **Forfeitures**

Forfeitures are estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from the Company's estimates. Subsequent changes in estimated forfeitures are recognized through a cumulative adjustment in the period of change, and will also impact the amount of share-based compensation expense in future periods. The Company uses historical data to estimate forfeiture rates. The Company's forfeiture rates were 5.8%, 4.4% and 5.0% as of December 31, 2009, 2008 and 2007, respectively.

# 15. Stock Option Plans (Continued)

The following table summarizes the expense recognized for these share-based compensation arrangements in the consolidated statements of operations (in thousands):

|                               | Years Ended December 31, |         |         |
|-------------------------------|--------------------------|---------|---------|
|                               | 2009                     | 2008    | 2007    |
| Ironwood:                     |                          |         |         |
| Employee stock options        | \$4,010                  | \$2,293 | \$ 973  |
| Restricted stock awards       | 784                      | _       | _       |
| Non-employee stock options    | 301                      | 300     | 59      |
| Stock award                   |                          | 25      |         |
|                               | 5,095                    | 2,618   | 1,032   |
| Microbia Stock Plan (Note 20) | 149                      | 176     | 122     |
|                               | \$5,244                  | \$2,794 | \$1,154 |

Share-based compensation is reflected in the consolidated statements of operations as follows for the years ended December 31, 2009, 2008 and 2007 (in thousands):

|                            | Years Ended December 31, |         |       |
|----------------------------|--------------------------|---------|-------|
|                            | 2009                     | 2008    | 2007  |
| Research and development   | \$2,398                  | \$1,708 | \$795 |
| General and administrative | 2,846                    | 1,086   | 359   |

At December 31, 2009, there were 2,255,516 shares, respectively, available for future grant under the Plans. Options outstanding at December 31, 2009 are exercisable into Class B Common Stock.

The following table summarizes stock option activity under the Plans, including performance-based options:

| Intrinsic<br>Value |
|--------------------|
| in thousands)      |
| \$ 36,300          |
|                    |
|                    |
|                    |
| \$131,459          |
| \$119,244          |
| \$ 75,630          |
|                    |

<sup>(1)</sup> All stock options granted contain provisions allowing for the early exercise of such options into restricted stock. The exercisable shares disclosed above represent those that are vested as of December 31, 2009.

# Notes to Consolidated Financial Statements (Continued)

#### 15. Stock Option Plans (Continued)

The weighted-average grant date fair value of options granted to employees during the years ended December 31, 2009, 2008 and 2007 was \$3.17, \$2.44 and \$2.07, respectively. The total intrinsic value of options exercised during the years ended December 31, 2009, 2008 and 2007 was approximately \$1.6 million, \$0.4 million and \$0.2 million, respectively. The intrinsic value was calculated as the difference between the estimated fair value of the Company's common stock and the exercise price of the option issued. The fair value of the Company's common stock was \$12.05 and \$4.89 per share at December 31, 2009 and 2008, respectively.

The grant-date fair value of the options granted to employees during the years ended December 31, 2009, 2008 and 2007 was approximately \$9.1 million, \$4.7 million, \$3.2 million, respectively.

As of December 31, 2009, there was approximately \$1.9 million and \$7.5 million of unrecognized share-based compensation, net of estimated forfeitures, related to restricted stock awards and unvested stock option grants with time-based vesting, respectively which are expected to be recognized over a weighted average period of 3.84 years. The total unrecognized share-based compensation cost will be adjusted for future changes in estimated forfeitures.

#### 16. Income Taxes

Although no provision for federal or state income taxes has been recorded due to the Company's cumulative net operating losses since inception, for the year ending December 31, 2009, the Company recognized a federal income tax benefit of approximately \$0.3 million related to refundable research and development tax credits, resulting from a provision in the Housing Assistance Tax Act of 2008 that allowed the Company to claim a refund for a portion of its unused pre-2006 research tax credits on its 2008 U.S. federal income tax return.

A reconciliation of income taxes computed using the U.S. federal statutory rate to that reflected in operations follows (in thousands):

|   | Years Ended December 31, |            |            |
|---|--------------------------|------------|------------|
|   | 2009                     | 2008       | 2007       |
| Income tax benefit using U.S. federal statutory rate. | \$(24,303)               | \$(18,317) | \$(17,936) |
| State income taxes, net of federal benefit            | (3,892)                  | (3,305)    | (3,449)    |
| Stock compensation                                    | 1,356                    | 838        | 372        |
| Tax credits   | (4,826)                  | (460)      | (2,227)    |
| Change in tax rates                                   | 1,821                    | _          | _          |
| Change in the valuation allowance                     | 27,937                   | 21,639     | 23,347     |
| Other   | 1,611                    | (395)      | (107)      |
|   | <u>\$ (296)</u>          | \$         | \$         |

#### 16. Income Taxes (Continued)

Components of the Company's deferred tax assets and liabilities are as follows (in thousands):

|                                      | December 31, |        | 31, |          |
|--------------------------------------|--------------|--------|-----|----------|
|                                      | 20           | 009    |     | 2008     |
| Deferred tax assets:                 |              |        |     |          |
| Net operating loss carryforwards     | \$ 4         | 2,322  | \$  | 30,381   |
| Tax credit carryforwards             | 1            | 3,416  |     | 8,885    |
| Capitalized research and development | 5            | 1,542  |     | 39,413   |
| Deferred revenue                     | 1            | 7,092  |     | 23,595   |
| Other                                |              | 7,506  |     | 1,667    |
| Total deferred tax assets            | 13           | 1,878  |     | 103,941  |
| Valuation allowance                  | (13          | 1,878) | _(  | 103,941) |
| Net current deferred tax asset       | \$           |        | \$  |          |

Management of the Company has evaluated the positive and negative evidence bearing upon the realizability of its deferred tax assets. Management has considered the Company's history of operating losses and concluded, in accordance with the applicable accounting standards, that it is more likely than not that the Company may not realize the benefit of its deferred tax assets. Accordingly, the deferred tax assets have been fully reserved at December 31, 2009 and 2008. Management reevaluates the positive and negative evidence on a quarterly basis.

