ACHILLION PHARMACEUTICALS INC
Form 424B5
June 20, 2011
**Table of Contents**

Filed Pursuant to Rule 424(b)(5)
Registration File No. 333-172594

The information in this preliminary prospectus supplement and accompanying prospectus, relating to an effective registration statement under the Securities Act of 1933, is not complete and may be changed. This prospectus supplement and the accompanying prospectus are not an offer to sell these securities and we are not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

Subject to Completion

Preliminary Prospectus Supplement dated June 20, 2011

PROSPECTUS SUPPLEMENT

(to Prospectus dated April 25, 2011)

# 9,000,000 Shares

## Common Stock

We are selling 9,000,000 shares of our common stock.

Our common stock trades on the NASDAQ Global Market under the symbol ACHN. On June 17, 2011, the last reported sale price of our common stock on the NASDAQ Global Market was $6.19 per share.

**Investing in our common stock involves risks that are described in the Risk Factors section beginning on page S-5 of this prospectus supplement.**

| | Per Share | Total |
|---|---|---|
| Public offering price | $ | $ |
| Underwriting discount | $ | $ |
| Proceeds, before expenses, to us | $ | $ |

The underwriters may also exercise their option to purchase up to an additional 1,350,000 shares from us, at the public offering price, less the underwriting discount, for 30 days after the date of this prospectus supplement to cover overallotments, if any.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus supplement or the accompanying prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The shares will be ready for delivery on or about June , 2011.

*Joint Book-Running Managers*

**BofA Merrill Lynch** **Leerink Swann**

The date of this prospectus supplement is June , 2011

Table of Contents

**TABLE OF CONTENTS**

**Prospectus Supplement:**



**Prospectus:**



We have not authorized anyone to provide any information other than that contained or incorporated by reference in this prospectus supplement or the accompanying prospectus or in any free writing prospectus prepared by or on behalf of us that we have authorized for use in connection with this offering. We have not, and the underwriters have not, authorized anyone to provide you with different information. We and the underwriters take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. We are not, and the underwriters are not, making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus supplement, the accompanying prospectus, the documents incorporated by reference in this prospectus supplement and the accompanying prospectus, and in any free writing prospectus prepared by or on behalf of us that we have authorized for use in connection with this offering is accurate only as of the date of those respective documents. Our business, financial condition, results of operations and prospects may have changed since those dates. You should read this prospectus supplement, the accompanying prospectus, the documents incorporated by reference in this prospectus supplement and the accompanying prospectus, and any free writing prospectus prepared by or on behalf of us that we have authorized for use in connection with this offering, in their entirety before making an investment decision. You should also read and consider the information in the documents we have referred you to in the sections of this prospectus supplement entitled Where You Can Find More Information and Incorporation of Certain Information by Reference.

Table of Contents

## ABOUT THIS PROSPECTUS SUPPLEMENT

This document is in two parts. The first part is this prospectus supplement, which describes the terms of this offering of common stock and also adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference into this prospectus supplement and the accompanying prospectus. The second part, the accompanying prospectus dated April 25, 2011, including the documents incorporated by reference therein, provides more general information, some of which may not apply to the securities offered by this prospectus supplement. Generally, when we refer to this prospectus, we are referring to both parts of this document combined. To the extent there is a conflict between the information contained in this prospectus supplement, on the one hand, and the information contained in the accompanying prospectus or in any document incorporated by reference that was filed with the Securities and Exchange Commission, or SEC, before the date of this prospectus supplement, on the other hand, you should rely on the information in this prospectus supplement. If any statement in one of these documents is inconsistent with a statement in another document having a later date for example, a document incorporated by reference in the accompanying prospectus the statement in the document having the later date modifies or supersedes the earlier statement.

All references in this prospectus supplement and the accompanying prospectus to Achillion, the Company, we, us, our, or similar references refer to Achillion Pharmaceuticals, Inc., unless the context requires otherwise.

Table of Contents

## PROSPECTUS SUPPLEMENT SUMMARY

*This summary highlights information contained elsewhere or incorporated by reference in this prospectus supplement and the accompanying prospectus. This summary does not contain all of the information that you should consider before deciding to invest in our common stock. You should read carefully this entire prospectus supplement and the accompanying prospectus and any free writing prospectus that we have authorized for use in connection with this offering, including the Risk Factors section beginning on page S-5 of this prospectus supplement and our consolidated financial statements and the related notes and the other documents incorporated by reference in this prospectus supplement and the accompanying prospectus.*

### Achillion Pharmaceuticals, Inc.

We are a biopharmaceutical company focused on the discovery, development and commercialization of innovative treatments for infectious diseases. Within the anti-infective market, we are currently concentrating on the development of antivirals for the treatment of chronic hepatitis C virus, or HCV, and the development of antibacterials for the treatment of resistant bacterial infections. We are currently focusing our efforts on developing several drug candidates for the treatment of chronic HCV:

- ACH-1625, a protease inhibitor for the treatment of chronic HCV currently being tested in an on-going phase IIa clinical trial;
- ACH-2684, a pangenotypic protease inhibitor for the treatment of chronic HCV infection currently in a phase I clinical trial;
- NS5A inhibitors for the treatment of chronic HCV infection, including ACH-2928, currently being prepared to enter a phase I clinical trial, and several additional NS5A inhibitors currently in preclinical development.

We have established our current drug candidate pipeline primarily through our internal discovery capabilities except for elvucitabine, our HIV drug candidate, which we in-licensed. Through these efforts we have identified and are developing the following drug candidates and programs:

**ACH-1625, a Protease Inhibitor for Chronic HCV Infection.** We are developing ACH-1625, a protease inhibitor for the treatment of chronic HCV. We are currently conducting a phase IIa clinical trial in both the United States and Europe to assess the compound s safety, tolerability, pharmacokinetic properties and efficacy in HCV-infected subjects. In preclinical studies, ACH-1625 demonstrated strong potency, liver partitioning and a good safety profile. In phase Ia and phase Ib clinical trials, ACH-1625 was demonstrated to be safe and well-tolerated at total daily doses ranging from 50mg to 2000mg. Further, ACH-1625 significantly reduced viral load in HCV patients by 3.40 $\log_{10}$ to 4.25 $\log_{10}$ at doses ranging from 200 to 600 mg twice daily and 400 and 600 mg once daily. Results from the first 28-day segment of the phase IIa trial demonstrated that 75-81% of patients receiving ACH-1625 in combination with pegylated interferon alfa-2a and ribavirin achieved rapid virologic response, or RVR, with a promising safety and tolerability profile. Viral load was reduced in HCV patients by 4.63 $\log_{10}$ to 4.96 $\log_{10}$ at doses ranging from 200 to 800 mg once daily. A second 12-week segment of this phase IIa trial is on-going.

**ACH-2684, a High-Potency Protease Inhibitor for Chronic HCV Infection.** We are developing ACH-2684 for the treatment of chronic HCV infection. In preclinical studies, ACH-2684 has demonstrated excellent potency in the picomolar range, as well as good pharmacokinetic and safety profiles. The potency and virology profiles of ACH-2684 demonstrate that it effectively suppresses

Table of Contents

a broad range of natural variants of HCV, and may be effective in the prevention and treatment of emerging resistant variants. This compound also retains potent *in vitro* activity against all known HCV genotypes. The very high potency of ACH-2684 was achieved by designing the compound to optimize the way in which it binds with NS3 protease. In preclinical studies, ACH-2684 was effective in combination with other HCV inhibitors, and *in vitro* is synergistic with NS5B nucleoside polymerase inhibitors. We have initiated a phase I clinical trial for ACH-2684.

**NS5A Inhibitors for Chronic HCV Infection.** We are progressing selected NS5A inhibitors for the treatment of chronic HCV infection, including ACH-2928, a lead compound in our portfolio of NS5A inhibitors, as well as ACH-3080, ACH-3102 and ACH-3107, preclinical candidates with improved virology profiles in the replicon assay. In early preclinical studies, these compounds demonstrate excellent potency against HCV RNA replication, as well as good pharmacokinetic and safety profiles. These compounds are highly active and potent against HCV genotypes 1a and 1b, as well as across other genotypes. We believe their high potency, in the picomolar range, and their favorable pharmacokinetic properties, strongly suggest once-daily dosing. Importantly, NS5A inhibitors are highly effective in combination with NS3 protease inhibitors, NS5B polymerase inhibitors, interferon and ribavirin. We are currently preparing to begin a phase I clinical trial for ACH-2928. We will select an optimal NS5A inhibitor for clinical testing in a combination regimen based upon its virology and safety characteristics, and other business considerations.

**Other drug candidates.** We have also established a pipeline of other product candidates for which we have or are currently seeking appropriate collaborative partners, but to which we are not devoting significant resources at this time: ACH-702 and ACH-2881 for drug resistant bacterial infections, elvucitabine for HIV infection, and ACH-1095 for HCV infection for which Gilead Sciences, Inc. ( Gilead ) retains certain future development rights.

**Our Strategy**

Our objective is to become a leading infectious disease-focused biopharmaceutical company. In order to achieve our objective, we intend to:

*Advance the Development of Our HCV Drug Candidates*. We plan to:

- complete phase IIa clinical testing of ACH-1625 in the next 12 months;
- establish clinical proof-of-concept for ACH-2684 and ACH-2928 in the next 12 months;
- advance one or more additional HCV NS5A inhibitors to clinical development in the next 12 months; and
- initiate clinical testing of a proprietary combination regimen consisting of a protease inhibitor plus an NS5A inhibitor in 2012.

*Accelerate Growth Through Selective Collaborations*. We intend to establish strategic collaborations where we believe we can accelerate the development or maximize the value of our drug candidates by (i) accessing additional drug candidates that may be combinable with our drug candidates for the future treatment of chronic HCV infection, or (ii) utilizing the financial, clinical development, manufacturing and/or commercialization strengths of leading biotechnology, pharmaceutical companies or regional institutions. For example, in the past we have entered into collaborations with Gilead to develop and commercialize certain of our HCV compounds demonstrating a mechanism of action we call NS4A antagonism, and with GCA Therapeutics Ltd. to develop and commercialize elvucitabine in China. We continue to seek similar partnership arrangements for elvucitabine in other geographic locations, and are seeking appropriate development partners for ACH-702 for dermatologic and ophthalmic uses, and for ACH-2881 for

Table of Contents

serious resistant bacterial infections. We have established a subcommittee of our Board to consider and evaluate business development, financing and other strategic transactions presented to us. We may also seek to accelerate program development through affiliations with governmental, educational or other not-for-profit funding sources.

*Expand our Infectious Disease Portfolio*. We intend to leverage our expertise in synthetic chemistry, virology and microbiology to quickly and efficiently discover and develop additional anti-infective compounds. Our research team has discovered multiple clinical candidates in multiple infectious disease programs. For example, in our HCV NS4A program we discovered both ACH-806, a discontinued drug candidate, and ACH-1095, its successor compound with a similar mechanism of action. In our HCV protease program, we discovered both ACH-1625 and ACH-2684. In our HCV NS5A program we discovered ACH-2928, as well as several preclinical stage compounds, and in our antibacterial program, we discovered ACH-702 and ACH-2881.

**Corporate Information**

We were incorporated in Delaware in August 1998. Our principal executive office is located at 300 George Street, New Haven, Connecticut 06511, and our telephone number is (203) 624-7000. Our internet address is *www.achillion.com*. The information on our web site is not incorporated by reference into this prospectus and should not be considered to be a part of this prospectus. Our internet address is included in this prospectus as an inactive technical reference only.

Our trademarks and service marks include, among others, Achillion®. Other service marks, trademarks and trade names appearing in this annual report are the properties of their respective owners.

Table of Contents

**The Offering**

| | |
|---|---|
| Common stock offered | 9,000,000 shares |
| Common stock to be outstanding immediately after this offering | 67,506,504 shares |
| Use of proceeds | We intend to use the net proceeds from this offering to continue clinical testing of ACH-1625 and ACH-2684, to advance ACH-2928 into clinical trials, to progress additional NS5A HCV drug candidates and for general corporate expenses. Pending the application of the net proceeds, we intend to invest the net proceeds in short-term investment-grade, interest-bearing securities. See Use of Proceeds. |
| Risk factors | Investing in our common stock involves a high degree of risk. See Risk Factors beginning on page S-5 and other information included and incorporated by reference in this prospectus supplement for a discussion of factors you should carefully consider before deciding to invest in our common stock. |
| Market for the common stock | Our common stock is listed on the NASDAQ Global Market under the symbol ACHN. |

The number of shares of our common stock to be outstanding after this offering is based on 58,506,504 shares outstanding as of June 1, 2011. Unless specifically stated otherwise, the information in this prospectus supplement excludes:

- 5,779,192 shares of common stock issuable upon the exercise of stock options outstanding as of June 1, 2011, at a weighted average exercise price of $3.71 per share;
- 1,151,311 shares of our common stock available for future issuance as of June 1, 2011 under our 2006 stock incentive plan;
- 234,478 shares of our common stock available for future issuance as of June 1, 2011 under our 2006 employee stock purchase plan; and
- 9,663,517 shares of common stock issuable upon the exercise of warrants outstanding as of June 1, 2011, at a weighted average exercise price of $3.25 per share.

Except as otherwise indicated, all information in the prospectus supplement assumes no exercise by the underwriters of their option to purchase additional shares to cover overallotments, if any.

Table of Contents

## RISK FACTORS

*Investing in our securities involves a high degree of risk and uncertainty. In addition to the other information included or incorporated by reference in this prospectus supplement, the accompanying prospectus and in any free writing prospectus that we have authorized for use in connection with this offering, you should carefully consider the risks described in this Risk Factors section, before making an investment decision with respect to this offering. If any of such risks and uncertainties actually occurs, our business, financial condition, and results of operations could be severely harmed. This could cause the trading price of our common stock to decline, and you could lose all or part of your investment.*

### Risks Related to Our Business

***We depend on the success of our HCV drug candidates, which are still under development.***

We have invested a significant portion of our efforts and financial resources in the development of our candidates for the treatment of chronic HCV infection, including our protease inhibitors, ACH-1625 and ACH-2684 and our NS5A inhibitors, ACH-2928 and related compounds. Our ability to generate revenues will depend heavily on the successful development and commercialization of these drug candidates. The development and commercial success of these drug candidates will depend on several factors, including the following:

- our ability to provide acceptable evidence of the safety and efficacy of these drug candidates in current and future clinical trials;
- our ability to develop drug formulations that will deliver the appropriate drug exposures in longer term clinical trials;
- our ability to obtain patent protection for our drug candidates and freedom to operate under third party intellectual property;
- receipt of marketing approvals from the FDA and similar foreign regulatory authorities;
- establishing commercial manufacturing arrangements with third-party manufacturers;
- launching commercial sales of the drugs, whether alone or in collaboration with others;
- acceptance of the drug in the medical community and with third-party payors; and
- our ability to identify, enter into and maintain collaboration agreements with appropriate strategic partners for our compounds.

We are currently conducting a phase IIa clinical trial for ACH-1625 and a phase I trial for ACH-2684. We submitted an IND application for ACH-2928 in April 2011 and are preparing to initiate clinical testing of ACH-2928. Positive results in preclinical studies of a drug candidate may not be predictive of similar results in human clinical trials, and promising results from early clinical trials of a drug candidate may not be replicated in later clinical trials. A number of companies in the pharmaceutical and biotechnology industries have suffered significant setbacks in late-stage clinical trials even after achieving promising results in early-stage development. Accordingly, the results from the preclinical studies of ACH-1625, ACH-2684 or ACH-2928 or the completed clinical trials for ACH-1625 may not be predictive of the results we may obtain in later stage trials.

