ACHILLION PHARMACEUTICALS INC Form 424B7 November 16, 2017 Table of Contents

> Filed pursuant to Rule 424(b)(7) Registration No: 333-216197

Prospectus Supplement to Prospectus dated April 28, 2017.

18,367,346 Shares

Achillion Pharmaceuticals, Inc.

Common Stock

All of the shares of common stock in the offering are being sold by the selling stockholder identified in this prospectus supplement. Achillion Pharmaceuticals, Inc. will not receive any of the proceeds from the sale of the shares being sold by the selling stockholder.

The common stock is listed on the Nasdaq Global Select Market under the symbol ACHN. The last reported sale price of the common stock on the Nasdaq Global Select Market on November 15, 2017 was \$3.03 per share.

See <u>Risk Factors</u> on page S-4 of this prospectus supplement and on page 5 of the accompanying prospectus to read about factors you should consider before buying shares of the common stock.

Neither the Securities and Exchange Commission nor any other regulatory body has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus supplement or the accompanying prospectus. Any representation to the contrary is a criminal offense.

	Per share	Total
Public offering price	\$ 2.750	\$ 50,510,201.50

Underwriting discounts and commissions	\$ 0.165	\$ 3,030,612.09
Proceeds, before expenses, to the selling stockholder	\$ 2.585	\$47,479,589.41

The underwriters expect to deliver the shares against payment in New York, New York on or about November 20, 2017.

Goldman Sachs & Co. LLC

Leerink Partners

Prospectus Supplement dated November 15, 2017

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Prospectus

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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 28, 2017, 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 supplement, on the one hand, and the information contained 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 unless otherwise specified.

We further note that the representations, warranties and covenants made by us in any agreement that is filed as an exhibit to any document that is incorporated by reference herein or in the accompanying prospectus were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreement, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were accurate only as of the date when made. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

You should rely only on the information contained in or incorporated by reference in this prospectus supplement, the accompanying prospectus and in any free writing prospectus we have authorized for use in connection with this offering. We, the selling stockholder and the underwriters have not authorized anyone to provide any information other than that contained or incorporated by reference in this prospectus supplement, in the accompanying prospectus or in any free writing prospectus prepared by or on behalf of us or to which we have referred you. We, the selling stockholder 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, the selling stockholder is 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 and the accompanying prospectus entitled Where You Can Find More Information and Incorporation by Reference.

Other than in the United States, no action has been taken by us, the selling stockholder or the underwriters that would permit a public offering of the securities offered by this prospectus in any

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jurisdiction where action for that purpose is required. The securities offered by this prospectus may not be offered or sold, directly or indirectly, nor may this prospectus or any other offering material or advertisements in connection with the offer and sale of any such securities be distributed or published in any jurisdiction, except under circumstances that will result in compliance with the applicable rules and regulations of that jurisdiction. Persons into whose possession this prospectus comes are advised to inform themselves about and to observe any restrictions relating to the offering and the distribution of this prospectus. This prospectus does not constitute an offer to sell or a solicitation of an offer to buy any securities offered by this prospectus in any jurisdiction in which such an offer or a solicitation is unlawful.

Unless the context otherwise indicates, references in this prospectus supplement to Achillion, we, our and us refer to Achillion Pharmaceuticals, Inc., a Delaware corporation. The trademarks, trade names and service marks appearing in this prospectus are the property of their respective owners.

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CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement, the accompanying prospectus and the documents we incorporate by reference herein and therein include forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or 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 in this prospectus supplement, the accompanying prospectus or in the documents we incorporate by reference herein and therein other than a statement of historical fact, may be a forward-looking statement, including statements regarding our strategy, future operations, future financial position, future revenue, projected costs, prospects, plans and objectives of management. In some cases, you can identify forward-looking statements by such terms as anticipate, believe, could, estimate, expect, would or other words that convey uncertainty of future events or o intend, plan, project, should, will, may, identify these forward-looking statements. Forward-looking statements may include, but are not limited to, statements about:

the initiation, timing, progress and results of preclinical studies and clinical trials, and our research and development programs;

our plans to develop and commercialize our product candidates;

our ability to establish and maintain collaborations or obtain additional funding;

the timing or likelihood of regulatory filings and approvals;

the implementation of our business model, strategic plans for our business, product candidates and technology;

our commercialization, marketing and manufacturing capabilities and strategy;

the rate and degree of market acceptance and clinical utility of our products;

our competitive position;

our intellectual property position;

developments and projections relating to our competitors and our industry;

the potential advancement of our complement factor D inhibition platform, including ACH-4471 and ACH-5228 and the potential indications our complement factor D inhibitor compounds may address; and

our estimates regarding expenses, future revenue, capital requirements and needs for additional financing. 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 under the heading Risk Factors in this prospectus supplement and under the heading Risk Factors in our Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2017, together with all of the other information contained in this prospectus supplement, the accompanying prospectus and in our filings with the SEC, that we have incorporated by reference in this prospectus supplement and the accompanying 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.