The valuation allowance increased approximately \$27.9 million during the year ended December 31, 2009, due primarily to the increase in the net operating loss carryforwards, capitalized research and development expenses and tax credits. The valuation allowance increased approximately \$21.6 million during the year ended December 31, 2008, due primarily to the increase in the net operation loss carryforwards and research and development tax credits. The valuation allowance increased \$23.3 million during the year ended December 31, 2007, due primarily to the increase in the net operating loss carryforwards and research and development tax credits.

Subject to the limitations described below at December 31, 2009 and 2008, the Company has net operating loss carryforwards of approximately \$111.3 million and \$78.2 million, respectively, to offset future federal taxable income, which expire beginning in 2018 continuing through 2029. As of December 31, 2009 and 2008, the Company has state net operating loss carryforwards of approximately \$82.3 million and \$60.0 million, respectively, to offset future state taxable income, which have begun to expire and will continue to expire through 2014. The Company also has tax credit carryforwards of approximately \$14.7 million and \$10.1 million as of December 31, 2009 and 2008, respectively, to offset future federal and state income taxes, which expire at various times through 2029.

Utilization of net operating loss carryforwards and research and development credit carryforwards may be subject to a substantial annual limitation due to ownership change limitations that have occurred previously or that could occur in the future in accordance with Section 382 of the Internal Revenue Code of 1986 ("IRC Section 382") and with Section 383 of the Internal Revenue Code of 1986, as well as similar state provisions. These ownership changes may limit the amount of net operating loss carryforwards and research and development credit carryforwards that can be utilized annually to offset future taxable income and taxes, respectively. In general, an ownership change, as defined by IRC Section 382, results from transactions increasing the ownership of certain stockholders

#### 16. Income Taxes (Continued)

or public groups in the stock of a corporation by more than 50 percentage points over a three-year period. The Company has completed several financings since its inception which may have resulted in a change in control as defined by IRC Section 382, or could result in a change in control in the future.

Effective January 1, 2009, the Company adopted new accounting guidance related to accounting for uncertainty in income taxes. The Company's reserves related to taxes are based on a determination of whether and how much of a tax benefit taken by the Company in its tax filings or positions is more likely than not to be realized following resolution of any potential contingencies present related to the tax benefit. As a result of the implementation of the new guidance, the Company recognized no material adjustment for unrecognized income tax benefits. At the adoption date of January 1, 2009, and also at December 31, 2009, the Company had no unrecognized tax benefits.

The Company will recognize interest and penalties related to uncertain tax positions in income tax expense. As of January 1, 2009 and December 31, 2009, the Company had no accrued interest or penalties related to uncertain tax positions and no amounts have been recognized in the Company's consolidated statements of operations.

The statute of limitations for assessment by the Internal Revenue Service ("IRS") and state tax authorities is open for tax years ending December 31, 2006, 2007 and 2008, although carryforward attributes that were generated prior to tax year 2006 may still be adjusted upon examination by the IRS or state tax authorities if they either have been or will be used in a future period. There are currently no federal or state audits in progress.

The Company has not, as yet, conducted a study of its research and development credit carryforwards. This study may result in an adjustment to the Company's research and development credit carryforwards; however, until a study is completed and any adjustment is known, no amounts are being presented as an uncertain tax position. A full valuation allowance has been provided against the Company's research and development credits and, if an adjustment is required, this adjustment would be offset by an adjustment to the valuation allowance.

#### 17. Defined Contribution Plan

The Ironwood Pharmaceuticals, Inc. 401(k) Savings Plan is a defined contribution plan in the form of a qualified 401(k) plan in which substantially all employees are eligible to participate upon employment. Subject to certain IRC limits, eligible employees may elect to contribute from 1% to 100% of their compensation. Company contributions to the plan are at the sole discretion of the Company's Board of Directors. In 2008, the Company instituted a matching contribution of 50% of the employee's first \$6,000 of contributions. During the years ended December 31, 2009, 2008 and 2007, the Company recorded approximately \$0.5 million, \$0.4 million and \$0 in expense associated with its 401(k) company match.

# Notes to Consolidated Financial Statements (Continued)

#### 18. Related Party Transactions

The Company has and currently obtains legal services from a law firm that is an investor of the Company. The Company paid approximately \$0.1 million, \$0.1 million and \$0.1 million in legal fees to this investor during the years ended December 31, 2009, 2008 and 2007, respectively.

In September 2009, Forest became a related party when the Company sold to Forest 2,083,333 shares of the Company's convertible preferred stock and in November 2009, Almirall became a related party when the Company sold to Almirall 681,819 shares of the Company's convertible preferred stock (Note 4). Additional related party disclosure related to Microbia and T&L is included in Note 20.

## 19. Segment Reporting

The Company has two reportable business segments: human therapeutics and biomanufacturing. The Company has no inter-segment revenues.