We do not expect any of our drug candidates to be commercially available for at least several years, if at all.

Table of Contents

***We have a limited operating history and have incurred a cumulative loss since inception. If we do not generate significant revenues, we will not be profitable.***

We have incurred significant losses since our inception in August 1998. As of March 31, 2011, our accumulated deficit was approximately $242.0 million. We have not generated any revenue from the sale of drug candidates to date. We expect that our annual operating losses will increase over the next several years as we expand our research, development and commercialization efforts.

To become profitable, we must successfully develop and obtain regulatory approval for our drug candidates and effectively manufacture, market and sell any drug candidates we develop. Accordingly, we may never generate significant revenues and, even if we do generate significant revenues, we may never achieve profitability.

***Our market is subject to intense competition. If we are unable to compete effectively, our drug candidates may be rendered noncompetitive or obsolete.***

We are engaged in segments of the pharmaceutical industry that are highly competitive and rapidly changing. Many large pharmaceutical and biotechnology companies, academic institutions, governmental agencies and other public and private research organizations are pursuing the development of novel drugs that target infectious diseases. We face, and expect to continue to face, intense and increasing competition as new products enter the market and advanced technologies become available. In addition to currently approved drugs, there are a significant number of drugs that are currently under development and may become available in the future for the treatment of chronic HCV. Additionally, there may be competitive drugs currently under development of which we are not aware. We would expect our drug candidates to compete with the following approved drugs and drug candidates currently under development:

If approved, our protease inhibitors, ACH-1625 and ACH-2684, and our NS5A inhibitors, ACH-2928 and related compounds, would compete with drugs currently approved for the treatment of HCV, i.e., the interferon-alpha-based products from Roche (Pegasys and Roferon-A) or Merck (Intron-A or Peg-Intron), the ribavirin based products from Merck (Rebetrol), Roche (Copegus) or generic versions sold by various companies, as well as recently-approved protease inhibitors teleprevir (Incivek) by Vertex and boceprevir (Vicetrelis) by Merck. In addition, our HCV compounds may compete with the interferon and ribavirin-based drugs currently in development such as Valeant s ribavirin analog (Viramidine) and Human Genome Sciences Albuferon, and with other products in development in multiple classes including protease inhibitors, polymerase inhibitors (nucleoside and non-nucleoside), NS5A inhibitors, toll-like receptors and cyclophilin inhibitors are also under development for the treatment of HCV by companies such as Abbott, Anadys, Astra-Zeneca, Avila Therapeutics, Boehringer Ingelheim, Bristol-Myers Squibb, Enanta, Gilead, GlaxoSmithKline, Human Genome Sciences, Idenix, Johnson & Johnson, Presidio, Medivir, Merck, Novartis, Pfizer, Pharmasset, Roche, Valeant and Vertex.

Many of our competitors have:

- significantly greater financial, technical and human resources than we have and may be better equipped to discover, develop, manufacture and commercialize drug candidates;
- more extensive experience in preclinical testing and clinical trials, obtaining regulatory approvals and manufacturing and marketing pharmaceutical products;
- drug candidates that have been approved or are in late-stage clinical development; and/or
- collaborative arrangements in our target markets with leading companies and research institutions.

Competitive products may render our products obsolete or noncompetitive before we can recover the expenses of developing and commercializing our drug candidates. Furthermore, the development of new

Table of Contents

treatment methods and/or the widespread adoption or increased utilization of any vaccine for the diseases we are targeting could render our drug candidates noncompetitive, obsolete or uneconomical. If we successfully develop and obtain approval for our drug candidates, we will face competition based on the safety and effectiveness of our drug candidates, the timing of their entry into the market in relation to competitive products in development, the availability and cost of supply, marketing and sales capabilities, reimbursement coverage, price, patent position and other factors. If we successfully develop drug candidates but those drug candidates do not achieve and maintain market acceptance, our business will not be successful.

***We will need substantial additional capital to fund our operations, including drug candidate development, manufacturing and commercialization. If we do not have or cannot raise additional capital when needed, we will be unable to develop and commercialize our drug candidates successfully, and our ability to operate as a going concern may be adversely affected.***

We believe that our existing cash and cash equivalents and the anticipated net proceeds from this offering will be sufficient to support our current operating plan for at least the next 12 months. Our operating plan may change as a result of many factors, including:

- the costs involved in the clinical development, manufacturing and formulation of our protease inhibitors, ACH-1625 and ACH-2684, and our NS5A inhibitors, ACH-2928 and related compounds;
- our ability to enter into corporate collaborations and the terms and success of these collaborations;
- the costs involved in obtaining regulatory approvals for our drug candidates;
- the scope, prioritization and number of programs we pursue;
- the costs involved in preparing, filing, prosecuting, maintaining, enforcing and defending patent and other intellectual property claims;
- our ability to raise incremental debt or equity capital, including any changes in the credit market that may impact our ability to obtain capital in the future;
- our acquisition and development of new technologies and drug candidates; and
- competing technological and market developments currently unknown to us.

If our operating plan changes, we may need additional funds sooner than planned. Such additional financing may not be available when we need it or may not be available on terms that are favorable to us. In addition, we may seek additional capital due to favorable market conditions or strategic considerations, even if we believe we have sufficient funds for our current or future operating plans. If adequate funds are not available to us on a timely basis, or at all, we may be required to terminate or delay preclinical studies, clinical trials or other development activities for one or more of our drug candidates.

We may seek additional financing through a combination of private and public equity offerings, debt financings and collaboration, strategic alliance and licensing arrangements. To the extent that we raise additional capital through the sale of equity or convertible debt securities your ownership interest will be diluted, and the terms may include adverse liquidation or other preferences that adversely affect your rights as a stockholder. Since August 2008, we have issued an aggregate of 42,306,006 shares of our common stock in two private placements and one public offering as well as warrants to purchase an aggregate of 9,599,950 shares of our common stock, all of which remain outstanding. These financings substantially diluted our existing stockholders.

Stockholders will be further diluted if, and to the extent, any warrants are exercised. Debt financing, if available, may involve covenants that limit or restrict our ability to take specific actions such as incurring

Table of Contents

additional debt, making capital expenditures or declaring dividends, or may involve immediate repayment of the debt under certain circumstances. If we raise additional funds through collaborations, strategic alliances and licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies or drug candidates, or grant licenses on terms that are not favorable to us.

***If we are not able to attract and retain key management, scientific personnel and advisors, we may not successfully develop our drug candidates or achieve our other business objectives.***

We depend upon our senior management and scientific staff for our business success. Key members of our senior team include Michael Kishbauch, our president and chief executive officer, and Dr. Milind Deshpande, our president of research and development and chief scientific officer. All of our employment agreements with our senior management employees are terminable without notice by the employee. The loss of the service of any of the key members of our senior management may significantly delay or prevent the achievement of drug development and other business objectives. Our ability to attract and retain qualified personnel, consultants and advisors is critical to our success. We face intense competition for qualified individuals from numerous pharmaceutical and biotechnology companies, universities, governmental entities and other research institutions. We may be unable to attract and retain these individuals, and our failure to do so would adversely affect our business.

***Our business has a substantial risk of product liability claims. If we are unable to obtain appropriate levels of insurance, a product liability claim could adversely affect our business.***

Our business exposes us to significant potential product liability risks that are inherent in the development, manufacturing and sales and marketing of human therapeutic products. Although we do not currently commercialize any products, claims could be made against us based on the use of our drug candidates in clinical trials. Product liability claims could delay or prevent completion of our clinical development programs. We currently have clinical trial insurance in an amount equal to up to $10.0 million in the aggregate and will seek to obtain product liability insurance prior to the sales and marketing of any of our drug candidates. However, our insurance may not provide adequate coverage against potential liabilities. Furthermore, clinical trial and product liability insurance is becoming increasingly expensive. As a result, we may be unable to maintain current amounts of insurance coverage or obtain additional or sufficient insurance at a reasonable cost to protect against losses that could have a material adverse effect on us. If a claim is brought against us, we might be required to pay legal and other expenses to defend the claim, as well as uncovered damages awards resulting from a successful claim. Furthermore, whether or not we are ultimately successful in defending any such claims, we might be required to direct significant financial and managerial resources to such defense, and adverse publicity is likely to result.

**Risks Related to the Development of Our Drug Candidates**

***All of our drug candidates are still in the early stages of development and remain subject to clinical testing and regulatory approval. If we are unable to successfully develop, test and commercialize our drug candidates, we will not be successful.***

To date, we have not commercially marketed, distributed or sold any drug candidates. The success of our business depends primarily upon our ability to develop and commercialize our drug candidates successfully. Our drug candidates must satisfy rigorous standards of safety and efficacy before they can be approved for sale. To satisfy these standards, we must engage in expensive and lengthy testing and obtain regulatory approval of our drug candidates. Despite our efforts, our drug candidates may not:

- offer therapeutic or other improvement over existing, comparable drugs;
- be proven safe and effective in clinical trials;

Table of Contents

have the desired effects, or may include undesirable effects or may have other unexpected characteristics;

meet applicable regulatory standards;

be capable of being produced in commercial quantities at acceptable costs; or

be successfully commercialized.

In addition, we may experience numerous unforeseen events during, or as a result of, preclinical testing and the clinical trial process that could delay or prevent our ability to receive regulatory approval or commercialize our drug candidates, including:

regulators or Institutional Review Boards, or IRBs, may not authorize us to commence a clinical trial or conduct a clinical trial at a prospective trial site;

our preclinical tests or clinical trials for our drug candidates may produce negative or inconclusive results, and we may decide, or regulators may require us, to conduct additional preclinical testing or clinical trials, or we may abandon projects that we expect to be promising;

enrollment in our clinical trials may be slower than we currently anticipate or participants may drop out of our clinical trials at a higher rate than we currently anticipate, resulting in significant delays;

our third-party contractors may fail to comply with regulatory requirements or meet their contractual obligations to us in a timely manner;

we might have to suspend or terminate our clinical trials if the participants are exposed to unacceptable health risks;

IRBs or regulators, including the FDA, may require that we hold, suspend or terminate clinical research for various reasons, including noncompliance with regulatory requirements;

the FDA, in connection with future HCV development guidelines recently circulated for comment, may require us to carry out more extensive studies, evaluate different treatment combinations or complete comparative effectiveness studies, resulting in significant delays and/or increased costs; and

the supply or quality of our drug candidates or other materials necessary to conduct our clinical trials may be insufficient or inadequate.

In addition, in the Phase IIa clinical study currently on-going, ACH-1625 is being studied in combination with the current standard of care. Recently approved therapies, including teleprevir (Incivek) and boceprivir (Victrelis) could, in time, result in a change to the standard of care which may require us to carry out more extensive studies, evaluate different treatment combinations or complete comparative effectiveness studies, resulting in significant delays and/or increased costs.

We, and a number of other companies in the pharmaceutical and biotechnology industries, have suffered significant setbacks in later stage clinical trials even after achieving promising results in early-stage development.

Table of Contents

***If we are unable to obtain U.S. and/or foreign regulatory approval, we will be unable to commercialize our drug candidates.***

Our drug candidates are subject to extensive governmental regulations relating to, among other things, research, testing, development, manufacturing, safety, efficacy, record keeping, labeling, marketing and distribution of drugs. Rigorous preclinical testing and clinical trials and an extensive regulatory approval process are required in the United States and in many foreign jurisdictions prior to the commercial sale of our drug candidates. Satisfaction of these and other regulatory requirements is costly, time consuming, uncertain and subject to unanticipated delays. It is possible that none of the drug candidates we are developing will obtain marketing approval. In connection with the clinical trials for ACH-1625, ACH-2684, ACH-2928, and any other drug candidate we may seek to develop in the future, we face risks that:

- the drug candidate may not prove to be efficacious;
- the drug may not prove to be safe;
- the results may not confirm the positive results from earlier preclinical studies or clinical trials;
- the results may not meet the level of statistical significance required by the FDA or other regulatory agencies; and
- the FDA or other regulatory agencies may require us to carry out additional studies.

We have limited experience in conducting and managing the clinical trials necessary to obtain regulatory approvals, including approval by the FDA. The time required to complete clinical trials and for FDA and other countries regulatory review processes is uncertain and typically takes many years. Our analysis of data obtained from preclinical and clinical activities is subject to confirmation and interpretation by regulatory authorities, which could delay, limit or prevent regulatory approval. We may also encounter unanticipated delays or increased costs due to government regulation from future legislation or administrative action or changes in FDA policy during the period of product development, clinical trials and FDA regulatory review.

Any delay in obtaining or failure to obtain required approvals could materially adversely affect our ability to progress the development of a drug candidate and to generate revenues from that drug candidate. Any regulatory approval to market a product may be subject to limitations on the indicated uses for which we may market the product and affect reimbursement by third-party payors. These limitations may limit the size of the market for the product. We are also subject to numerous foreign regulatory requirements governing the conduct of clinical trials, manufacturing and marketing authorization, pricing and third-party reimbursement. The foreign regulatory approval process includes all of the risks associated with FDA approval described above as well as risks attributable to the satisfaction of foreign regulations. Approval by the FDA does not ensure approval by regulatory authorities outside the United States. Foreign jurisdictions may have different approval procedures than those required by the FDA and may impose additional testing requirements for our drug candidates.

***If clinical trials for our drug candidates are prolonged or delayed, we may be unable to commercialize our drug candidates on a timely basis, which would require us to incur additional costs and delay our receipt of any product revenue.***

We cannot predict whether we will encounter problems with any of our completed, ongoing or planned clinical trials that will cause us or regulatory authorities to delay, suspend or terminate clinical trials, or delay the analysis of data from our completed or ongoing clinical trials. Any of the following could delay the clinical development of our drug candidates:

- ongoing discussions with the FDA or comparable foreign authorities regarding the scope or design of our clinical trials;
- delays in receiving, or the inability to obtain, required approvals from institutional review boards or other reviewing entities at clinical sites selected for participation in our clinical trials;

Table of Contents

delays in enrolling volunteers and patients into clinical trials;

a lower than anticipated retention rate of volunteers and patients in clinical trials;

delays in gathering and interpreting clinical data;

the need to repeat clinical trials as a result of inconclusive or negative results or unforeseen complications in testing;

the requirement by the FDA, in connection with future HCV development guidelines recently circulated for comment, to carry out additional studies;

delays in completing formulation development of our drug candidates, or delays in planning and executing the bridging studies required to use the new formulations in subsequent clinical trials;

inadequate supply or deficient quality of drug candidate materials or other materials necessary to conduct our clinical trials;

unfavorable FDA inspection and review of a clinical trial site or records of any clinical or preclinical investigation;

serious and unexpected drug-related side effects experienced by participants in our clinical trials; or

the placement by the FDA of a clinical hold on a trial.

Our ability to enroll patients in our clinical trials in sufficient numbers and on a timely basis will be subject to a number of factors, including the size of the patient population, the nature of the protocol, the proximity of patients to clinical sites, the availability of effective treatments for the relevant disease and the eligibility criteria for the clinical trial. Delays in patient enrollment may result in increased costs and longer development times. We currently face competition for subjects to enroll in our ACH-1625 and ACH-2684 clinical trials and may have to expand the number of sites at which the trials are conducted. If we are not successful in doing so, the planned timing for release of data from these trials may not be achieved. In addition, subjects may drop out of our clinical trials, and thereby impair the validity or statistical significance of the trials.