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You should consider these factors and the other cautionary statements made in this prospectus supplement, the accompanying prospectus and the documents we incorporate by reference herein and therein as being applicable to all related forward-looking statements wherever they appear in this prospectus supplement, the accompanying prospectus, or the documents incorporated by reference. While we may elect to update forward-looking statements wherever they appear in this prospectus, or the documents incorporated by reference. While we may elect to update forward-looking statements wherever they appear in this prospectus supplement, the accompanying prospectus, or the documents incorporated by reference herein and therein, we do not assume, and specifically disclaim, any obligation to do so, whether as a result of new information, future events or otherwise.

SUMMARY

This summary highlights information contained elsewhere in this prospectus supplement and the accompanying prospectus and in the documents we incorporate by reference herein and therein. This summary does not contain all of the information that you should consider before deciding to invest in our common stock. You should read this entire prospectus supplement and the accompanying prospectus carefully, including the Risk Factors section contained in this prospectus supplement and under the heading Risk Factors in our Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2017, and our financial statements and the related notes and the other documents incorporated by reference herein or therein.

Overview

We are a science-driven, patient-focused biopharmaceutical company seeking to leverage our believed strengths across the continuum from discovery through commercialization by discovering and developing small molecule therapeutics to meet the needs of patients with complement-mediated diseases.

Our current focus is on our complement inhibitor platform, directed at advancing small molecule compounds that have the potential to be used in the treatment of immune-related diseases associated with the alternative pathway of the complement system. The complement system is a part of the human innate immune system and is believed to comprise three pathways: the alternative pathway, the lectin pathway and the classical pathway. We are advancing novel small molecules from this platform which target complement factor D, an essential protein within the amplification loop of the alternative pathway. The alternative pathway is thought to play a critical role in a number of disease conditions including rare orphan conditions such as paroxysmal nocturnal hemoglobinuria, or PNH, a blood disorder, C3 glomerulopathy, or C3G, and immune complex membranoproliferative glomerulonephritis, or IC-MPGN, both kidney diseases, as well as more prevalent indications such as geographic atrophy, or GA, an advanced form of dry age-related macular degeneration, or AMD, an ophthalmologic disease.

We have generated a platform of potent and specific orally-administered compounds that, in preclinical studies, bind to factor D with high affinity, resulting in alternative pathway inhibition. Our lead drug candidate, ACH-4471, has demonstrated complete suppression of alternative pathway complement activity after oral dosing in healthy volunteers in phase I clinical trials. In interim results from the first four patients in a phase II trial in PNH patients, ACH-4471 demonstrated reductions in lactate dehydrogenase, or LDH, a marker of hemolysis, increases in hemoglobin, and improvements in fatigue score. We believe that our alternative pathway factor D inhibitor compounds may have a pharmacological advantage by avoiding extravascular hemolysis, or red blood cell destruction outside of blood vessels, while protecting from intravascular hemolysis, or red blood cell destruction within blood vessels. In addition, we believe our alternative pathway factor D inhibitor compounds may be able to treat the proportion of patients with PNH who have suboptimal response to, or who fail to respond to, currently approved treatments for PNH. Further, because C3G is believed to be a disease primarily resulting from dysregulation of the alternative pathway, we believe our factor D inhibitors may be effective in treating patients with C3G and IC-MPGN. In addition, we are advancing other small molecule compounds with characteristics that have the potential to be appropriate for treatment of GA. We may also seek to advance other factor D inhibitors for oral systemic administration to treat PNH, C3G, IC-MPGN, GA, or other diseases.

We also intend to continue to leverage our extensive expertise in structural biology and synthetic chemistry to discover and develop additional small molecule compounds to meet other significant

unmet medical needs. We believe our drug discovery capabilities will allow us to further expand our drug candidate portfolio, providing us with strong growth potential and, over time, reducing our reliance on the success of any single drug candidate. Our research team has successfully discovered and advanced eight drug candidates into human clinical trials, with three additional compounds that we advanced into late-stage preclinical studies. We discovered ten of these eleven drug candidates and compounds in-house by applying our expertise in biology and synthetic chemistry. We intend to continue to capitalize on our internal drug discovery and development capabilities to expand our drug candidate portfolio. We have solicited and received scientific advice from the U.S. Food and Drug Administration, or FDA, the European Medicines Agency, or EMA, and the Medicines and Healthcare Products Regulatory Agency with respect to the design of the phase II trials for C3G and PNH and the safety monitoring plan, as well as the plans for clinical pharmacology and nonclinical studies needed to support potential future registration for ACH-4471. In addition, investigational new drug applications are open in the United States for both PNH and C3G.