The following table reports revenue and loss from operations for the Company's reportable segments for the years ended December 31, 2009, 2008 and 2007 (in thousands):

|                       | Years Ended December 31, |                   |                   |  |
|-----------------------|--------------------------|-------------------|-------------------|--|
|                       | 2009                     | 2008              | 2007              |  |
| Revenue:              |                          |                   |                   |  |
| Human therapeutics    | \$ 34,321                | \$ 18,383         | \$ 4,608          |  |
| Biomanufacturing      | 1,781                    | 3,833             | 5,856             |  |
| Total                 | \$ 36,102                | \$ 22,216         | \$ 10,464         |  |
| Loss from operations: |                          |                   |                   |  |
| Human therapeutics    | \$(60,816)               | \$ (48,307)       | \$ (54,688)       |  |
| Biomanufacturing      | (13,161)                 | (7,614)           | (2,927)           |  |
| Total                 | <u>\$(73,977)</u>        | <u>\$(55,921)</u> | <u>\$(57,615)</u> |  |
| Total assets:         |                          |                   |                   |  |
| Human therapeutics    | \$160,105                | \$134,554         | \$130,686         |  |
| Biomanufacturing      | 2,346                    | 3,817             | 4,949             |  |
| Total                 | <u>\$162,451</u>         | <u>\$138,371</u>  | <u>\$135,635</u>  |  |

At December 31, 2009 and 2008, approximately \$15,000 and approximately \$0.2 million, respectively, of the Company's accounts receivable related to the Company's biomanufacturing segment and approximately \$5.2 million and \$6.9 million, respectively, of the Company's accounts receivable related to the human therapeutics segment.

## 20. Microbia, Inc.

## Sale of Securities in Microbia, Inc.

In September 2006, the Company entered into a collaboration agreement with T&L. The collaboration agreement has a five-year term with a one-year notice of termination that is not effective until the third anniversary of the agreement. In connection with the execution of the collaboration agreement, the Company also issued T&L 1,823,529 shares of common stock of Microbia, the Company's wholly owned subsidiary, at the aggregate purchase price of approximately \$2,000, and

# Notes to Consolidated Financial Statements (Continued)

#### 20. Microbia, Inc. (Continued)

issued 7,000,000 shares of convertible preferred stock of Microbia at the aggregate purchase price of \$7.0 million. After the sale of stock to T&L, the Company retained an 85% majority ownership interest and T&L had a 15% noncontrolling interest in Microbia. The Company's ownership interest in Microbia is comprised entirely of convertible preferred stock with the same preferences to that held by T&L. The ownership of the convertible preferred and common stock by T&L is recorded as noncontrolling interest in the consolidated financial statements.

In evaluating whether or not T&L's investment in Microbia's convertible preferred stock should be classified as noncontrolling interest, the Company had to determine whether or not the convertible preferred stock was in fact in-substance common stock. In-substance common stock is an investment in an entity that has risk and reward characteristics that are substantially similar to that entity's common stock. After reviewing the criteria for treatment as in-substance common stock, the Company concluded that the liquidation preference of the convertible preferred stock is not substantive as Microbia has little subordinated equity, in the form of common stock, from a fair value perspective. As a result, in the event of liquidation, the convertible preferred stock will participate in substantially all of Microbia's losses. The Company also concluded that T&L's investment in Microbia's convertible preferred stock has the risks and rewards of ownership. T&L has the ability to convert the convertible preferred stock into Microbia common stock without any significant restrictions or contingencies that prohibit them from participating in the capital appreciation of Microbia in a manner that is substantially similar to Microbia's common stock. Therefore, this conversion feature is an indicator that the convertible preferred stock is substantially similar to common stock. Additionally, Microbia's preferred stock does not require Microbia to transfer substantive value to T&L in a manner in which the common stockholders do not participate similarly, for example, the preferred stock is not redeemable. As a result, the Company concluded that T&L's investment in Microbia's convertible preferred stock was in fact an investment in in-substance common stock and accordingly attributes Microbia's losses based on the relative ownership interests in Microbia, represented by T&L's common and preferred stock ownership. This results in attributing 15% of Microbia's losses to the noncontrolling interest in the Company's consolidated financial statements.

Prior to 2006, the Company entered into certain research agreements with T&L. Under these agreements, the Company used its technology to enhance the biological strains owned by T&L through process development work using its proprietary technology, which is intended to improve the biomanufacturing efficiency of existing pharmaceutical products and optimize the genetic potential of a bioprocess more rapidly than classical methods. Prior to September 2006, T&L did not have any ownership interest in the Company or its subsidiaries. Research fees earned from T&L totaled approximately \$1.8 million, \$2.2 million and \$3.0 million in 2009, 2008 and 2007. Accounts receivable from T&L was approximately \$10,000 and \$0.2 million at December 31, 2009 and 2008, respectively.

#### Convertible Preferred Stock

#### Conversion

At the option of the holder, each share of Microbia preferred stock is convertible into Microbia common stock at the conversion price of \$1.00, or the equivalent price after adjustment for certain events defined in the Microbia Certificate of Incorporation, such as stock splits. Shares of the Microbia preferred stock automatically convert to common stock upon the closing of a qualified public offering of Microbia's common stock with net proceeds exceeding \$30.0 million.

#### 20. Microbia, Inc. (Continued)

#### Dividends

The holders of the Microbia preferred stock are entitled to receive, when and if declared by the Board of Directors of Microbia or upon a liquidation, dividends at the per annum rate of 8% of the original issue price of each outstanding share of the Microbia preferred stock. For purposes of involuntary liquidation of Microbia, dividends accrue, whether or not declared or paid, and are cumulative. Such cumulative dividends in arrears on the Microbia preferred stock held by T&L are approximately \$1.8 million and \$1.3 million at December 31, 2009 and 2008, respectively, and are reflected in the liquidation preference and not the carrying value of the convertible preferred stock.