We, the FDA or other applicable regulatory authorities may suspend clinical trials of a drug candidate at any time if we or they believe the subjects or patients participating in such clinical trials are being exposed to unacceptable health risks or for other reasons. For example, as we advance ACH-1625 into longer term clinical trials in Phase IIa, we have established predetermined stopping rules, as well as a Data Safety Monitoring Board (DSMB) in order to monitor and ensure patient safety. The FDA has also required us to perform data analysis between patient cohorts in our phase I clinical trials of ACH-2684 and ACH-2928**.** Any interruption of these clinical trials, whether as a result of one of our drug candidates, of co-administration of the standard of care, or of administrative review delays on the part of the FDA, could cause delays in our drug development.

We cannot predict whether any of our drug candidates will encounter problems during clinical trials which will cause us or regulatory authorities to delay or suspend these trials, or which will delay the analysis of data from these trials. In addition, it is impossible to predict whether legislative changes will be enacted, or whether FDA regulations, guidance or interpretations will be changed, or what the impact of such changes, if any, may be. If we experience any such problems, we may not have the financial resources to continue development of the drug candidate that is affected or the development of any of our other drug candidates.

In addition, we, along with our collaborators or subcontractors, may not employ, in any capacity, persons who have been debarred under the FDA s Application Integrity Policy. Employment of such a debarred person (even if inadvertently) may result in delays in the FDA s review or

approval of our products, or the rejection of data developed with the involvement of such persons.

Table of Contents

***Even if we obtain regulatory approvals, our drug candidates will be subject to ongoing regulatory review. If we fail to comply with continuing U.S. and applicable foreign regulations, we could lose those approvals, and our business would be seriously harmed.***

Even if we receive regulatory approval of any drugs we are developing or may develop, we will be subject to continuing regulatory review, including the review of clinical results which are reported after our drug candidates become commercially available approved drugs. As greater numbers of patients use a drug following its approval, side effects and other problems may be observed after approval that were not seen or anticipated during pre-approval clinical trials. In addition, the manufacturer, and the manufacturing facilities we use to make any approved drugs, will also be subject to periodic review and inspection by the FDA. The subsequent discovery of previously unknown problems with the drug, manufacturer or facility may result in restrictions on the drug, manufacturer or facility, including withdrawal of the drug from the market. If we fail to comply with applicable continuing regulatory requirements, we may be subject to fines, suspension or withdrawal of regulatory approval, product recalls and seizures, operating restrictions and criminal prosecutions.

Our product promotion and advertising is also subject to regulatory requirements and continuing regulatory review. In particular, the marketing claims we will be permitted to make in labeling or advertising regarding our marketed products will be limited by the terms and conditions of the FDA-approved labeling. We must submit copies of our advertisements and promotional labeling to the FDA at the time of initial publication or dissemination. If the FDA believes these materials or statements promote our products for unapproved indications, or with unsubstantiated claims, or if we fail to provide appropriate safety-related information, the FDA could allege that our promotional activities misbrand our products. Specifically, the FDA could issue a warning letter, which may demand, among other things, that we cease such promotional activities and issue corrective advertisements and labeling. The FDA also could take enforcement action including seizure of allegedly misbranded product, injunction or criminal prosecution against us and our officers or employees. If we repeatedly or deliberately fail to submit such advertisements and labeling to the agency, the FDA could withdraw our approvals. Moreover, the Department of Justice can bring civil or criminal actions against companies that promote drugs or biologics for unapproved uses, based on the False Claims Act and other federal laws governing reimbursement for such products under the Medicare, Medicaid and other federally supported healthcare programs. Monetary penalties in such cases have often been substantial, and civil penalties can include costly mandatory compliance programs and exclusion from federal healthcare programs.

***If we do not comply with laws regulating the protection of the environment and health and human safety, our business could be adversely affected.***

Our research and development efforts involve the controlled use of hazardous materials, chemicals and various radioactive compounds. Although we believe that our safety procedures for the use, manufacture, storage, handling and disposing of these materials comply with the standards prescribed by federal, state and local laws and regulations, the risk of accidental contamination or injury from these materials cannot be eliminated. If an accident occurs, we could be held liable for resulting damages, which could be substantial. We are also subject to numerous environmental, health and workplace safety laws and regulations, including those governing laboratory procedures, exposure to blood-borne pathogens and the handling of biohazardous materials.

Additional federal, state and local laws and regulations affecting our operations may be adopted in the future. Although we maintain workers compensation insurance to cover us for costs we may incur due to injuries to our employees resulting from the use of these materials, this insurance may not provide adequate coverage against potential liabilities. In addition, though we have environmental liability insurance, such coverage may not provide for all related losses. We may incur substantial costs to comply with, and substantial fines or penalties, if we violate any of these laws or regulations.

Table of Contents

**Risks Related to Our Dependence on Third Parties**

***We may not be able to execute our business strategy if we are unable to enter into alliances with other companies that can provide capabilities and funds for the development and commercialization of our drug candidates. If we are unsuccessful in forming or maintaining these alliances on favorable terms, our business may not succeed.***

We have entered into arrangements with Gilead for the development and commercialization of certain of our HCV compounds involving NS4A antagonism, and with GCA Therapeutics, Ltd., or GCAT, for the development and commercialization of elvucitabine in mainland China, Hong Kong, and Taiwan. We may enter into additional license arrangements in the future. We also may enter into alliances with major biotechnology or pharmaceutical companies to jointly develop other specific drug candidates and to jointly commercialize them if they are approved. In such alliances, we would expect our biotechnology or pharmaceutical collaborators to provide substantial funding, as well as significant capabilities in clinical development, regulatory affairs, marketing and sales. We may not be successful in entering into any such alliances on favorable terms, if at all. Even if we do succeed in securing such alliances, we may not be able to maintain them if, for example, development or approval of a drug candidate is delayed or sales of an approved drug are disappointing. Furthermore, any delay in entering into collaboration agreements could delay the development and commercialization of our drug candidates and reduce their competitiveness even if they reach the market. Any such delay related to our collaborations could adversely affect our business. At this time, we do not plan to clinically advance elvucitabine or our antibacterial drug candidates, ACH-702 and ACH-2881, independently.

***We rely on third parties to conduct our clinical trials, and those third parties may not perform satisfactorily, including failing to meet established deadlines for the completion of such trials.***

We do not have the ability to independently conduct clinical trials for our drug candidates, and we rely on third parties such as contract research organizations, medical institutions and clinical investigators to enroll qualified patients and conduct our clinical trials. Our reliance on these third parties for clinical development activities reduces our control over these activities. These third-party contractors may not complete activities on schedule, or may not conduct our clinical trials in accordance with regulatory requirements or our trial design. To date, we believe our contract research organizations and other similar entities with which we are working have performed well. However, if these third parties do not successfully carry out their contractual duties or meet expected deadlines, we may be required to replace them. Although we believe that there are a number of other third-party contractors we could engage to continue these activities, it may result in a delay of the affected trial. Accordingly, our efforts to obtain regulatory approvals for and commercialize our drug candidates may be delayed.

***We currently depend on third-party manufacturers to produce our preclinical and clinical drug supplies and intend to rely upon third-party manufacturers to produce commercial supplies of any approved drug candidates. We also depend on third parties to assist us in developing appropriate formulations of our drug candidates. If, in the future, we manufacture any of our drug candidates, we will be required to incur significant costs and devote significant efforts to establish and maintain these capabilities.***

We rely upon third parties to produce material for preclinical and clinical testing purposes and intend to continue to do so in the future. We also depend on third parties to assist us in developing appropriate formulations of our drug candidates. We also expect to rely upon third parties to produce materials required for the commercial production of our drug candidates if we succeed in obtaining necessary regulatory approvals. If we are unable to arrange for third-party manufacturing, or to do so on commercially reasonable terms, we may not be able to complete development of our drug candidates or market them. Further, if third parties are not successful in formulation development of our drug candidates, our development timelines may be delayed. Reliance on third-party manufacturers entails risks to which we would not be subject if we manufactured drug candidates ourselves, including reliance on the third party for regulatory compliance and quality assurance, the

Table of Contents

possibility of breach of the manufacturing agreement by the third party because of factors beyond our control and the possibility of termination or nonrenewal of the agreement by the third party, based on its own business priorities, at a time that is costly or damaging to us. In addition, the FDA and other regulatory authorities require that our drug candidates be manufactured according to current good manufacturing practice regulations. Any failure by us or our third-party manufacturers to comply with current good manufacturing practices and/or our failure to scale up our manufacturing processes could lead to a delay in, or failure to obtain, regulatory approval of any of our drug candidates. In addition, such failure could be the basis for action by the FDA to withdraw approvals for drug candidates previously granted to us and for other regulatory action.

To date, our third-party formulators and manufacturers have met our formulation and manufacturing requirements, but we cannot be assured that they will continue to do so. Any performance failure on the part of our existing or future formulators or manufacturers could delay clinical development or regulatory approval of our drug candidates or commercialization of any approved products. If for some reason our current contractors cannot perform as agreed, we may be required to replace them. Although we believe that there are a number of potential replacements given our formulation and manufacturing processes are not contractor specific, we may incur added costs and delays in identifying and qualifying any such replacements. Furthermore, although we generally do not begin a clinical trial unless we believe we have a sufficient supply of a drug candidate to complete the trial, any significant delay in the supply of a drug candidate for an ongoing trial due to the need to replace a third-party manufacturer could delay completion of the trial.

We may in the future elect to manufacture certain of our drug candidates in our own manufacturing facilities. If we do so, we will require substantial additional funds and need to recruit qualified personnel in order to build or lease and operate any manufacturing facilities.

**Risks Related to Commercialization of Our Drug Candidates**

***If we are unable to establish sales and marketing capabilities or enter into agreements with third parties to market and sell our drug candidates, we may not generate product revenue.***

We have no commercial products, and we do not currently have an organization for the sales and marketing of pharmaceutical products. In order to successfully commercialize any drugs that may be approved in the future by the FDA or comparable foreign regulatory authorities, we must build our sales and marketing capabilities or make arrangements with third parties to perform these services. For certain drug candidates in selected indications where we believe that an approved product could be commercialized by a specialty North American sales force that calls on a limited but focused group of physicians, we intend to commercialize these products ourselves. However, in therapeutic indications that require a large sales force selling to a large and diverse prescribing population and for markets outside of North America, we plan to enter into arrangements with other companies for commercialization. For example, we have entered into an agreement with Gilead for the development and commercialization of certain of our HCV candidates involving NS4A antagonism. If we are unable to establish adequate sales, marketing and distribution capabilities, whether independently or with third parties, we may not be able to generate product revenue and may not become profitable.

***The development of directly acting antivirals (DAAs) to treat HCV, and the potential changes in market dynamics that may result from their introduction for HCV therapy, may present additional risks beyond those inherent in drug development.***

We are developing multiple DAA compounds, in two distinct classes, for treatment of chronic HCV infection. Other companies are also developing DAAs in these classes, as well as other classes. The current standard of care for HCV infection includes immunomodulatory therapy with pegylated interferon and ribavirin.

The development plans for our compounds include treatment regimens with our inhibitors in combination with the current standard of care (pegylated interferon and ribavirin), our inhibitors with the current

Table of Contents

standard of care plus another DAA, or our inhibitors with one or more DAAs without concomitant interferon or ribavirin therapy. These development programs carry all the risks inherent in drug development activities, including the risk that they will fail to show efficacy or acceptable safety. In addition, these development programs may also be subject to additional regulatory, commercial and manufacturing risks that may be additional to the risks inherent in drug development activities.

Regulatory guidelines for approval of DAA drugs for the treatment of chronic HCV infection are evolving in the United States, Europe, and other countries. We anticipate that regulatory guidelines and regulatory agency responses to our and our competitors development programs will continue to change, resulting in the risk that our activities may not meet unanticipated new standards or requirements, which could lead to delay, additional expense, or potential failure of development activities.

Furthermore, even if we or our competitors successfully develop DAAs whose use improves the current standard of care, current HCV-treating physicians, HCV patients, healthcare payers, and others may not readily accept or pay for such improvements or new treatments. Two DAAs developed by our competitors, teleprevir (Incivek) by Vertex and boceprevir (Victrelis) by Merck, were recently approved by the FDA. We cannot currently predict with any certainty the impact of the commercial launch of these compounds on the HCV market.

In addition, because development of DAAs for HCV infection is an emerging field, the delay or failure of a competitor attempting to develop therapeutics that could have been combined with our product candidates or that are perceived to be similar to our product candidates could have a significant adverse effect on the commercial or regulatory environment for our product candidates or on the price of our stock. Other companies developing DAAs have more advanced development programs than we do. Their success or failure to successfully conclude clinical development and obtain marketing approval could have a material adverse effect on our development and commercialization plans and activities.

***If physicians and patients do not accept our future drugs, we may be unable to generate significant revenue, if any.***

Even if ACH-1625, ACH-2684, ACH-2928, or any other drug candidates we may develop or acquire in the future obtain regulatory approval, they may not gain market acceptance among physicians, health care payors, patients and the medical community. Factors that we believe could materially affect market acceptance of our product candidates include:

- the timing of market introduction of competitive drugs, including teleprevir (Incivek) by Vertex and boceprevir (Victrelis) by Merck, which were recently approved by the FDA;
- the demonstrated clinical safety and efficacy of our product candidates compared to other drugs;
- the cost-effectiveness of our product candidates;
- the availability of reimbursement from managed care plans, the government and other third-party payors;
- the convenience and ease of administration of our product candidates;
- the existence, prevalence and severity of adverse side effects;
- other potential advantages of alternative treatment methods; and
- the effectiveness of marketing and distribution support.

Table of Contents

If our approved drugs fail to achieve market acceptance, we would not be able to generate significant revenue.

***If we are unable to meet the operational, legal and financial challenges that we encounter with international partnerships, we may not be able to grow our business.***

We entered into an agreement with GCAT which grants GCAT, through its Chinese joint venture with Tianjing Institute of Pharmaceutical Research, the right to clinically develop and commercialize elvucitabine in mainland China, Hong Kong and Taiwan. Conducting business in China exposes us to a variety of risks and uncertainties that are unique to China. The economy of China has been transitioning from a planned economy to a market-oriented economy. Although in recent years the Chinese government has implemented measures emphasizing the utilization of market forces for economic reform, the reduction of state ownership of productive assets and the establishment of sound corporate governance in business enterprises, a substantial portion of productive assets in China is still owned by the Chinese government. In addition, the Chinese government continues to play a significant role in regulating industrial development. It also exercises significant control over China s economic growth through the allocation of resources, controlling payment of foreign currency-denominated obligations, setting monetary policy and providing preferential treatment to particular industries or companies. Efforts by the Chinese government to slow the pace of growth of the Chinese economy could result in interruptions of our development and commercialization efforts in China. In addition, the Chinese legal system is a civil law system based on written statutes. Unlike common law systems, it is a system in which decided legal cases have little precedential value. In 1979, the Chinese government began to promulgate a comprehensive system of laws and regulations governing economic matters in general. Accordingly, we cannot predict the effect of future developments in the Chinese legal system, including the promulgation of new laws, changes to existing laws or the interpretation or enforcement thereof, or the preemption of local regulations by national laws. Our development and commercialization efforts in China could be materially harmed by any changes in the political, legal or economic climate in China or the inability to enforce applicable Chinese laws and regulations. If such commercialization efforts in China are materially harmed, our collaboration partner may not be able to develop and commercialize elvucitabine in China and our elvucitabine business may not grow.

***If third-party payors do not adequately reimburse patients for any of our drug candidates that are approved for marketing, they might not be purchased or used, and our revenues and profits will not develop or increase.***

Our revenues and profits will depend significantly upon the availability of adequate reimbursement for the use of any approved drug candidates from governmental and other third-party payors, both in the United States and in foreign markets. Reimbursement by a third party may depend upon a number of factors, including the third-party payor s determination that use of a product is:

- a covered benefit under its health plan;
- safe, effective and medically necessary;
- appropriate for the specific patient;
- cost effective; and
- neither experimental nor investigational.

Obtaining reimbursement approval for a product from each third-party and government payor is a time-consuming and costly process that could require us to provide supporting scientific, clinical and cost-effectiveness data for the use of any approved drugs to each payor. We may not be able to provide data sufficient to gain acceptance with respect to reimbursement. There also exists substantial uncertainty concerning third-party

Table of Contents

reimbursement for the use of any drug candidate incorporating new technology, and even if determined eligible, coverage may be more limited than the purposes for which the drug is approved by the FDA. Moreover, eligibility for coverage does not imply that any drug will be reimbursed in all cases or at a rate that allows us to make a profit or even cover our costs. Interim payments for new products, if applicable, may also be insufficient to cover our costs and may not be made permanent. Reimbursement rates may vary according to the use of the drug and the clinical setting in which it is used, may be based on payments allowed for lower-cost products that are already reimbursed, may be incorporated into existing payments for other products or services, and may reflect budgetary constraints and/or imperfections in Medicare or Medicaid data used to calculate these rates. Net prices for products may be reduced by mandatory discounts or rebates required by government health care programs or by any future relaxation of laws that restrict imports of certain medical products from countries where they may be sold at lower prices than in the United States.

In the United States, at both the federal and state levels, the government regularly proposes legislation to reform health care and its cost, and such proposals have received increasing political attention. Congress recently passed legislation to reform the U.S. health care system by expanding health insurance coverage, reducing health care costs and making other changes. While health care reform may increase the number of patients who have insurance coverage for the use of any approved drug candidate, it may also include changes that adversely affect reimbursement for approved drug candidates. In addition, there has been, and we expect that there will continue to be, federal and state proposals to constrain expenditures for medical products and services, which may affect payments for any of our approved products. The Centers for Medicare and Medicaid Services frequently change product descriptors, coverage policies, product and service codes, payment methodologies and reimbursement values. Third-party payors often follow Medicare coverage policy and payment limitations in setting their own reimbursement rates and may have sufficient market power to demand significant price reductions. As a result of actions by these third-party payors, the health care industry is experiencing a trend toward containing or reducing costs through various means, including lowering reimbursement rates, limiting therapeutic class coverage and negotiating reduced payment schedules with service providers for drug products.

Our inability to promptly obtain coverage and profitable reimbursement rates from government-funded and private payors for any approved products could have a material adverse effect on our operating results and our overall financial condition.

***Healthcare reform measures, if implemented, could hinder or prevent our commercial success.***

There have been, and likely will continue to be, legislative and regulatory proposals at the federal and state levels directed at broadening the availability of healthcare and containing or lowering the cost of healthcare. We cannot predict the initiatives that may be adopted in the future. The continuing efforts of the government, insurance companies, managed care organizations and other payors of healthcare services to contain or reduce costs of healthcare may adversely affect:

- the demand for any drug products for which we may obtain regulatory approval;
- our ability to set a price that we believe is fair for our products;
- our ability to generate revenues and achieve or maintain profitability;
- the ability of government agencies to continue to pay for such care;
- the level of taxes that we are required to pay; and
- the availability of capital.

Table of Contents

**Risks Related to Patents and Licenses**

***If our patent position does not adequately protect our drug candidates, others could compete against us more directly, which would harm our business.***

We own or hold exclusive licenses to several issued patents U.S. and pending U.S. provisional and non-provisional patent applications, as well as pending PCT applications and associated non-US patents and patent applications. Our success depends in large part on our ability to obtain and maintain patent protection both in the United States and in other countries for our drug candidates. Our ability to protect our drug candidates from unauthorized or infringing use by third parties depends in substantial part on our ability to obtain and maintain valid and enforceable patents. Due to evolving legal standards relating to the patentability, validity and enforceability of patents covering pharmaceutical inventions and the scope of claims made under these patents, our ability to maintain, obtain and enforce patents is uncertain and involves complex legal and factual questions. Accordingly, rights under any issued patents may not provide us with sufficient protection for our drug candidates or provide sufficient protection to afford us a commercial advantage against competitive products or processes. We cannot guarantee that any patents will issue from any pending or future patent applications owned by or licensed to us.

Even if patents have issued or will issue, we cannot guarantee that the claims of these patents are or will be valid or enforceable or will provide us with any significant protection against competitive products or otherwise be commercially valuable to us. Patent applications in the United States are maintained in confidence for up to 18 months after their filing. In some cases, however, patent applications remain confidential in the U.S. Patent and Trademark Office, which we refer to as the U.S. Patent Office, for the entire time prior to issuance as a U.S. patent. Similarly, publication of discoveries in the scientific or patent literature often lag behind actual discoveries. Consequently, we cannot be certain that we or our licensors or co-owners were the first to invent, or the first to file patent applications on, our drug candidates or their use as anti-infective drugs. In the event that a third party has also filed a U.S. patent application relating to our drug candidates or a similar invention, we may have to participate in interference proceedings declared by the U.S. Patent Office to determine priority of invention in the United States. The costs of these proceedings could be substantial and it is possible that our efforts would be unsuccessful, resulting in a loss of our U.S. patent position. Furthermore, we may not have identified all U.S. and foreign patents or published applications that affect our business either by blocking our ability to commercialize our drugs or by covering similar technologies that affect our drug market.

The HCV inhibitor space is particularly crowded in terms of intellectual property, and we are aware that certain competitors such as Merck, Vertex, AstraZeneca, Bayer, Gilead Sciences and Bristol-Myers Squibb, have disclosed compounds that may be prior art to our patent applications and prevent issuance or alter the scope of any claims that we may pursue related to our drug candidates. For example, with regard to ACH-2928, we are aware that this compound and closely related inhibitors have been disclosed in published patent applications and ultimately could be deemed to constitute prior art. These competitive activities may substantially impact our ability to obtain patent protection on our lead drug candidates and/or to commercialize such drug candidates in the absence of patent rights from one or more third parties.

The claims of the issued patents that are licensed to us, and the claims of any patents which may issue in the future and be owned by or licensed to us, may not confer on us significant commercial protection against competing products. Additionally, our patents may be challenged by third parties, resulting in the patent being deemed invalid, unenforceable or narrowed in scope, or the third party may circumvent any such issued patents. Also, our pending patent applications may not issue, and we may not receive any additional patents. Our patents might not contain claims that are sufficiently broad to prevent others from utilizing our technologies. For instance, the issued patents relating to our drug candidates may be limited to a particular molecule. Consequently, our competitors may independently develop competing products that do not infringe our patents or other intellectual property. To the extent a competitor can develop similar products using a different molecule, our patents may not prevent others from directly competing with us.

Table of Contents

The laws of some foreign jurisdictions do not protect intellectual property rights to the same extent as in the United States and many companies have encountered significant difficulties in protecting and defending such rights in foreign jurisdictions. If we encounter such difficulties in protecting or are otherwise precluded from effectively protecting our intellectual property rights in foreign jurisdictions, our business prospects could be substantially harmed.

Because of the extensive time required for development, testing and regulatory review of a potential product, it is possible that, before any of our drug candidates can be commercialized, any related patent may expire or remain in force for only a short period following commercialization of our drug candidates, thereby reducing any advantages of the patent. To the extent our drug candidates based on that technology are not commercialized significantly ahead of the date of any applicable patent, or to the extent we have no other patent protection on such product candidates, those drug candidates would not be protected by patents, and we would then rely solely on other forms of exclusivity, such as regulatory exclusivity provided by the Federal Food, Drug and Cosmetic Act or trade secret protection.

***We license patent rights from third-party owners. If such owners do not properly maintain or enforce the patents underlying such licenses, our competitive position and business prospects will be harmed.***

We are party to a number of licenses that give us rights to third-party intellectual property that is necessary or useful for our business. In particular, we have obtained a sublicense from Vion Pharmaceuticals and a license from Emory University with respect to elvucitabine. We may enter into additional licenses for third-party intellectual property in the future. Our success will depend in part on the ability of our licensors to obtain, maintain and enforce patent protection for their intellectual property, in particular, those patents to which we have secured exclusive rights. Our licensors may not successfully prosecute the patent applications to which we are licensed. Even if patents issue in respect of these patent applications, our licensors may fail to maintain these patents, may determine not to pursue litigation against other companies that are infringing these patents, or may pursue such litigation less aggressively than we would. In addition, our licensors may terminate their agreements with us in the event we breach the applicable license agreement and fail to cure the breach within a specified period of time. Without protection for the intellectual property we license, other companies might be able to offer substantially identical products for sale, which could adversely affect our competitive business position and harm our business prospects.

Because our research and development of drug candidates incorporates compounds and other information that is the intellectual property of third parties, we depend on continued access to such intellectual property to conduct and complete our preclinical and clinical research and commercialize the drug candidates that result from this research. Some of our existing licenses impose, and we expect that future licenses would impose, numerous obligations on us. For example, under our existing and future license agreements, we may be required to pay minimum annual royalty amounts and/or payments upon the achievement of specified milestones. We may also be required to reimburse patent costs incurred by the licensor, or we may be obligated to pay additional royalties, at specified rates, based on net sales of our product candidates that incorporate the licensed intellectual property rights. We may also be obligated under some of these agreements to pay a percentage of any future sublicensing revenues that we may receive. Future license agreements may also include payment obligations such as milestone payments or minimum expenditures for research and development. In addition to our payment obligations under our current licenses, we are required to comply with reporting, insurance and indemnification requirements under the agreements. We expect that any future licenses would contain similar requirements.

If we fail to comply with these obligations or otherwise breach a license agreement, the licensor may have the right to terminate the license in whole, terminate the exclusive nature of the license or bring a claim against us for damages. Any such termination or claim could prevent or impede our ability to market any drug that is covered by the licensed intellectual property. Even if we contest any such termination or claim and are ultimately successful, our financial results and stock price could suffer. In addition, upon any termination of a

Table of Contents

license agreement, we may be required to grant to the licensor a license to any related intellectual property that we developed. For example, the Licensors have the right to terminate our license of the intellectual property covered by its licenses to us under certain circumstances, including our failure to make payments to the Licensor when due and our uncured breach of any other terms of the licenses. If access to such intellectual property is terminated, or becomes more expensive as a result of renegotiation of any of our existing license agreements, our ability to continue development of our product candidates or the successful commercialization of our drug candidates could be severely compromised and our business could be adversely affected.

In addition, under the Bayh-Dole Act, the federal government has certain rights to the technology licensed to us from Emory University.

***If we infringe or are alleged to infringe intellectual property rights of third parties, our business could be harmed.***

Our research, development and commercialization activities, including any drug candidates resulting from these activities, may infringe or be claimed to infringe patents or other proprietary rights owned by third parties and to which we do not hold licenses or other rights. There may be applications that have been filed but not published that, if issued, could be asserted against us. We are aware that certain third parties, including BMS, Gilead, GlaxoSmithKline plc and Enanta Pharmaceuticals, Inc. ( Enanta ), have applications that are broadly directed to HCV inhibitors. Certain of these third parties, in particular Gilead and Enanta, have patent applications with pending claims that, if issued, could be construed to encompass our drug candidate, ACH-2928. These third parties could bring claims against us that would cause us to incur substantial expenses and, if successful against us, could cause us to pay substantial damages. Further, if a patent infringement suit were brought against us, we could be forced to stop or delay research, development, manufacturing or sales of the drug or drug candidate that is the subject of the suit.

As a result of intellectual property infringement claims, or in order to avoid potential claims, we may choose or be required to seek a license from the third party. These licenses may not be available on acceptable terms, or at all. Even if we are able to obtain a license, the license would likely obligate us to pay license fees or royalties or both, and the rights granted to us might be nonexclusive, which could result in our competitors gaining access to the same intellectual property. Ultimately, we could be prevented from commercializing a product, or be forced to cease some aspect of our business operations, if, as a result of actual or threatened patent infringement claims, we are unable to enter into licenses on acceptable terms. All of the issues described above could also affect our potential collaborators to the extent we have any collaborations then in place, which would also affect the success of the collaboration and therefore us.

There has been substantial litigation and other proceedings regarding patent and other intellectual property rights in the pharmaceutical and biotechnology industries. In addition to infringement claims against us, we may become a party to other patent litigation and other proceedings, including interference proceedings declared by the U. S. Patent and Trademark Office and opposition proceedings in the European Patent Office, regarding intellectual property rights with respect to our product candidates and technology. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could have a material adverse effect on our ability to compete in the marketplace.

***Litigation regarding patents, patent applications and other proprietary rights may be expensive and time consuming. If we are involved in such litigation, it could cause delays in bringing drug candidates to market and harm our ability to operate.***

Our success will depend in part on our ability to operate without infringing the proprietary rights of third parties. Although we are not currently aware of any litigation or other proceedings or third-party claims of intellectual property infringement related to our drug candidates, the pharmaceutical industry is characterized by extensive litigation regarding patents and other intellectual property rights. Other parties may obtain patents in the future and allege that the use of our technologies infringes these patent claims or that we are employing their proprietary technology without authorization. Likewise, third parties may challenge or infringe upon our existing

Table of Contents

or future patents. Under our license agreements with Vion Pharmaceuticals we have the right, but not an obligation, to bring actions against an infringing third party. If we do not bring an action within a specified number of days, the licensor may bring an action against the infringing party. Pursuant to our license agreement with Emory University and our research collaboration and license agreement with Gilead Sciences, Emory and Gilead have the primary right, but not an obligation, to bring actions against an infringing third party. However, if Gilead or Emory elects not to bring an action, we may bring an action against the infringing party.

Proceedings involving our patents or patent applications or those of others could result in adverse decisions regarding:

- the patentability of our inventions relating to our drug candidates; and/or
- the enforceability, validity or scope of protection offered by our patents relating to our drug candidates.

Even if we are successful in these proceedings, we may incur substantial costs and divert management time and attention in pursuing these proceedings, which could have a material adverse effect on us. If we are unable to avoid infringing the patent rights of others, we may be required to seek a license, defend an infringement action or challenge the validity of the patents in court. Patent litigation is costly and time consuming. We may not have sufficient resources to bring these actions to a successful conclusion. In addition, if we do not obtain a license, develop or obtain non-infringing technology, fail to defend an infringement action successfully or have infringed patents declared invalid, we may:

- incur substantial monetary damages;
- encounter significant delays in bringing our drug candidates to market; and/or
- be precluded from participating in the manufacture, use or sale of our drug candidates or methods of treatment requiring licenses.

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, during the course of this kind of litigation, there could be public announcements of the results of hearings, motions or other interim proceedings or developments. If investors perceive these results to be negative, the market price for our common stock could be significantly harmed.

***Because of the relative weakness of the Chinese legal system in general, and the intellectual property rights in particular, we may not be able to enforce intellectual property rights in China.***

The legal regime protecting intellectual property rights in China is weak. Because the Chinese legal system in general, and the intellectual property regime in particular, are relatively weak, it is often difficult to create and enforce intellectual property rights in China. Accordingly, we may not be able to effectively protect our intellectual property rights in China under the GCAT agreement.