# Voting Rights

The holders of the Microbia preferred stock are entitled to the number of votes equal to the number of common stock shares into which they are convertible. The Microbia preferred stockholders vote with the common stockholders as a single class.

## Liquidation, Dissolution, or Winding-Up

In the event of a voluntary or involuntary liquidation, dissolution, or winding-up of Microbia, holders of the Microbia preferred stock are entitled to be paid out of the assets available for distribution, the original issuance price of the respective shares, plus all accrued but unpaid dividends. If the assets of Microbia are insufficient to pay the full preferential amounts to the Microbia preferred stockholders, the assets will be distributed ratably among the holders of the Microbia preferred stock in proportion to their aggregate liquidation preference amounts. T&L's liquidation preference, including dividend preference, is approximately \$8.8 million and \$8.3 million at December 31, 2009 and 2008, respectively.

# **Stock Option Plan**

Under the Microbia Stock Plan, options may be granted to employees, officers, directors, consultants, or advisors of Microbia. The Microbia Stock Plan provides for the granting of non-statutory stock options, incentive stock options, stock bonuses, and rights to acquire restricted stock of Microbia, which are not exchangeable for either options or shares of the Company. There are 7,544,061 shares of common stock reserved for issuance under the Plan. At December 31, 2009, there were 376,157 shares of common stock available for grant under the Microbia Stock Plan.

The option price at the date of grant is determined by the Board of Directors and, in the case of incentive stock options, may not be less than the fair value of the common stock at the date of grant. Due to the absence of an active market for Microbia's common stock, the Board of Directors was required to determine the fair value of the common stock for consideration in setting exercise prices for the options granted and in valuing the options granted. In determining the fair value, the Board of Directors considered both quantitative and qualitative factors including prices at which Microbia sold shares of preferred stock, the rights, preferences and liquidity of Microbia's preferred and common stock, Microbia's historical operating and financial performance and the status of its research and product development efforts, achievement of enterprise milestones, external market conditions affecting similar companies, and financial market conditions and, commencing in 2006, contemporaneous valuations provided by management. As Microbia's common stock is not actively traded, the determination of fair value involves assumptions, judgments and estimates. If different assumptions

# Notes to Consolidated Financial Statements (Continued)

#### 20. Microbia, Inc. (Continued)

were made, share-based compensation expense, net loss and consolidated net loss per share could have been significantly different.

The provisions of the Microbia Stock Plan limits the exercise of incentive stock options, but in no case may the exercise period extend beyond ten years from the date of grant. The Microbia Stock Plan provides that, subject to approval by the Board of Directors, option grantees may have the right to exercise an option prior to vesting.

Shares purchased upon the exercise of unvested options will be subject to the same vesting schedule as the underlying options and are subject to repurchase at the original exercise price by Microbia should the employee be terminated or leave Microbia prior to becoming fully vested in such shares.

From time to time, Microbia issues certain time-accelerated stock options awards to certain employees under the Microbia Stock Plan. The vesting of these time-accelerated stock options granted accelerates upon the holder meeting certain performance-based milestones. If these criteria are not met, such options will expire at the end of ten years. At December 31, 2009, 1.7 million shares meeting these criteria had been granted, and options for 0.3 million shares have been cancelled. No time-accelerated stock options have vested as of December 31, 2009.

Typically, option grants, other than performance-based milestones, vest periodically over a period of one to four years and the expense related to these options is being charged to share-based compensation expense over the vesting period of the options on a straight-line basis. Compensation cost of approximately \$0.1 million, \$0.2 million and \$0.1 million was recognized for share-based compensation for the years ended December 31, 2009, 2008 and 2007, respectively.

Microbia recognizes share-based compensation cost related to share-based transactions, including employee stock options, in its financial statements at fair value. In calculating share-based compensation costs, Microbia estimated the fair value of stock options using a Black-Scholes option-pricing model. The Black-Scholes option-pricing model was developed for use in estimating the fair value of short-lived, exchange-traded options that have no vesting restrictions and are fully transferable. Microbia estimates the number of awards that will be forfeited in calculating compensation costs. Such costs are then recognized over the requisite service period of the awards on a straight-line basis.

Determining the fair value of share-based awards using the Black-Scholes option-pricing model requires the use of highly subjective assumptions, including the expected term of the award and expected stock price volatility. The assumptions used to estimate the fair value of the stock options using the Black-Scholes option pricing model were as follows for the years ended December 31, 2009, 2008 and 2007:

|   | Years Ended<br>December 31, |        |        |
|---|-----------------------------|--------|--------|
|   | 2009                        | 2008   | 2007   |
| Weighted-average fair value of common stock | \$0.14                      | \$0.22 | \$0.22 |
| Expected volatility                         | 70.0%                       | 60.0%  | 61.0%  |
| Expected term (in years)                    | 6.0                         | 6.4    | 6.0    |
| Risk-free interest rate                     | 2.31%                       | 2.9%   | 4.1%   |
| Expected dividend yield                     | —%                          | %      | %      |

#### 20. Microbia, Inc. (Continued)

#### Expected Volatility

Volatility measures the amount that a stock price has fluctuated or is expected to fluctuate during a period. As Microbia is not publicly traded and therefore has no trading history, stock price volatility was estimated based on an analysis of historical and implied volatility of comparable public companies.

# Expected Term

Microbia has limited historical information to develop reasonable expectations about future exercise patterns and post-vesting employment termination behavior for its stock option grants. As a result, for stock option grants made during the years ended December 31, 2009, 2008 and 2007, the expected term was estimated using the "simplified method." The simplified method is based on the average of vesting tranches and the contractual life of each grant.

#### Risk-Free Interest Rate

The risk-free interest rate used for each grant is based on a zero-coupon U.S. Treasury instrument with a remaining term similar to the expected term of the share-based award.

### Expected Dividend Yield

Microbia has not paid and does not anticipate paying cash dividends on its shares of common stock in the foreseeable future; therefore, the expected dividend yield is assumed to be zero.

## **Forfeitures**

Forfeitures are estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from Microbia's estimates. Subsequent changes in estimated forfeitures are recognized through a cumulative adjustment in the period of change, and will also impact the amount of share-based compensation expense in future periods. Microbia uses historical data to estimate forfeiture rates. Microbia's forfeiture rates were 6.0%, 1.0% and 5.0% as of December 31, 2009, 2008 and 2007, respectively.

At December 31, 2009, there were 376,157 shares, available for future grant under the Microbia Stock Plan.

# Notes to Consolidated Financial Statements (Continued)

#### 20. Microbia, Inc. (Continued)

The following table summarizes stock option activity under the Microbia Stock Plan, including performance-based options:

|   | Shares of<br>Common<br>Stock<br>Attributable<br>to Options | Weighted-<br>Average<br>Exercise<br>Price | Weighted-<br>Average<br>Contractual<br>Life | Aggregate<br>Intrinsic<br>Value |
|---|--|---|---|---------------------------------|
|   |  |   | (in years)                                  | (in thousands)                  |
| Outstanding at December 31, 2008                | 6,332,500  | \$0.22                                    | 8.50  | \$                              |
| Granted   | 1,562,001  | \$0.14                                    |   |                                 |
| Exercised                                       | _  | \$ —                                      |   |                                 |
| Cancelled                                       | (731,751)  | \$0.21                                    |   |                                 |
| Outstanding at December 31, 2009                | 7,162,750  | \$0.20                                    | 8.49  | <u>\$—</u>                      |
| Vested or expected to vest at December 31, 2009 | 6,831,283  | \$0.21                                    | 4.51  | \$ <u> </u>                     |
| Exercisable at December 31, 2009 <sup>(1)</sup> | 3,619,914  | <u>\$0.21</u>                             | 4.01  | <u>\$</u>                       |

<sup>(1)</sup> All stock options granted contain provisions allowing for the early exercise of such options into restricted stock. The exercisable shares disclosed above represent those that are vested as of December 31, 2009.

The weighted-average grant date fair value of options granted to employees during the years ended December 31, 2009, 2008 and 2007 was \$0.09, \$0.10 and \$0.13, respectively. The total intrinsic value of options exercised during the years ended December 31, 2009 and 2008 was \$0. No options were exercised in the years ended December 31, 2007. At December 31, 2009, all options outstanding had exercise prices equal to or in excess of the fair value of Microbia's common stock.

The grant-date fair value of the options granted to employees during the years ended December 31, 2009, 2008 and 2007 was approximately \$0.1 million, \$0.2 million and \$0.7 million, respectively.

As of December 31, 2009, there was approximately \$0.3 million of total unrecognized share-based compensation, net of estimated forfeitures, related to unvested option grants, including performance-based options, which are expected to be recognized over a weighted-average period of 1.7 years. The total unrecognized share-based compensation cost will be adjusted for future changes in estimated forfeitures.

## Strategic Restructuring Plan

In November 2009, Microbia implemented a strategic restructuring plan that includes an immediate reduction of Microbia's workforce by approximately 40% of its existing workforce, and a reduced workweek for an additional 12% of its existing workforce. Microbia is taking this action to focus on its proprietary strain-development platform and existing service agreements.

In connection with the strategic restructuring plan, Microbia recorded restructuring charges of \$1.2 million in the fourth quarter of 2009.

# Notes to Consolidated Financial Statements (Continued)

#### 20. Microbia, Inc. (Continued)

Provisions associated with the strategic restructuring are included in operating expenses in the consolidated statements of operations. Activities against Microbia's restructuring accrual, which is included in accrued expenses in the consolidated balance sheets, were as follows for the year ended December 31, 2009 (in thousands):

|                      | Balance at<br>December 31,<br>2008 | Provisions | Payments       | Asset<br>Impairments | Balance at<br>December 31,<br>2009 |
|----------------------|------------------------------------|------------|----------------|----------------------|------------------------------------|
| Termination benefits | \$                                 | \$ 287     | \$(285)        | \$ —                 | \$ 2                               |
| Asset impairment     | _                                  | 890        | _              | (890)                | _                                  |
| Other charges        | _                                  | 30         | (30)           |                      |                                    |
| Total                | <u>\$—</u>                         | \$1,207    | <u>\$(315)</u> | <u>\$(890)</u>       | \$ 2                               |

The Company accounts for restructuring charges in accordance with Topic 420 of the Codification, *Exit or Disposal Cost Obligations*. Topic 420 requires that a liability for a cost associated with an exit or disposal activity be recognized and measured initially at its fair value in the period in which the liability is incurred, except for one-time termination benefits that meet specific requirements.

Termination benefits relate to severance and continuation of benefit costs associated with Microbia's workforce reduction.

In connection with Microbia's November 2009 restructuring, Microbia may incur approximately \$0.5 million of additional restructuring costs if Microbia implements an additional reduction in force prior to the earlier of November 5, 2010 or the date that Microbia closes on a new round of financing.