***We rely on our ability to stop others from competing by enforcing our patents, however some jurisdictions may require us to grant licenses to third parties. Such compulsory licenses could be extended to include some of our product candidates, which may limit our potential revenue opportunities.***

Many foreign countries, including certain countries in Europe, have compulsory licensing laws under which a patent owner may be compelled to grant licenses to third parties. In addition, most countries limit the enforceability of patents against government agencies or government contractors. In these countries, the patent owner may be limited to monetary relief and may be unable to enjoin infringement, which could materially

Table of Contents

diminish the value of the patent. Compulsory licensing of life-saving products is also becoming increasingly popular in developing countries, either through direct legislation or international initiatives. Such compulsory licenses could be extended to include some of our product candidates, which may limit our potential revenue opportunities.

***The rights we rely upon to protect our unpatented trade secrets may be inadequate.***

We rely on unpatented trade secrets, know-how and technology, which are difficult to protect, especially in the pharmaceutical industry, where much of the information about a product must be made public during the regulatory approval process. We seek to protect trade secrets, in part, by entering into confidentiality agreements with employees, consultants and others. These parties may breach or terminate these agreements, or may refuse to enter into such agreements with us, and we may not have adequate remedies for such breaches. Furthermore, these agreements may not provide meaningful protection for our trade secrets or other proprietary information or result in the effective assignment to us of intellectual property, and may not provide an adequate remedy in the event of unauthorized use or disclosure of confidential information or other breaches of the agreements. Despite our efforts to protect our trade secrets, we or our collaboration partners, board members, employees, consultants, contractors or scientific and other advisors may unintentionally or willfully disclose our proprietary information to competitors.

If we fail to maintain trade secret protection, our competitive position may be adversely affected. Competitors may also independently discover our trade secrets. Enforcement of claims that a third party has illegally obtained and is using trade secrets is expensive, time consuming and uncertain. If our competitors independently develop equivalent knowledge, methods and know-how, we would not be able to assert our trade secrets against them and our business could be harmed.

***Confidentiality agreements with employees and others may not adequately prevent disclosure of trade secrets and other proprietary information and may not adequately protect our intellectual property.***

We rely on trade secrets to protect our technology, especially where we do not believe patent protection is appropriate or obtainable. However, trade secrets are difficult to protect. In order to protect our proprietary technology and processes, we also rely in part on confidentiality and intellectual property assignment agreements with our corporate partners, employees, consultants, outside scientific collaborators and sponsored researchers and other advisors. These agreements may not effectively prevent disclosure of confidential information nor result in the effective assignment to us of intellectual property, and may not provide an adequate remedy in the event of unauthorized disclosure of confidential information or other breaches of the agreements. In addition, others may independently discover our trade secrets and proprietary information, and in such case we could not assert any trade secret rights against such party. Enforcing a claim that a party illegally obtained and is using our trade secrets is difficult, expensive and time consuming, and the outcome is unpredictable. In addition, courts outside the United States may be less willing to protect trade secrets. Costly and time-consuming litigation could be necessary to seek to enforce and determine the scope of our proprietary rights, and failure to obtain or maintain trade secret protection could adversely affect our competitive business position.

**Risks Relating to Our Securities and this Offering**

***We may be required to dilute our existing stockholders further in connection with capital raising activities. Additionally, the market price of our common stock may fall due to the increased number of shares available in the public market.***

In connection with capital raising activities, we may be required to dilute our existing stockholders substantially. For example, in August 2010, we issued an aggregate of 19,775,101 shares of our common stock, plus common stock warrants to purchase a total of 6,921,286 additional shares of common stock in a private placement. In January and February 2010, we issued an aggregate of 11,816,250 shares of our common stock in

Table of Contents

an underwritten offering. Additionally, in August 2008, we issued 10,714,655 shares of our common stock, plus common stock warrants to purchase a total of 2,678,664 additional shares of common stock in a private placement. Stockholders will be further diluted if, and to the extent, any investors exercise their warrants. The issuance of these shares and warrants resulted in substantial dilution to stockholders who held our common stock prior to the issuance. All of the shares of common stock we issued, as well as those shares issuable upon exercise of the warrants, are freely tradable pursuant to registration statements filed with the SEC that were declared effective by the SEC on September 30, 2010, October 16, 2009 and October 30, 2008, making such shares available for immediate resale in the public market.

In addition, amounts remain available for the future issuance of common stock, preferred stock and/or warrants that we may issue from time to time under the shelf registration statement on Form S-3 of which this prospectus supplement is a part. If we issue additional securities pursuant to this shelf registration statement, these securities would be available for immediate resale in the public market.

The market price of our common stock could fall due to an increase in the number of shares available for sale in the public market.

***Our executive officers, directors and principal stockholders own a large percentage of our voting common stock and could limit our stockholders influence on corporate decisions or could delay or prevent a change in corporate control.***

As of June 17, 2011, our directors, executive officers and current holders of more than 5% of our outstanding common stock, together with their affiliates and related persons, beneficially own, in the aggregate, approximately 71% of our outstanding common stock. As a result, these stockholders, if acting together, have the ability to determine the outcome of all matters submitted to our stockholders for approval, including the election and removal of directors and any merger, consolidation or sale of all or substantially all of our assets and other extraordinary transactions. The interests of this group of stockholders may not always coincide with our corporate interests or the interest of other stockholders, and they may act in a manner with which you may not agree or that may not be in the best interests of other stockholders. This concentration of ownership may have the effect of:

- delaying, deferring or preventing a change in control of our company;
- entrenching our management and/or board;
- impeding a merger, consolidation, takeover or other business combination involving our company; or
- discouraging a potential acquirer from making a tender offer or otherwise attempting to obtain control of our company.

***Our stock price is likely to be volatile, and the market price of our common stock may decline in value in the future.***

The market price of our common stock has fluctuated in the past and is likely to fluctuate in the future. During the period from January 1, 2007 to June 17, 2011, our stock price has ranged from a low of $0.68 to a high of $19.61. Market prices for securities of early stage pharmaceutical, biotechnology and other life sciences companies have historically been particularly volatile. Some of the factors that may cause the market price of our common stock to fluctuate include:

- the results of our planned clinical trials of our protease inhibitors, ACH-1625 and ACH-2684 and our NS5A inhibitors, ACH-2928 and related compounds;
- the entry into, modification of, or termination of key agreements, or any new collaboration agreement we may enter;

Table of Contents

- the results of regulatory reviews relating to the approval of our drug candidates;
- our failure to obtain patent protection for any of our drug candidates or the issuance of third party patents that cover our drug candidates;
- the initiation of, material developments in, or conclusion of litigation to enforce or defend any of our intellectual property rights;
- failure of any of our drug candidates, if approved, to achieve commercial success;
- general and industry-specific economic conditions that may affect our research and development expenditures;
- the results of clinical trials conducted by others on drugs that would compete with our drug candidates;
- the launch of drugs by others that would compete with our drug candidates;
- the failure or discontinuation of any of our research programs;
- issues in manufacturing our drug candidates or any approved products;
- the introduction of technological innovations or new commercial products by us or our competitors;
- changes in estimates or recommendations by securities analysts, if any, who cover our common stock;
- future sales of our common stock;
- changes in the structure of health care payment systems;
- period-to-period fluctuations in our financial results; and
- low trading volume of our common stock.

In addition, if we fail to reach an important research, development or commercialization milestone or result by a publicly expected deadline, even if by only a small margin, there could be significant impact on the market price of our common stock. Additionally, as we approach the announcement of important clinical data or other significant information and as we announce such results and information, we expect the price of our common stock to be particularly volatile, and negative results would have a substantial negative impact on the price of our common stock.

The stock markets in general have experienced substantial volatility that has often been unrelated to the operating performance of individual companies. These broad market fluctuations may adversely affect the trading price of our common stock.

In the past, following periods of volatility in the market price of a company s securities, stockholders have often instituted class action securities litigation against those companies. Such litigation, if instituted, could result in substantial costs and diversion of management attention and resources, which could significantly harm our business operations and reputation.

***Unstable market and economic conditions may have serious adverse consequences on our business.***

Our general business strategy may be adversely affected by the recent economic downturn and volatile business environment and continued unpredictable and unstable market conditions. If the current equity and credit markets deteriorate further, or do not improve, it may make any necessary debt or equity financing more difficult, more costly, and more dilutive. Failure to secure any necessary financing in a timely manner and on

Table of Contents

favorable terms could have a material adverse effect on our growth strategy, financial performance and stock price and could require us to delay or abandon clinical development plans. In addition, there is a risk that one or more of our current service providers, manufacturers and other partners may not survive these difficult economic times, which would directly affect our ability to attain our operating goals on schedule and on budget.

***Our management is required to devote substantial time and incur additional expense to comply with public company regulations. Our failure to comply with such regulations could subject us to public investigations, fines, enforcement actions and other sanctions by regulatory agencies and authorities and, as a result, our stock price could decline in value.***

As a public company, the Sarbanes-Oxley Act of 2002 and the related rules and regulations of the SEC, as well as the rules of the NASDAQ Global Market, have required us to implement additional corporate governance practices and adhere to a variety of reporting requirements and complex accounting rules. Compliance with these public company obligations places significant additional demands on our limited number of finance and accounting staff and on our financial, accounting and information systems.

In particular, as a public company, our management is required to conduct an annual evaluation of our internal controls over financial reporting and include a report of management on our internal controls in our annual reports on Form 10-K. If we are unable to continue to conclude that we have effective internal controls over financial reporting or, if our independent auditors are unable to provide us with an attestation and an unqualified report as to the effectiveness of our internal controls over financial reporting, investors could lose confidence in the reliability of our financial statements, which could result in a decrease in the value of our common stock.

***We do not anticipate paying cash dividends, and accordingly stockholders must rely on stock appreciation for any return on their investment in us.***

We anticipate that we will retain our earnings, if any, for future growth and therefore do not anticipate paying cash dividends in the future. As a result, only appreciation of the price of our common stock will provide a return to stockholders.

***Management will have broad discretion as to the use of proceeds from this offering, and we may use the proceeds in ways that you and other stockholders may not approve.***

Our management will have broad discretion to allocate the net proceeds from this offering, and investors will be relying on the judgment of our management regarding the use of these proceeds. Our management could spend the net proceeds in ways that you and other stockholders may not approve or in ways that do not improve our results of operations or enhance the value of our common stock. Our failure to apply these funds effectively could have a material adverse effect on the development of ACH-1625, ACH-2684, ACH-2928 or any of our other product candidates or programs, or otherwise on our business or financial condition, and cause the price of our common stock to decline.

***You will experience immediate dilution in the book value per share of the common stock you purchase***

If you purchase common stock in this offering, you will incur an immediate and substantial dilution in net tangible book value of $4.81 per share, after giving effect to the assumed sale by us of 9,000,000 shares in this offering at the assumed public offering price of $6.19 per share, which was the last reported sale price of our common stock on the NASDAQ Global Market on June 17, 2011. In the past, we have issued options and warrants to acquire common stock at prices significantly below this offering price. To the extent these outstanding options and warrants are ultimately exercised, you will incur additional dilution. See Dilution for a more detailed discussion of the dilution you will incur in connection with this offering.

Table of Contents

## SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement and the documents we incorporate by reference in this prospectus supplement include forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, which we refer to as the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, which we refer to as the Exchange Act. For purposes of these statutes, any statement contained herein or in the documents we incorporate by reference in this prospectus supplement other than a statement of historical fact, may be a forward-looking statement. For example, we may, in some cases, use words such as anticipate, believe, could, estimate, expect, intend, plan, project, should, will, would or other words that convey uncertainty of future events or outcomes to identify these forward-looking statements.

Our actual results may differ materially from those indicated by these forward-looking statements as a result of various important factors, including the factors referred to above under the heading Risk Factors and the following:

- our ability to obtain marketing approvals from the FDA and similar foreign regulatory authorities;
- our ability to complete the development of our drug candidates under the timelines we anticipate in current and future clinical trials;
- our ability to obtain patent protection for our drug candidates and freedom to operate under third party intellectual property;
- our ability to establish commercial manufacturing arrangements and to identify, enter into and maintain collaboration agreements with appropriate third-parties;
- our ability to launch commercial sales of our drug candidates, whether alone or in collaboration with others; and
- our ability to achieve profitability and raise the additional capital needed to achieve our business objectives.

If one or more of these factors materialize, or if any underlying assumptions prove incorrect, our actual results, performance or achievements may vary materially from any future results, performance or achievements expressed or implied by these forward-looking statements. You should consider these factors and the other cautionary statements made in this prospectus supplement or the documents we incorporate by reference in this prospectus as being applicable to all related forward-looking statements wherever they appear in this prospectus supplement or the documents incorporated by reference. While we may elect to update forward-looking statements wherever they appear in this prospectus supplement or the documents incorporated by reference, we do not assume, and specifically disclaim, any obligation to do so, whether as a result of new information, future events or otherwise.

Table of Contents

## USE OF PROCEEDS

We expect to receive net proceeds of approximately $52.1 million from the sale of 9,000,000 shares of our common stock in this offering based on an assumed pubic offering price of $6.19 (the last reported sale price of our common stock on the NASDAQ Global Market on June 17, 2011), or $59.9 million if the underwriters exercise their over-allotment option in full, after deducting the underwriting discounts and commissions and estimated expenses related to this offering payable by us. For more details see the section entitled Underwriting in this prospectus supplement.

We intend to use the net proceeds from this offering to continue clinical testing of ACH-1625 and ACH-2684, to advance ACH-2928 into clinical trials, to progress additional NS5A HCV drug candidates and for general corporate expenses.

We have not determined the amounts we plan to spend on any of the areas listed above or the timing of these expenditures. The occurrence of unforeseen events or changed business conditions, however, could result in the application of the net proceeds from this offering in a manner other than as described in this prospectus supplement. As a result, our management will have broad discretion to allocate the net proceeds from this offering.

Pending the uses described above, we plan to invest the net proceeds from this offering in short-term, investment-grade instruments, interest bearing securities.

Table of Contents

## DIVIDEND POLICY

We have never paid or declared any cash dividends on our common stock. We currently intend to retain any earnings for future growth and, therefore, do not expect to pay cash dividends in the foreseeable future.

## CAPITALIZATION

The following table sets forth our cash, cash equivalents and marketable securities and capitalization as of March 31, 2011:

on an actual basis; and

on a pro forma basis to reflect the sale of by us of 9,000,000 shares of common stock in this offering at the assumed public offering price of $6.19 per share, which was the last sale price reported on the NASDAQ Global Market for our common stock on June 17, 2011, after deducting underwriting discounts and commissions and estimated offering expenses.

This table should be read with the section titled Management s Discussion and Analysis of Financial Condition and Results of Operations and our financial statements and the related notes thereto appearing in our most recent quarterly and annual reports, which are incorporated by reference into the registration statement of which this prospectus supplement and the accompanying prospectus are a part.

| | As of March 31, 2011 | |
|---|---|---|
| | Actual | Pro Forma |
| | (Unaudited) (in thousands, except share data) | |
| Cash and cash equivalents and marketable securities | $ 46,412 | $ 98,479 |
| Stockholders equity: | | |
| Common stock, $.001 par value, 100,000,000 shares authorized, 58,400,302 shares issued and outstanding, actual; 100,000,000 shares authorized, 67,400,302 shares issued and outstanding, pro forma | 58 | 67 |
| Additional paid-in capital | 282,567 | 334,625 |
| Accumulated deficit | (241,527) | (241,527) |
| Accumulated other comprehensive loss | | |
| Total stockholders equity | 41,098 | 93,165 |

Table of Contents

## DILUTION

If you purchase our common stock in this offering, your interest will be diluted to the extent of the difference between the public offering price per share and the net tangible book value per share of our common stock after this offering. We calculate net tangible book value per share by subtracting our total liabilities from our total tangible assets and dividing the difference by the number of outstanding shares of our common stock.