#### 21. Subsequent Events

#### **Initial Public Offering**

In February 2010, the Company completed its initial public offering of Class A common stock pursuant to a Registration Statement on Form S-1, as amended (File No. 333-163275) that was declared effective on February 2, 2010. Under the registration statement, the Company registered the offering and sale of an aggregate of 19,166,667 shares of its Class A common stock. All of the 19,166,667 shares of Class A common stock registered under the registration statement, which included 2,500,000 shares of our Class A common stock sold pursuant to an over-allotment option granted to the underwriters, were sold at a price to the public of \$11.25 per share. J.P. Morgan Securities Inc., Morgan Stanley & Co. Incorporated and Credit Suisse Securities (USA) LLC acted as joint book running managers of the offering and as representatives of the underwriters. The offering commenced on February 3, 2010 and closed on February 8, 2010. The sale of shares pursuant to the over-allotment option occurred on February 12, 2010. As a result of the initial public offering, the Company raised a total of \$215.6 million in gross proceeds, and approximately \$203.1 million in net proceeds after deducting underwriting discounts and commissions of \$10.5 million and estimated offering expenses of \$2.0 million. Costs directly associated with the Company's initial public offering were capitalized and recorded as deferred offering costs prior to the closing of the initial public offering. These costs have been recorded as a reduction of the proceeds received in arriving at the amount to be recorded in additional paid-in capital as of February 8, 2010.

#### 21. Subsequent Events (Continued)

Upon the closing of the initial public offering, 69,904,843 shares outstanding of the Company's convertible preferred stock automatically converted into 70,391,620 shares of its Class B common stock.

Upon the closing of the Company's initial public offering on February 8, 2010, the Company's authorized capital stock will consist of 675,000,000 shares, each with a par value of \$0.001 per share, of which:

- 500,000,000 shares are designated as Class A common stock.
- 100,000,000 shares are designated as Class B common stock.
- 75,000,000 shares are designated as preferred stock.

#### Lease Amendment

On February 9, 2010, the Company entered into a Second Lease Amendment for its 301 Binney Street facility. Under the amended lease the Company, effective as of February 9, 2010, leases an additional 50,000-60,000 square feet of the 301 Binney Street facility, comprised of (a) an initial phase of at least 30,000 square feet (the "Initial Phase"), with rent for such space in the Initial Phase commencing no later than July 1, 2010, and (b) a second phase of up to an additional 30,000 square feet (for total additional space of no less than 50,000 square feet and no more than 60,000 square feet) (the "Second Phase"), with rent for such space in the Second Phase commencing no later than July 1, 2011. The rent for the space in the Initial Phase will be \$42.00 per rentable square foot per year, and the rent for the space in the Second Phase will be \$42.50 per rentable square foot per year. The base rent for the additional space in each of the Initial Phase and the Second Phase will increase annually by \$0.50 per rentable square foot. Under the terms of the Second Lease Amendment, the landlord will provide the Company with a finish work allowance of \$55.00 per rentable square foot of additional space rented in the Initial Phase and the Second Phase. The Amendment does not change the January 31, 2016 expiration date of the original lease.

#### 22. Selected Quarterly Financial Data (Unaudited)

The following table contains quarterly financial information for 2009 and 2008. The Company believes that the following information reflects all normal recurring adjustments necessary for a fair

# 22. Selected Quarterly Financial Data (Unaudited) (Continued)

presentation of the information for the periods presented. The operating results for any quarter are not necessarily indicative of results for any future period.

|  | First<br>Quarter   | Second<br>Quarter  | Third<br>Quarter   | Fourth<br>Quarter  | Total<br>Year   |
|--|--|--|--|--|---|
|  |  | (in thousand   | ls, except per   | share data)  |   |
| 2009   |  |  |  |  |   |
| Total revenues                                   | \$ 5,231   | \$ 6,610   | \$ 15,657  | \$ 8,604   | \$ 36,102   |
| Total expenses and taxes                         | 23,801   | 25,187   | 26,992   | 33,803   | 109,783   |
| Other income (expense), net                      | 170  | (340)  | (86)   | 625  | 369   |
| Net loss   | (18,400)   | (18,917)   | (11,421)   | (24,574)   | (73,312)  |
| Net loss attributable to noncontrolling interest | 432  | 532  | 519  | 644  | 2,127   |
| Net loss attributable to Ironwood                |  |  |  |  |   |
| Pharmaceuticals, Inc                             | (17,968)   | (18,385)   | (10,902)   | (23,930)   | (71,185)  |
| Net loss per share attributable to Ironwood      |  |  |  |  |   |
| Pharmaceuticals, Inc.—basic and diluted          | \$ (2.56)  | \$ (2.61)  | \$ (1.53)  | \$ (3.30)  | \$ (10.00)  |
|  |  |  |  |  |   |
|  | Firet  | Second   | Third  | Fourth   | Total   |
|  | First<br>Quarter   | Second<br>Quarter  | Third<br>Quarter   | Fourth<br>Quarter  | Total<br>Year   |
|  |  | Quarter  |  | Quarter  |   |
| 2008   |  | Quarter  | Quarter  | Quarter  |   |
| <b>2008</b> Total revenues                       |  | Quarter  | Quarter  | Quarter  |   |
|  | Quarter  | Quarter (in thousand   | Quarter<br>ds, except per                                    | Quarter<br>share data)   | Year  |
| Total revenues                                   | <b>Quarter</b> \$ 6,058                                    | Quarter (in thousand \$ 4,556                                  | Quarter ds, except per \$ 6,628                              | Quarter share data) \$ 4,974   | <b>Year</b><br>\$ 22,216                                    |
| Total revenues                                   | Quarter \$ 6,058 17,145                                    | Quarter (in thousand \$ 4,556 18,113                           | Quarter ds, except per \$ 6,628 21,105                       | Quarter share data)  \$ 4,974  | Year<br>\$ 22,216<br>78,137                                 |
| Total revenues                                   | Quarter \$ 6,058 17,145 (397)                              | Quarter (in thousand \$ 4,556 18,113 910                       | Quarter ds, except per  \$ 6,628 21,105 (4,765)              | Quarter share data)  \$ 4,974 21,774 5,142   | Year \$ 22,216 78,137 890                                   |
| Total revenues                                   | Quarter \$ 6,058 17,145 (397) (11,484)                     | Quarter (in thousand \$ 4,556 18,113 910 (12,647)              | Quarter ds, except per  \$ 6,628 21,105 (4,765) (19,242)     | Quarter share data)  \$ 4,974 21,774 5,142 (11,658)                                  | \$ 22,216<br>78,137<br>890<br>(55,031)                      |
| Total revenues                                   | Quarter \$ 6,058 17,145 (397) (11,484)                     | Quarter (in thousand \$ 4,556 18,113 910 (12,647)              | Quarter ds, except per  \$ 6,628 21,105 (4,765) (19,242)     | Quarter share data)  \$ 4,974 21,774 5,142 (11,658)                                  | \$ 22,216<br>78,137<br>890<br>(55,031)                      |
| Total revenues                                   | \$ 6,058<br>17,145<br>(397)<br>(11,484)<br>107<br>(11,377) | Quarter (in thousand \$ 4,556 18,113 910 (12,647) 274 (12,373) | Quarter ds, except per  \$ 6,628 21,105 (4,765) (19,242) 345 | Quarter<br>share data)<br>\$ 4,974<br>21,774<br>5,142<br>(11,658)<br>431<br>(11,227) | \$ 22,216<br>78,137<br>890<br>(55,031)<br>1,157<br>(53,874) |