Our net tangible book value at March 31, 2011 was $41.0 million, or $0.70 per share. Assuming we sell all 9,000,000 shares in the offering at the assumed public offering price of $6.19 per share, which was the last reported sale price of our common stock on the NASDAQ Global Market on June 17, 2011, less the estimated underwriting discount and estimated offering expenses payable by us, our as adjusted net tangible book value at March 31, 2011 would be $93.0 million, or $1.38 per share. This represents an immediate increase in net tangible book value of $0.68 per share to existing stockholders and an immediate dilution of $4.81 per share to investors in this offering. The following table illustrates this per share dilution:

| | | |
|---|---|---|
| Assumed public offering price per share | | $ 6.19 |
| Net tangible book value per share as of March 31, 2011 | $ 0.70 | |
| Increase per share attributable to new investors purchasing shares in this offering | $ 0.68 | |
| As adjusted net tangible book value per share as of March 31, 2011 after giving effect to this offering | | $ 1.38 |
| Dilution per share to new investors | | $ 4.81 |

Each $1.00 increase (decrease) in the assumed public offering price of $6.19 per share would increase (decrease) our as adjusted net tangible book value after this offering by approximately $8.5 million, or approximately $0.13 per share, and the dilution per share to new investors by approximately $0.87 per share, assuming that the number of shares offered by us, as set forth above, remains the same and after deducting underwriting discounts and commissions and estimated offering expenses payable by us. The information discussed above is illustrative only and will adjust based on the actual public offering price, the actual number of shares that we offer in this offering, and other terms of this offering determined at pricing.

If the underwriters exercise in full their option to purchase additional shares of common stock at the assumed public offering price of $6.19 per share, the as adjusted net tangible book value after this offering would be $1.47 per share, representing an increase in net tangible book value of $0.77 per share to existing stockholders and immediate dilution in net tangible book value of $4.72 per share to investors purchasing our common stock in this offering at the assumed public offering price.

The foregoing information is based on 58,400,302 shares outstanding as of March 31, 2011 and excludes:

- 5,847,826 shares of common stock issuable upon the exercise of stock options outstanding as of March 31, 2011, at a weighted average exercise price of $3.68 per share;
- 1,157,711 shares of our common stock available for future issuance as of March 31, 2011 under our 2006 stock incentive plan;
- 265,646 shares of our common stock available for future issuance as of March 31, 2011 under our 2006 employee stock purchase plan; and
- 9,663,517 shares of common stock issuable upon the exercise of warrants outstanding as of March 31, 2011, at a weighted average exercise price of $3.25 per share.

To the extent that any of our outstanding options or warrants are exercised, we grant additional options or other awards under our stock incentive plan or issue additional warrants, or we issue additional shares of common stock in the future, there may be further dilution.

Table of Contents

## UNDERWRITING

Merrill Lynch, Pierce, Fenner & Smith Incorporated and Leerink Swann LLC are acting as representatives of each of the underwriters named below. Subject to the terms and conditions set forth in an underwriting agreement among us and the underwriters, we have agreed to sell to the underwriters, and each of the underwriters has agreed, severally and not jointly, to purchase from us, the number of shares of common stock set forth opposite its name below.

| Underwriter | Number of Shares |
|---|---|
| Merrill Lynch, Pierce, Fenner & Smith Incorporated | |
| Leerink Swann LLC | |
| Total | 9,000,000 |

Subject to the terms and conditions set forth in the underwriting agreement, the underwriters have agreed, severally and not jointly, to purchase all of the shares sold under the underwriting agreement if any of these shares are purchased. If an underwriter defaults, the underwriting agreement provides that the purchase commitments of the nondefaulting underwriters may be increased or the underwriting agreement may be terminated.

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act, or to contribute to payments the underwriters may be required to make in respect of those liabilities.

The underwriters are offering the shares, subject to prior sale, when, as and if issued to and accepted by them, subject to approval of legal matters by their counsel, including the validity of the shares, and other conditions contained in the underwriting agreement, such as the receipt by the underwriters of officer s certificates and legal opinions. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

### Commissions and Discounts

The representatives have advised us that the underwriters propose initially to offer the shares to the public at the public offering price set forth on the cover page of this prospectus and to dealers at that price less a concession not in excess of $ per share. After the initial offering, the public offering price, concession or any other term of the offering may be changed.

The following table shows the public offering price, underwriting discount and proceeds before expenses to us. The information assumes either no exercise or full exercise by the underwriters of their overallotment option.

| | Per Share | Without Option | With Option |
|---|---|---|---|
| Public offering price | $ | $ | $ |
| Underwriting discount | $ | $ | $ |
| Proceeds, before expenses, to us | $ | $ | $ |

The expenses of the offering, not including the underwriting discount, are estimated at $300,000 and are payable by us.

### Overallotment Option

We have granted an option to the underwriters, exercisable for 30 days after the date of this prospectus, to purchase up to 1,350,000 additional shares at the public offering price, less the underwriting discount. The

Table of Contents

underwriters may exercise this option solely to cover any overallotments. If the underwriters exercise this option, each will be obligated, subject to conditions contained in the underwriting agreement, to purchase a number of additional shares proportionate to that underwriter s initial amount reflected in the above table.

**No Sales of Similar Securities**

We, our executive officers and directors have agreed not to sell or transfer any common stock or securities convertible into, exchangeable for, exercisable for, or repayable with common stock, for 60 days after the date of this prospectus without first obtaining the written consent of Merrill Lynch, Pierce, Fenner & Smith Incorporated and Leerink Swann LLC. Specifically, we and these other persons have agreed, with certain limited exceptions, not to directly or indirectly

- offer, pledge, sell or contract to sell any common stock,
- sell any option or contract to purchase any common stock,
- purchase any option or contract to sell any common stock,
- grant any option, right or warrant for the sale of any common stock,
- lend or otherwise dispose of or transfer any common stock,
- request or demand that we file a registration statement related to the common stock, or
- enter into any swap or other agreement that transfers, in whole or in part, the economic consequence of ownership of any common stock whether any such swap or transaction is to be settled by delivery of shares or other securities, in cash or otherwise.

This lock-up provision applies to common stock and to securities convertible into or exchangeable or exercisable for or repayable with common stock. It also applies to common stock owned now or acquired later by the person executing the agreement or for which the person executing the agreement later acquires the power of disposition. In the event that either (x) during the last 17 days of the lock-up period referred to above, we issue an earnings release or material news or a material event relating to the Company occurs or (y) prior to the expiration of the lock-up period, we announce that we will release earnings results or become aware that material news or a material event will occur during the 16-day period beginning on the last day of the lock-up period, the restrictions described above shall continue to apply until the expiration of the 18-day period beginning on the issuance of the earnings release or the occurrence of the material news or material event.

**Nasdaq Global Market Listing**

The shares are listed on the NASDAQ Global Market under the symbol ACHN.

**Price Stabilization, Short Positions**

Until the distribution of the shares is completed, SEC rules may limit underwriters and selling group members from bidding for and purchasing our common stock. However, the representatives may engage in transactions that stabilize the price of the common stock, such as bids or purchases to peg, fix or maintain that price.

In connection with the offering, the underwriters may purchase and sell our common stock in the open market. These transactions may include short sales, purchases on the open market to cover positions created by short sales and stabilizing transactions. Short sales involve the sale by the underwriters of a greater number of

Table of Contents

shares than they are required to purchase in the offering. Covered short sales are sales made in an amount not greater than the underwriters overallotment option described above. The underwriters may close out any covered short position by either exercising their overallotment option or purchasing shares in the open market. In determining the source of shares to close out the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase shares through the overallotment option. Naked short sales are sales in excess of the overallotment option. The underwriters must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of our common stock in the open market after pricing that could adversely affect investors who purchase in the offering. Stabilizing transactions consist of various bids for or purchases of shares of common stock made by the underwriters in the open market prior to the completion of the offering.

Similar to other purchase transactions, the underwriters purchases to cover the syndicate short sales may have the effect of raising or maintaining the market price of our common stock or preventing or retarding a decline in the market price of our common stock. As a result, the price of our common stock may be higher than the price that might otherwise exist in the open market. The underwriters may conduct these transactions on the NASDAQ Global Market, in the over-the-counter market or otherwise.

Neither we nor any of the underwriters make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of our common stock. In addition, neither we nor any of the underwriters make any representation that the representatives will engage in these transactions or that these transactions, once commenced, will not be discontinued without notice.

**Passive Market Making**

In connection with this offering, underwriters and selling group members may engage in passive market making transactions in the common stock on the NASDAQ Global Market in accordance with Rule 103 of Regulation M under the Exchange Act during a period before the commencement of offers or sales of common stock and extending through the completion of distribution. A passive market maker must display its bid at a price not in excess of the highest independent bid of that security. However, if all independent bids are lowered below the passive market maker s bid, that bid must then be lowered when specified purchase limits are exceeded. Passive market making may cause the price of our common stock to be higher than the price that otherwise would exist in the open market in the absence of those transactions. The underwriters and dealers are not required to engage in passive market making and may end passive market making activities at any time.

**Electronic Offer, Sale and Distribution of Shares**

In connection with the offering, certain of the underwriters or securities dealers may distribute prospectuses by electronic means, such as e-mail. In addition, certain of the underwriters may facilitate Internet distribution for this offering to certain of its Internet subscription customers. Certain of the underwriters may allocate a limited number of shares for sale to their online brokerage customers. An electronic prospectus is available on the Internet web sites maintained by certain of the underwriters. Other than the prospectus in electronic format, the information on such underwriters web sites is not part of this prospectus.

**Other Relationships**

Some of the underwriters and their affiliates have engaged in, and may in the future engage in, investment banking and other commercial dealings in the ordinary course of business with us or our affiliates. They have received, or may in the future receive, customary fees and commissions for these transactions.

In addition, in the ordinary course of their business activities, the underwriters and their affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative

Table of Contents

securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers. Such investments and securities activities may involve securities and/or instruments of ours or our affiliates. The underwriters and their affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or financial instruments and may hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

**Notice to Prospective Investors in the European Economic Area**

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a Relevant Member State ), with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State (the Relevant Implementation Date ), no offer of shares may be made to the public in that Relevant Member State other than:

(a) to any legal entity which is a qualified investor as defined in the Prospectus Directive;

(b) to fewer than 100 or, if the Relevant Member State has implemented the relevant provision of the 2010 PD Amending Directive, 150, natural or legal persons (other than qualified investors as defined in the Prospectus Directive), as permitted under the Prospectus Directive, subject to obtaining the prior consent of the representatives; or

(c) in any other circumstances falling within Article 3(2) of the Prospectus Directive,

provided that no such offer of shares shall require the Company or the representatives to publish a prospectus pursuant to Article 3 of the Prospectus Directive or supplement a prospectus pursuant to Article 16 of the Prospectus Directive.

Each person in a Relevant Member State (other than a Relevant Member State where there is a Permitted Public Offer) who initially acquires any shares or to whom any offer is made will be deemed to have represented, acknowledged and agreed that (A) it is a qualified investor within the meaning of the law in that Relevant Member State implementing Article 2(1)(e) of the Prospectus Directive, and (B) in the case of any shares acquired by it as a financial intermediary, as that term is used in Article 3(2) of the Prospectus Directive, the shares acquired by it in the offering have not been acquired on behalf of, nor have they been acquired with a view to their offer or resale to, persons in any Relevant Member State other than qualified investors as defined in the Prospectus Directive, or in circumstances in which the prior consent of the Subscribers has been given to the offer or resale. In the case of any shares being offered to a financial intermediary as that term is used in Article 3(2) of the Prospectus Directive, each such financial intermediary will be deemed to have represented, acknowledged and agreed that the shares acquired by it in the offer have not been acquired on a non-discretionary basis on behalf of, nor have they been acquired with a view to their offer or resale to, persons in circumstances which may give rise to an offer of any shares to the public other than their offer or resale in a Relevant Member State to qualified investors as so defined or in circumstances in which the prior consent of the representatives has been obtained to each such proposed offer or resale.

The Company, the representatives and their affiliates will rely upon the truth and accuracy of the foregoing representation, acknowledgement and agreement.

This prospectus has been prepared on the basis that any offer of shares in any Relevant Member State will be made pursuant to an exemption under the Prospectus Directive from the requirement to publish a prospectus for offers of shares. Accordingly any person making or intending to make an offer in that Relevant Member State of shares which are the subject of the offering contemplated in this prospectus may only do so in circumstances in which no obligation arises for the Company or any of the underwriters to publish a prospectus pursuant to Article 3 of the Prospectus Directive in relation to such offer. Neither the Company nor the underwriters have authorized, nor do they authorize, the making of any offer of shares in circumstances in which an obligation arises for the Company or the underwriters to publish a prospectus for such offer.

Table of Contents

For the purpose of the above provisions, the expression an offer to the public in relation to any shares in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the shares to be offered so as to enable an investor to decide to purchase or subscribe the shares, as the same may be varied in the Relevant Member State by any measure implementing the Prospectus Directive in the Relevant Member State and the expression Prospectus Directive means Directive 2003/71/EC (including the 2010 PD Amending Directive, to the extent implemented in the Relevant Member States) and includes any relevant implementing measure in the Relevant Member State and the expression 2010 PD Amending Directive means Directive 2010/73/EU.

**Notice to Prospective Investors in the United Kingdom**

In addition, in the United Kingdom, this document is being distributed only to, and is directed only at, and any offer subsequently made may only be directed at persons who are qualified investors (as defined in the Prospectus Directive) (i) who have professional experience in matters relating to investments falling within Article 19 (5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, as amended (the Order ) and/or (ii) who are high net worth companies (or persons to whom it may otherwise be lawfully communicated) falling within Article 49(2)(a) to (d) of the Order (all such persons together being referred to as relevant persons ). This document must not be acted on or relied on in the United Kingdom by persons who are not relevant persons. In the United Kingdom, any investment or investment activity to which this document relates is only available to, and will be engaged in with, relevant persons.

**Notice to Prospective Investors in Switzerland**

The shares may not be publicly offered in Switzerland and will not be listed on the SIX Swiss Exchange ( SIX ) or on any other stock exchange or regulated trading facility in Switzerland. This document has been prepared without regard to the disclosure standards for issuance prospectuses under art. 652a or art. 1156 of the Swiss Code of Obligations or the disclosure standards for listing prospectuses under art. 27 ff. of the SIX Listing Rules or the listing rules of any other stock exchange or regulated trading facility in Switzerland. Neither this document nor any other offering or marketing material relating to the shares or the offering may be publicly distributed or otherwise made publicly available in Switzerland.

Neither this document nor any other offering or marketing material relating to the offering, the Company, the shares have been or will be filed with or approved by any Swiss regulatory authority. In particular, this document will not be filed with, and the offer of shares will not be supervised by, the Swiss Financial Market Supervisory Authority FINMA ( FINMA ), and the offer of shares has not been and will not be authorized under the Swiss Federal Act on Collective Investment Schemes ( CISA ). The investor protection afforded to acquirers of interests in collective investment schemes under the CISA does not extend to acquirers of shares.