# **Exhibit Index**

|          |   | Incorporated by reference  | ce herein         |
|----------|---|--|-------------------|
| Number   | Description   | Form   | Date              |
| 3.1*     | Eleventh Amended and Restated<br>Certificate of Incorporation   |  |                   |
| 3.2*     | Fifth Amended and Restated<br>Bylaws  |  |                   |
| 4.1      | Specimen Class A common stock certificate   | Registration Statement on<br>Form S-1, as amended<br>(File No. 333-163275) | January 20, 2010  |
| 4.2      | Eighth Amended and Restated<br>Investors' Rights Agreement,<br>dated as of September 1, 2009, by<br>and among Ironwood<br>Pharmaceuticals, Inc., the<br>Founders and the Investors<br>named therein | Registration Statement on Form S-1, as amended (File No. 333-163275)       | November 20, 2009 |
| 10.1#    | 1998 Amended and Restated<br>Stock Option Plan and form<br>agreements thereunder  | Registration Statement on<br>Form S-1, as amended<br>(File No. 333-163275) | December 23, 2009 |
| 10.2#    | Amended and Restated 2002<br>Stock Incentive Plan and form<br>agreements thereunder   | Registration Statement on<br>Form S-1, as amended<br>(File No. 333-163275) | December 23, 2009 |
| 10.3#    | Amended and Restated 2005<br>Stock Incentive Plan and form<br>agreements thereunder   | Registration Statement on<br>Form S-1, as amended<br>(File No. 333-163275) | January 29, 2010  |
| 10.4#    | 2010 Employee, Director and<br>Consultant Equity Incentive Plan   | Registration Statement on<br>Form S-1, as amended<br>(File No. 333-163275) | January 20, 2010  |
| 10.4.1#* | Form agreement under the 2010<br>Employee, Director and<br>Consultant Equity Incentive Plan   |  |                   |
| 10.5#    | 2010 Employee Stock Purchase Plan   | Registration Statement on Form S-8 (File No. 333-165230)                   | March 5, 2010     |
| 10.6#    | Change of Control Severance<br>Benefit Plan   | Registration Statement on<br>Form S-1, as amended<br>(File No. 333-163275) | December 23, 2009 |
| 10.7#    | Director Compensation Plan  | Registration Statement on<br>Form S-1, as amended<br>(File No. 333-163275) | December 23, 2009 |
| 10.8#    | Consulting Agreement, dated as of November 30, 2009, by and between Christopher Walsh and Ironwood Pharmaceuticals, Inc.  | Registration Statement on<br>Form S-1, as amended<br>(File No. 333-163275) | December 23, 2009 |

| Incorporated | by | reference | herein |
|--------------|----|-----------|--------|
|              |    |           |        |

|          |  | Incorporated by refe   |                   |
|----------|--|--|-------------------|
| Number   | Description  | Form   | Date              |
| 10.9+    | Collaboration Agreement, dated<br>as of September 12, 2007, as<br>amended on November 3, 2009,<br>by and between Forest<br>Laboratories, Inc. and Ironwood<br>Pharmaceuticals, Inc.  | Registration Statement on Form S-1, as amended (File No. 333-163275)       | February 2, 2010  |
| 10.10+   | License Agreement, dated as of<br>April 30, 2009, by and between<br>Almirall, S.A. and Ironwood<br>Pharmaceuticals, Inc.   | Registration Statement on Form S-1, as amended (File No. 333-163275)       | February 2, 2010  |
| 10.11+   | License Agreement, dated as of<br>November 10, 2009, by and<br>among Astellas Pharma, Inc. and<br>Ironwood Pharmaceuticals, Inc.   | Registration Statement on Form S-1, as amended (File No. 333-163275)       | February 2, 2010  |
| 10.12#   | Form of Indemnification Agreement with directors and officers  | Registration Statement on<br>Form S-1, as amended<br>(File No. 333-163275) | December 23, 2009 |
| 10.13    | Terms of Amended and Restated<br>Lease for facilities at 320 Bent<br>St., Cambridge, MA, between<br>registrant and BMR-Rogers<br>Street LLC  | Registration Statement on Form S-1, as amended (File No. 333-163275)       | December 23, 2009 |
| 10.14    | Lease for facilities at 301 Binney<br>St., Cambridge, MA, dated as of<br>January 12, 2007, as amended on<br>April 9, 2009, by and between<br>registrant and BMR-Rogers<br>Street LLC | Registration Statement on Form S-1, as amended (File No. 333-163275)       | December 23, 2009 |
| 10.14.1* | Second Amendment to Lease for<br>facilities at 301 Binney St.,<br>Cambridge, MA, dated as of<br>February 9, 2010, by and between<br>registrant and BMR-Rogers<br>Street LLC          |  |                   |
| 10.15    | Master Security Agreement,<br>dated as of January 16, 2009, by<br>and between Ironwood<br>Pharmaceuticals, Inc. and Oxford<br>Finance Corporation                                    | Registration Statement on Form S-1, as amended (File No. 333-163275)       | December 23, 2009 |
| 21.1     | Subsidiaries of Ironwood Pharmaceuticals, Inc.   | Registration Statement on<br>Form S-1, as amended<br>(File No. 333-163275) | November 20, 2009 |
| 23.1*    | Consent of Independent<br>Registered Public Accounting<br>Firm   |  |                   |

|        |  | Incorporated by reference herein |      |
|--------|--|----------------------------------|------|
| Number | Description  | Form                             | Date |
| 31.1*  | Certification of Chief Executive<br>Officer pursuant to Rules 13a-14<br>or 15d-14 of the Exchange Act  |                                  |      |
| 31.2*  | Certification of Chief Financial<br>Officer pursuant to Rules 13a-14<br>or 15d-14 of the Exchange Act  |                                  |      |
| 32.1‡  | Certification of Chief Executive<br>Officer pursuant to<br>Rules 13a-14(b) or 15d-14(b) of<br>the Exchange Act and 18 U.S.C.<br>Section 1350 |                                  |      |
| 32.2‡  | Certification of Chief Financial<br>Officer pursuant to<br>Rules 13a-14(b) or 15d-14(b) of<br>the Exchange Act and 18 U.S.C.<br>Section 1350 |                                  |      |

<sup>\*</sup> Filed herewith.

- + Confidential treatment requested under 17 C.F.R. §§200.80(b)(4) and 230.406. The confidential portions of this exhibit have been omitted and are marked accordingly. The confidential portions have been filed separately with the SEC pursuant to the confidential treatment request.
- # Management contract or compensatory plan, contract, or agreement.

<sup>‡</sup> Furnished herewith.

# CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the Registration Statements (Form S-8 Nos. 333-165227, 333-165228, 333-165229, 333-165230, and 333-165231) of Ironwood Pharmaceuticals, Inc. of our report dated March 30, 2010, with respect to the consolidated financial statements of Ironwood Pharmaceuticals, Inc. included in this Annual Report (Form 10-K) for the year ended December 31, 2009.

/s/ Ernst & Young LLP

Boston, Massachusetts March 30, 2010

# CERTIFICATION PURSUANT TO RULE 13a-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934

## I, Peter M. Hecht, certify that:

- 1. I have reviewed this Annual Report on Form 10-K of Ironwood Pharmaceuticals, Inc. (the "registrant");
- Based on my knowledge, this report does not contain any untrue statement of a material fact or
  omit to state a material fact necessary to make the statements made, in light of the circumstances
  under which such statements were made, not misleading with respect to the period covered by this
  report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:
  - a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - b. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - c. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):
  - a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

| Date: March 30, 2010    |  |
|-------------------------|--|
| s/ Peter M. Hecht       |  |
| Peter M. Hecht          |  |
| Chief Executive Officer |  |

# CERTIFICATION PURSUANT TO RULE 13a-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934

## I, Michael J. Higgins, certify that:

- 1. I have reviewed this Annual Report on Form 10-K of Ironwood Pharmaceuticals, Inc. (the "registrant");
- Based on my knowledge, this report does not contain any untrue statement of a material fact or
  omit to state a material fact necessary to make the statements made, in light of the circumstances
  under which such statements were made, not misleading with respect to the period covered by this
  report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:
  - a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - b. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - c. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):
  - a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

| Date: March 30, 2010                          |  |
|---|--|
| /s/ MICHAEL J. HIGGINS                        |  |
| Michael J. Higgins<br>Chief Financial Officer |  |

# CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Ironwood Pharmaceuticals, Inc. (the "Company") on Form 10-K for the period ended December 31, 2009 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Peter M. Hecht, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, to my knowledge that:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

#### /s/ PETER M. HECHT

Peter M. Hecht Chief Executive Officer March 30, 2010

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

# CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Ironwood Pharmaceuticals, Inc. (the "Company") on Form 10-K for the period ended December 31, 2009 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Michael J. Higgins, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, to my knowledge that:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

#### /s/ MICHAEL J. HIGGINS

Michael J. Higgins *Chief Financial Officer* March 30, 2010

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.