**Notice to Prospective Investors in the Dubai International Financial Centre**

This prospectus supplement relates to an Exempt Offer in accordance with the Offered Securities Rules of the Dubai Financial Services Authority ( DFSA ). This prospectus supplement is intended for distribution only to persons of a type specified in the Offered Securities Rules of the DFSA. It must not be delivered to, or relied on by, any other person. The DFSA has no responsibility for reviewing or verifying any documents in connection with Exempt Offers. The DFSA has not approved this prospectus supplement nor taken steps to verify the information set forth herein and has no responsibility for the prospectus supplement. The shares to which this prospectus supplement relates may be illiquid and/or subject to restrictions on their resale. Prospective purchasers of the shares offered should conduct their own due diligence on the shares. If you do not understand the contents of this prospectus supplement you should consult an authorized financial advisor.

Table of Contents

## LEGAL MATTERS

The validity of the shares of common stock offered by this prospectus supplement and the accompanying prospectus will be passed upon by Wilmer Cutler Pickering Hale and Dorr LLP, New York, New York. Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., Boston, Massachusetts is acting as counsel for the underwriters in connection with this offering.

## EXPERTS

The financial statements incorporated in this Prospectus supplement by reference to the Annual Report on Form 10-K for the year ended December 31, 2010 have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

## WHERE YOU CAN FIND MORE INFORMATION

We are subject to the reporting requirements of the Exchange Act and file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy these reports, proxy statements and other information at the SEC s public reference facilities at 100 F Street, N.E., Room 1580, Washington, D.C. 20549. You can request copies of these documents by writing to the SEC and paying a fee for the copying cost. Please call the SEC at 1-800-SEC-0330 for more information about the operation of the public reference facilities. SEC filings are also available at the SEC s website at http://www.sec.gov. Our common stock is listed on The NASDAQ Global Market, and you can read and inspect our filings at the offices of the Financial Industry Regulatory Authority located at 1735 K Street, N.W., Washington, D.C. 20006.

This prospectus supplement and the accompanying prospectus are only part of a registration statement on Form S-3 that we have filed with the SEC under the Securities Act and therefore omits certain information contained in the registration statement. We have also filed exhibits with the registration statement that are excluded from this prospectus supplement and the accompanying prospectus, and you should refer to the applicable exhibit for a complete description of any statement referring to any contract or other document. You may inspect a copy of the registration statement, including the exhibits, without charge, at the public reference room or obtain a copy from the SEC upon payment of the fees prescribed by the SEC.

The reports, proxy statements and other information that we file with the SEC are available to you free of charge through the Investors page of our website, *www.achillion.com*, as soon as reasonably practicable after they have been electronically filed with, or furnished to, the SEC. We have included our website address as a factual reference and do not intend it as an active link to our website. The information contained, or accessible through, our website is not a part of this prospectus supplement or the accompanying prospectus.

Table of Contents

## INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

We are incorporating by reference certain documents we file with the SEC, which means that we can disclose important information to you by referring you to those documents. The information in the documents incorporated by reference is considered to be part of this prospectus supplement. Statements contained in documents that we file with the SEC and that are incorporated by reference in this prospectus supplement will automatically update and supersede information contained in this prospectus supplement, including information in previously filed documents or reports that have been incorporated by reference in this prospectus supplement, to the extent the new information differs from or is inconsistent with the old information. Except as set forth below, the SEC file number for the documents incorporated by reference in this prospectus is 001-33095.

We have filed or may file the following documents with the SEC and they are incorporated herein by reference as of their respective dates of filing:

- Our Annual Report on Form 10-K for the fiscal year ended December 31, 2010, as filed with the SEC on March 3, 2011;
- The portions of our Definitive Proxy Statement on Form DEF 14A deemed filed under the Exchange Act, as filed with the SEC on April 19, 2011;
- Our Quarterly Report on Form 10-Q for the quarter ended March 31, 2011, as filed with the SEC on May 4, 2011;
- Our Current Reports on Form 8-K, as filed with the SEC on March 25, 2011, April 8, 2011 and June 10, 2011.
- All documents filed by us pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this prospectus supplement and before the termination or completion of this offering of common stock shall be deemed to be incorporated by reference in this prospectus supplement and to be a part of it from the filing dates of such documents, except in each case for information contained in any such filing where we indicate that such information is being furnished and is not to be considered filed under the Exchange Act; and
- The description of our common stock contained in our Registration Statement on Form 8-A filed with the SEC on October 18, 2006.

A statement contained in a document incorporated by reference into this prospectus supplement shall be deemed to be modified or superseded for purposes of this prospectus supplement to the extent that a statement contained in this prospectus supplement or in any other subsequently filed document which is also incorporated in this prospectus supplement modifies or replaces such statement. Any statements so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus supplement.

You may request a copy of these documents, which will be provided to you at no cost, by writing or telephoning us using the following contact information:

300 George Street

New Haven, CT 06511-6624

Phone: (203) 624-7000

Table of Contents

# $100,000,000

# Achillion Pharmaceuticals, Inc.

## Common Stock

## Preferred Stock

## Warrants

We may from time to time sell common stock, preferred stock and/or warrants in one or more offerings, for an aggregate initial offering price of $100,000,000. We may sell these securities to or through underwriters, directly to investors or through agents. This prospectus describes the general manner in which our securities may be offered using this prospectus. We will provide you with specific terms of the offerings in one or more supplements to this prospectus.

Our common stock is listed on the NASDAQ Global Market and traded under the symbol ACHN. The last reported sale price of our common stock on the NASDAQ Global Market on April 25, 2011 was $6.43 per share.

**Investing in our securities involves significant risks. See Risk Factors beginning on page 3.**

**Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus. Any representation to the contrary is a criminal offense.**

This prospectus may not be used to consummate sales of securities unless it is accompanied by a prospectus supplement.

**Prospectus dated April 25, 2011.**

Table of Contents

**TABLE OF CONTENTS**



**You should rely only on the information contained in this prospectus and the documents incorporated by reference in this prospectus or to which we have referred you. We have not authorized anyone to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. This prospectus does not constitute an offer to sell, or a solicitation of an offer to purchase, the securities offered by this prospectus in any jurisdiction to or from any person to whom or from whom it is unlawful to make such offer or solicitation of an offer in such jurisdiction. You should not assume that the information contained in this prospectus or any document incorporated by reference is accurate as of any date other than the date on the front cover of the applicable document. Neither the delivery of this prospectus nor any distribution of securities pursuant to this prospectus shall, under any circumstances, create any implication that there has been no change in the information set forth or incorporated by reference into this prospectus or in our affairs since the date of this prospectus. Our business, financial condition, results of operations and prospects may have changed since that date.**

Table of Contents

## ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, or the SEC, using a shelf registration process. Under this shelf registration process, we may from time to time sell common stock, preferred stock and/or warrants to purchase common stock or preferred stock, in one or more offerings, up to a total dollar amount of $100,000,000. We have provided to you in this prospectus a description of the general manner in which these securities may be offered by this prospectus. Each time we sell securities under this shelf registration process, we will provide a prospectus supplement that will contain specific information about the terms of the offering. We may also add, update or change in the prospectus supplement, or any free writing prospectus we may authorize to be delivered to you, any of the information contained in this prospectus. To the extent there is a conflict between the information contained in this prospectus and the prospectus supplement or any free writing prospectus we may authorize to be delivered to you, you should rely on the information in the prospectus supplement or free writing prospectus, as the case may be, provided that if any statement in one of these documents is inconsistent with a statement in another document having a later date for example, a document incorporated by reference in this prospectus or any prospectus supplement the statement in the document having the later date modifies or supersedes the earlier statement. This prospectus, together with the applicable prospectus supplements and any free writing prospectus we may authorize to be delivered to you, includes all material information relating to this offering.

As permitted by the rules and regulations of the SEC, the registration statement, of which this prospectus forms a part, includes additional information not contained in this prospectus. You may read the registration statement and the other reports we file with the SEC at the SEC s web site or at the SEC s offices, each as further described below under the heading Where You Can Find Additional Information.

Table of Contents

## SUMMARY

**Achillion Pharmaceuticals, Inc.**

We are a biopharmaceutical company focused on the discovery, development and commercialization of innovative treatments for infectious diseases. Within the anti-infective market, we are currently concentrating on the development of antivirals for the treatment of chronic hepatitis C and the development of antibacterials for the treatment of resistant bacterial infections. We are currently focusing our efforts on developing three drug candidates for the treatment of chronic hepatitis C (HCV): ACH-1625, a protease inhibitor for the treatment of chronic hepatitis C, currently being tested in an on-going phase IIa clinical trial, ACH-2684, a pangenotypic protease inhibitor for which we have completed preclinical testing, and ACH-2928, a NS5A inhibitor for which we have completed preclinical testing. We also have developed ACH-1095, a NS4A antagonist for the treatment of chronic hepatitis C, to which Gilead Sciences, Inc., or Gilead, retains certain future development rights. We are not devoting significant resources at this time to the further development of ACH-1095. In addition, we have established a pipeline of certain product candidates for which we are currently seeking appropriate collaborative partners, but to which we are not devoting significant resources at this time. These product candidates include ACH-702 for the treatment of dermatologic and opthalmic infections, ACH-2881 for the treatment of serious resistant bacterial infections, including methicillin-resistant staphylococcus aureus, and elvucitabine for the treatment of HIV infection.

We will need substantial additional financing to obtain regulatory approvals, fund operating losses, and, if deemed appropriate, establish manufacturing and sales and marketing capabilities, which we will seek to raise through public or private equity or debt financings, collaborative or other arrangements with third parties or through other sources of financing. There can be no assurance that such funds will be available on terms favorable to us, if at all.

In addition to the risks associated with early-stage companies, there can be no assurance that we will successfully complete our research and development, obtain adequate patent protection for our technology, obtain necessary government regulatory approval for drug candidates we develop, find and maintain appropriate collaboration partners or that any approved drug candidates will be commercially viable. In addition, we may not be profitable even if we succeed in commercializing any of our drug candidates.

**Corporate Information**

We were incorporated in Delaware in August 1998. Our principal executive office is located at 300 George Street, New Haven, Connecticut 06511, and our telephone number is (203) 624-7000. Our internet address is www.achillion.com. The information on our web site is not incorporated by reference into this prospectus and should not be considered to be a part of this prospectus. Our internet address is included in this prospectus as an inactive technical reference only.

Unless otherwise stated, all references to us, our, Achillion, we, the Company and similar designations refer to Achillion Pharmaceuticals, In
Our logo, trademarks and service marks are the property of Achillion. Other trademarks or service marks appearing in this prospectus are the property of their respective holders.

Table of Contents

## RISK FACTORS

Investing in our securities involves significant risks. Please see the risk factors under the heading Risk Factors in our Annual Report on Form 10-K for the year ended December 31, 2010 on file with the SEC, which is incorporated by reference in this prospectus. Before making an investment decision, you should carefully consider these risks as well as other information we include or incorporate by reference in this prospectus and any prospectus supplement. The risks and uncertainties we have described are not the only ones facing our company. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also affect our business operations.

## SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, any prospectus supplement and the documents we incorporate by reference in this prospectus include forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, which we refer to as the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, which we refer to as the Exchange Act. For purposes of these statutes, any statement contained herein, in any prospectus supplement or in the documents we incorporate by reference in this prospectus other than a statement of historical fact, may be a forward-looking statement. For example, we may, in some cases, use words such as anticipate, believe, could, estimate, expect, intend, may, plan, project, should, will, would or other words that convey uncertainty of future events identify these forward-looking statements. Our actual results may differ materially from those indicated by these forward-looking statements as a result of various important factors, including the factors referred to above under the heading Risk Factors. These important factors include the factors that we identify in the documents that we incorporate by reference in this prospectus. If one or more of these factors materialize, or if any underlying assumptions prove incorrect, our actual results, performance or achievements may vary materially from any future results, performance or achievements expressed or implied by these forward-looking statements. You should consider these factors and the other cautionary statements made in this prospectus, any prospectus supplement or the documents we incorporate by reference in this prospectus as being applicable to all related forward-looking statements wherever they appear in this prospectus, any prospectus supplement or the documents incorporated by reference. While we may elect to update forward-looking statements wherever they appear in this prospectus, any prospectus supplement or the documents incorporated by reference, we do not assume, and specifically disclaim, any obligation to do so, whether as a result of new information, future events or otherwise.

Table of Contents

## USE OF PROCEEDS

Unless otherwise provided in the applicable prospectus supplement, we intend to use the net proceeds from the sale of securities under this prospectus for general corporate purposes, research and development expenses, including clinical trial costs, general and administrative expenses and products and technologies that complement our business. We will set forth in the prospectus supplement our intended use for the net proceeds received from the sale of securities. Pending the application of the net proceeds, we intend to invest the net proceeds in investment-grade, interest-bearing securities.

## THE SECURITIES WE MAY OFFER

The descriptions of the securities contained in this prospectus, together with the applicable prospectus supplements, summarize the material terms and provisions of the various types of securities that we may offer. We will describe in the applicable prospectus supplement relating to any securities the particular terms of the securities offered by that prospectus supplement. If we indicate in the applicable prospectus supplement, the terms of the securities may differ from the terms we have summarized below. We will also include in the prospectus supplement information, where applicable, about material U.S. federal income tax considerations relating to the securities, and the securities exchange, if any, on which the securities will be listed.

We may sell from time to time, in one or more offerings:

- common stock;
- preferred stock;
- warrants to purchase common stock or preferred stock; or
- any combination of the foregoing securities.

In this prospectus, we refer to the common stock, preferred stock and warrants collectively as securities. The total dollar amount of all securities that we may issue under this prospectus will not exceed $100,000,000.

This prospectus may not be used to consummate a sale of securities unless it is accompanied by a prospectus supplement.

Table of Contents

## DESCRIPTION OF CAPITAL STOCK

The following describes our common stock and provisions of our certificate of incorporation and bylaws. Copies of these documents are filed with the Securities and Exchange Commission as exhibits to our registration statement, of which this prospectus forms a part.

Our authorized capital stock consists of 100,000,000 shares of our common stock, par value $0.001 per share, and 5,000,000 shares of preferred stock, par value $0.01 per share.

**Common Stock**

As of February 28, 2011 there were 58,390,498 shares of our common stock outstanding and 63 holders of record.

Holders of common stock are entitled to one vote for each share held on all matters submitted to a vote of stockholders and do not have cumulative voting rights. Accordingly, holders of a majority of the shares of common stock entitled to vote in any election of directors may elect all of the directors standing for election. Holders of common stock are entitled to receive proportionately any dividends as may be declared by our board of directors, subject to any preferential dividend rights of outstanding preferred stock. Upon our liquidation, dissolution or winding up, the holders of common stock are entitled to receive proportionately our net assets available after the payment of all debts and other liabilities and subject to the prior rights of any outstanding preferred stock. Holders of common stock have no preemptive, subscription, redemption or conversion rights. Our outstanding shares of common stock are, and the shares offered by us in this offering will be, when issued and paid for, fully paid and nonassessable. The rights, preferences and privileges of holders of common stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of preferred stock that we may designate and issue in the future.

**Preferred Stock**

Under the terms of our certificate of incorporation, our board of directors is authorized to issue shares of preferred stock in one or more series without stockholder approval. Our board of directors has the discretion to determine the rights, preferences, privileges and restrictions, including voting rights, dividend rights, conversion rights, redemption privileges and liquidation preferences, of each series of preferred stock.

The purpose of authorizing our board of directors to issue preferred stock and determine its rights and preferences is to eliminate delays associated with a stockholder vote on specific issuances. The issuance of preferred stock, while providing flexibility in connection with possible future financings, future acquisitions and other corporate purposes, could have the effect of making it more difficult for a third party to acquire, or could discourage a third party from seeking to acquire, a majority of our outstanding voting stock. The effects of issuing preferred stock could also include one or more of the following:

- restricting dividends on the common stock;
- diluting the voting power of the common stock; or
- impairing the liquidation rights of the common stock.

Table of Contents

## DESCRIPTION OF WARRANTS

The following description, together with the additional information we may include in any applicable prospectus supplements, summarizes the material terms and provisions of the warrants that we may offer under this prospectus and the related warrant agreements and warrant certificates. While the terms summarized below will apply generally to any warrants that we may offer, we will describe the particular terms of any series of warrants in more detail in the applicable prospectus supplement. If we indicate in the prospectus supplement, the terms of any warrants offered under that prospectus supplement may differ from the terms described below. Specific warrant agreements will contain additional important terms and provisions and will be incorporated by reference as an exhibit to the registration statement that includes this prospectus.

### General

We may issue warrants for the purchase of common stock or preferred stock in one or more series. We may issue warrants independently or together with common stock or preferred stock, and the warrants may be attached to or separate from these securities. We will issue warrants under one or more warrant agreements between us and a warrant agent that we will name in the prospectus supplement.

Before exercising their warrants, holders of warrants will not have any of the rights of holders of the securities purchasable upon such exercise, including the right to receive dividends, if any, or, payments upon our liquidation, dissolution or winding up or to exercise voting rights, if any.

### Additional Information

We will describe in the applicable prospectus supplement the terms of the warrants, including:

- the offering price and aggregate number of warrants offered;
- if applicable, the designation and terms of the securities with which the warrants are issued and the number of warrants issued with each such security or each principal amount of such security;
- if applicable, the date on and after which the warrants and the related securities will be separately transferable;
- the number of shares of common stock or preferred stock, as the case may be, purchasable upon the exercise of one warrant and the price at which these shares may be purchased upon such exercise;
- the effect of any merger, consolidation, sale or other disposition of our business on the warrant agreement and the warrants;
- the terms of any rights to redeem or call the warrants;
- any provisions for changes to or adjustments in the exercise price or number of securities issuable upon exercise of the warrants;
- the dates on which the right to exercise the warrants will commence and expire;
- the manner in which the warrant agreement and warrants may be modified;

a discussion on any material or special United States federal income tax consequences of holding or exercising the warrants;

the terms of the securities issuable upon exercise of the warrants; and

any other specific terms, preferences, rights or limitations of or restrictions on the warrants.

Table of Contents

**Exercise of Warrants**

Each warrant will entitle the holder to purchase the securities that we specify in the applicable prospectus supplement at the exercise price that we describe in the applicable prospectus supplement. Unless we otherwise specify in the applicable prospectus supplement, holders of the warrants may exercise the warrants at any time up to 5 p.m., Eastern time, on the expiration date that we set forth in the applicable prospectus supplement. After the close of business on the expiration date, unexercised warrants will become void.

Holders of the warrants may exercise the warrants by delivering the warrant certificate representing the warrants to be exercised together with specified information, and paying the required amount to the warrant agent in immediately available funds, as provided in the applicable prospectus supplement. We will set forth on the reverse side of the warrant certificate and in the applicable prospectus supplement the information that the holder of the warrant will be required to deliver to the warrant agent.

Upon receipt of the required payment and the warrant certificate properly completed and duly executed at the corporate trust office of the warrant agent or any other office indicated in the applicable prospectus supplement, we will issue and deliver the securities purchasable upon such exercise. If fewer than all of the warrants represented by the warrant certificate are exercised, then we will issue a new warrant certificate for the remaining amount of warrants. If we so indicate in the applicable prospectus supplement, holders of the warrants may surrender securities as all or part of the exercise price for warrants.

**Anti-Takeover Provisions of Delaware Law, our Certificate of Incorporation and our Bylaws**

We are subject to the provisions of Section 203 of the General Corporation Law of Delaware. Subject to certain exceptions, Section 203 prohibits a publicly held Delaware corporation from engaging in a business combination with an interested stockholder for a period of three years after the person became an interested stockholder, unless the interested stockholder attained such status with the approval of our board of directors or the business combination is approved in a prescribed manner. A business combination includes, among other things, a merger or consolidation involving us and the interested stockholder and the sale of more than 10% of our assets. In general, an interested stockholder is any entity or person beneficially owning 15% or more of our outstanding voting stock and any entity or person affiliated with or controlling or controlled by such entity or person.

Our certificate of incorporation and our bylaws divide our board of directors into three classes with staggered three-year terms. In addition, our certificate of incorporation provides that directors may be removed only for cause by the affirmative vote of the holders of 75% of our shares of capital stock entitled to vote. Under our certificate of incorporation, any vacancy on our board of directors, including a vacancy resulting from an enlargement of our board of directors, may only be filled by vote of a majority of our directors then in office. The classification of our board of directors and the limitations on the removal of directors and filling of vacancies could make it more difficult for a third party to acquire, or discourage a third party from acquiring, control of us.

Our certificate of incorporation and our bylaws also provide that any action required or permitted to be taken by our stockholders at an annual meeting or special meeting of stockholders may only be taken if it is properly brought before the meeting and may not be taken by written action in lieu of a meeting. Our certificate of incorporation and our bylaws further provide that, except as otherwise required by law, special meetings of the stockholders may only be called by the chairman of the board, chief executive officer or our board of directors. In addition, our bylaws establish an advance notice procedure for stockholder proposals to be brought before an annual meeting of stockholders, including proposed nominations of persons for election to the board of directors. Stockholders at an annual meeting may only consider proposals or nominations specified in the notice of meeting or brought before the meeting by or at the direction of the board of directors or by a stockholder of record on the record date for the meeting, who is entitled to vote at the meeting and who has delivered timely written notice in proper form to our secretary of the stockholder s intention to bring such business before the meeting. These provisions may also discourage a third party from making a tender offer for our common stock, because even if it

Table of Contents

acquired a majority of our outstanding voting securities, the third party would be able to take action as a stockholder, such as electing new directors or approving a merger, only at a duly called stockholders meeting, and not by written consent.

The General Corporation Law of Delaware provides generally that the affirmative vote of a majority of the shares entitled to vote on any matter is required to amend a corporation s certificate of incorporation or bylaws, unless a corporation s certificate of incorporation or bylaws, as the case may be, requires a greater percentage. Our certificate of incorporation and bylaws require the affirmative vote of the holders of at least 75% of the shares of our capital stock issued and outstanding and entitled to vote to amend or repeal any of the provisions described in the prior two paragraphs.

**Limitation of Liability and Indemnification**

Our certificate of incorporation contains provisions permitted under the General Corporation Law of Delaware relating to the liability of directors. The provisions eliminate a director s liability for monetary damages for a breach of fiduciary duty, except in circumstances involving wrongful acts, such as the breach of a director s duty of loyalty or acts or omissions that involve intentional misconduct or a knowing violation of law. Further, our certificate of incorporation contains provisions to indemnify our directors and officers to the fullest extent permitted by the General Corporation Law of Delaware.

**Transfer Agent and Registrar**

The transfer agent and registrar for our common stock is Computershare, with offices at 250 Royall Street, Canton, Massachusetts 02021.

**NASDAQ Global Market**

Our common stock is traded on the Nasdaq Global Market under the symbol ACHN.

Table of Contents

## PLAN OF DISTRIBUTION

We may sell the securities being offered through underwriters or dealers, through agents, or directly to one or more purchasers. The prospectus supplement will describe the terms of the offering of the securities, including:

- the number of securities we are offering;
- the name or names of any agents or underwriters;
- any securities exchange or market on which the securities may be listed;
- the purchase price of the securities being offered and the proceeds we will receive from the sale;
- any over-allotment options pursuant to which underwriters may purchase additional securities from us;
- any underwriting discounts or agency fees and other items constituting underwriters or agents compensation; and
- any discounts or concessions allowed or reallowed or paid to dealers.

If underwriters are used in the sale, they will acquire the securities for their own account and may resell the securities from time to time in one or more transactions at a fixed public offering price or at varying prices determined at the time of the sale. The obligations of the underwriters to purchase the securities will be subject to the conditions set forth in the applicable underwriting agreement. We may offer the securities to the public through underwriting syndicates represented by managing underwriters or by underwriters without a syndicate. Subject to certain conditions, the underwriters will be obligated to purchase all the securities offered by the prospectus supplement. We may change from time to time the public offering price and any discounts or concessions allowed or reallowed or paid to dealers.

We may sell the securities directly or through agents we designate from time to time. We will name any agent involved in the offering and sale of the securities, and we will describe any commissions we will pay the agent in the prospectus supplement. Unless the prospectus supplement states otherwise, our agent will act on a best-efforts basis for the period of its appointment.

We may provide underwriters and agents with indemnification against civil liabilities related to this offering, including liabilities under the Securities Act, or contribution with respect to payments that the underwriters or agents may make with respect to these liabilities. Underwriters and agents may engage in transactions with, or perform services for, us in the ordinary course of business. We will describe such relationships in the prospectus supplement naming the underwriter and the nature of any such relationship.

Rules of the Securities and Exchange Commission may limit the ability of any underwriters to bid for or purchase securities before the distribution of the shares of common stock is completed. However, underwriters may engage in the following activities in accordance with the rules:

- *Stabilizing transactions* Underwriters may make bids or purchases for the purpose of pegging, fixing or maintaining the price of the shares, so long as stabilizing bids do not exceed a specified maximum.

*Over-allotments and syndicate covering transactions* Underwriters may sell more securities than the number of securities that they have committed to purchase in any underwritten offering. This over-allotment creates a short position for the underwriters. This short position may involve either covered short sales or naked short sales. Covered short sales are short sales made in an amount not greater than the underwriters over-allotment option to purchase additional securities in any underwritten offering. The underwriters may close out any covered short position either by exercising their over-allotment option or by purchasing shares in the open market. To determine how they will close the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market, as compared to the price at which they may purchase shares through

Table of Contents

the over-allotment option. Naked short sales are short sales in excess of the over-allotment option. The underwriters must close out any naked position by purchasing securities in the open market. A naked short position is more likely to be created if the underwriters are concerned that, in the open market after pricing, there may be downward pressure on the price of the shares that could adversely affect investors who purchase shares in the offering.

*Penalty bids* If underwriters purchase securities in the open market in a stabilizing transaction or syndicate covering transaction, they may reclaim a selling concession from other underwriters and selling group members who sold those securities as part of the offering.

Similar to other purchase transactions, an underwriter s purchases to cover the syndicate short sales or to stabilize the market price of our securities may have the effect of raising or maintaining the market price of our common stock or preventing or mitigating a decline in the market price of our securities. As a result, the price of the shares of our securities may be higher than the price that might otherwise exist in the open market. The imposition of a penalty bid might also have an effect on the price of shares if it discourages the resale of the securities.

If commenced, the underwriters may discontinue any of these activities at any time.

Our common stock is quoted on the NASDAQ Global Market. One or more underwriters may make a market in our securities, but the underwriters will not be obligated to do so and may discontinue market making at any time without notice. We cannot give any assurance as to liquidity of the trading market for our securities.

Any underwriters who are qualified market makers on the NASDAQ Global Market may engage in passive market making transactions in the securities on the NASDAQ Global Market in accordance with Rule 103 of Regulation M, during the business day prior to the pricing of the offering, before the commencement of offers or sales of the securities. Passive market makers must comply with applicable volume and price limitations and must be identified as passive market makers. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for such security; if all independent bids are lowered below the passive market maker s bid, however, the passive market maker s bid must then be lowered when certain purchase limits are exceeded.

In compliance with guidelines of the Financial Industry Regulatory Authority, or FINRA, the maximum consideration or discount to be received by any FINRA member or independent broker dealer may not exceed 8% of the aggregate amount of the securities offered pursuant to this prospectus and any applicable prospectus supplement.

Table of Contents

## LEGAL MATTERS

The validity of the issuance of the securities offered by this prospectus will be passed upon for us by Wilmer Cutler Pickering Hale and Dorr LLP.

## EXPERTS

The financial statements incorporated in this Prospectus by reference to the Annual Report on Form 10-K for the year ended December 31, 2010 have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

## WHERE YOU CAN FIND MORE INFORMATION

We file reports, proxy statements and other information with the SEC as required by the Exchange Act. You can find, copy and inspect information we file at the SEC s public reference room at 100 F Street, N.E., Room 1580, Washington, D.C. 20549. You can call the SEC at 1-800-SEC-0330 for further information about the public reference room. You can review our electronically filed reports, proxy and information statements on the SEC s web site at http://www.sec.gov or on our web site at http://www.achillion.com. Information included on our web site is not a part of this prospectus or any prospectus supplement.

This prospectus is part of a registration statement that we filed with the SEC. The registration statement contains more information than this prospectus regarding us and the securities, including exhibits and schedules. You can obtain a copy of the registration statement from the SEC at any address listed above or from the SEC s web site.

Table of Contents

## INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

We are incorporating by reference certain documents we file with the SEC, which means that we can disclose important information to you by referring you to those documents. The information in the documents incorporated by reference is considered to be part of this prospectus. Statements contained in documents that we file with the SEC and that are incorporated by reference in this prospectus will automatically update and supersede information contained in this prospectus, including information in previously filed documents or reports that have been incorporated by reference in this prospectus, to the extent the new information differs from or is inconsistent with the old information. Except as set forth below, the SEC file number for the documents incorporated by reference in this prospectus is 001-33095.

We have filed or may file the following documents with the SEC and they are incorporated herein by reference as of their respective dates of filing:

Our Annual Report on Form 10-K for the fiscal year ended December 31, 2010, as filed with the SEC on March 3, 2011;

Definitive Proxy Statement on Schedule 14A, filed on April 22, 2010 (excluding those portions that are not incorporated by reference into our Annual Report on Form 10-K for the fiscal year ended December 31, 2009).

All documents filed by us pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act (1) after the date of the filing of this registration statement and prior to its effectiveness and (2) until all of the common stock to which this prospectus relates has been sold or the offering is otherwise terminated, except in each case for information contained in any such filing where we indicate that such information is being furnished and is not to be considered filed under the Exchange Act, will be deemed to be incorporated by reference in this prospectus and the accompanying prospectus supplement and to be a part hereof from the date of filing of such documents; and

The description of our common stock contained in our Registration Statement on Form 8-A filed with the SEC on October 18, 2006.

A statement contained in a document incorporated by reference into this prospectus shall be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus, any prospectus supplement or in any other subsequently filed document which is also incorporated in this prospectus modifies or replaces such statement. Any statements so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

You may request a copy of these documents, which will be provided to you at no cost, by writing or telephoning us using the following contact information:

300 George Street

New Haven, CT 06511-6624

Phone: (203) 624-7000

You should rely only on the information contained in this prospectus, including information incorporated by reference as described above, or any prospectus supplement or that we have specifically referred you to. We have not authorized anyone else to provide you with different information. You should not assume that the information in this prospectus or any prospectus supplement is accurate as of any date other than the date on the front of those documents or that any document incorporated by reference is accurate as of any date other than its filing date. You should not consider this prospectus to be an offer or solicitation relating to the securities in any jurisdiction in which such an offer or solicitation relating to the securities is not authorized. Furthermore, you should not consider this prospectus to be an offer or solicitation relating to the securities if the person making the offer or solicitation is not qualified to do so, or if it is unlawful for you to receive such an offer or solicitation.

Table of Contents

# 9,000,000 Shares

## Common Stock

**PROSPECTUS SUPPLEMENT**

*Joint Book-Running Managers*

**BofA Merrill Lynch**

**Leerink Swann**

**June , 2011**