Recent Developments

On November 14, 2017, we reported preliminary proof-of-concept results from the first patient group in our on-going phase II, open-label, 14-day study of ACH-4471 for patients with C3G or IC-MPGN. Interim data from the first patient group, consisting of two sentinel patients, demonstrated that ACH-4471 achieved complement alternative pathway inhibition resulting in a greater than 50% reduction in proteinuria, as measured by albumin to creatinine ratio over the 14-day treatment period, and demonstrated a favorable tolerability profile. We believe that these data suggest that ACH-4471 may reverse the alternative pathway hyperactivity that is believed to be the underlying driver of the pathogenesis and progression of C3G, based upon the observed improvements in complement biomarkers such as the ratio of C3 fragments to intact C3 in plasma (fragment:intact C3), plasma Bb levels, which is a byproduct of the interaction between factor D and factor B, and ex vivo Ba formation, which is a proxy for newly formed alternative pathway C3 convertase, as well as improvements in proteinuria levels following 14 days of treatment.

The U.S. FDA has granted orphan drug designation to ACH-4471 for the treatment of PNH, and the EMA s Committee for Orphan Medicinal Products, or COMP, has issued a positive opinion on ACH-4471 for orphan status in the European Union for the treatment of PNH. The COMP s opinion is submitted to the European Commission for a decision on whether or not to accept the opinion.

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 http://www.achillion.com. The information on our web site is not incorporated by reference into this prospectus supplement and should not be considered to be a part of this prospectus supplement. Our internet address is included in this prospectus supplement as an inactive textual reference only.

THE OFFERING

The following summary of the offering contains basic information about the offering and our common stock and is not intended to be complete. It does not contain all of the information that may be important to you. For a more complete understanding of our common stock, please refer to the section of the accompanying prospectus entitled Description of Capital Stock.

137,857,732 shares
The selling stockholder will receive all net proceeds from the sale of our common stock in this offering. We will not receive any of the proceeds from the sale of common stock by the selling stockholder.
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.
You should read the Risk Factors beginning on page S-4 of this prospectus supplement and in our filings with the SEC incorporated by reference in this prospectus supplement and the accompanying prospectus for a discussion of factors that you should consider carefully before deciding to invest in our common stock.

Nasdaq Global Select Market symbol

ACHN

The number of shares of our common stock outstanding before and after this offering is based on 137,857,732 shares of common stock outstanding as of November 1, 2017. Unless specifically stated otherwise, the number of shares of common stock outstanding before and after this offering excludes:

12,555,054 shares of our common stock issuable upon the exercise of stock options outstanding as of November 1, 2017, at a weighted average exercise price of \$6.37 per share;

4,793,666 shares of our common stock available for future issuance as of November 1, 2017 under our 2015 Stock Incentive Plan;

1,627,631 shares of our common stock available for future issuance as of November 1, 2017 under our 2006 Employee Stock Purchase Plan, as amended; and

21,367 shares of our common stock issuable upon the exercise of warrants outstanding as of November 1,

2017, at a weighted average exercise price of \$4.68 per share.

Except as otherwise indicated, all information in this prospectus supplement assumes no exercise of the outstanding options or warrants described above.

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RISK FACTORS

An investment in our common stock involves a high degree of risk. Before deciding whether to invest in our common stock, you should consider carefully the risks described below and discussed under the heading Risk Factors in our Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2017, together with all of the other information contained in this prospectus supplement, the accompanying prospectus and in our filings with the SEC, that we have incorporated by reference in this prospectus supplement and the accompanying prospectus. There may be other unknown or unpredictable economic, business, competitive, regulatory or other factors that could have material adverse effects on our future results. If any of these risks actually occurs, our business, financial condition, results of operations and cash flow could be seriously harmed. This could cause the trading price of our common stock to decline, resulting in a loss of all or part of your investment.

Risks Related to This Offering

After this offering, our executive officers, directors and principal stockholders will continue to have the ability to significantly influence all matters submitted to our stockholders for approval, which could have the effect of delaying, deferring or preventing a change in control of us and entrenching our management or board of directors.

Upon the closing of this offering, our directors, executive officers and stockholders who own more than 5% of our outstanding common stock, together with their affiliates and related persons, will beneficially own, in the aggregate, approximately 44.8% of our outstanding common stock, based on 137,857,732 shares of common stock outstanding as of November 1, 2017 (and assuming all of the shares offered hereby are sold by the selling stockholder). As a result, if these stockholders were to choose to act together, they would be able to significantly influence all matters submitted to our stockholders for approval, including the election and removal of directors and any merger, consolidation, sale of all or substantially all of our assets or similar transaction, as well as our management and affairs. 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 voting power may have the effect of delaying, deferring or preventing a change in control of our company on terms that other stockholders may desire and entrenching our management or board or directors.

Our stock price has been and may in the future be volatile, and the market price of our common stock may decline in value in the future and you could lose all or part of your investment.

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, 2009 to September 30, 2017, our stock price has ranged from a low of \$0.70 on January 2, 2009 to a high of \$16.87 on December 22, 2014. 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 current and planned preclinical and clinical trials of our drug candidates including our complement factor D drug candidates;

the results of clinical trials conducted by others on drugs that would compete with our drug candidates;

the announcements of clinical trial data by our competitors, particularly at high profile medical meetings, and the investment community s perception of and reaction to such data;

the entry into, modification of, or termination of collaborations and other key agreements between us and third parties;

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the entry into collaborations and other key agreements by our competitors;

market expectations about the timeliness of our entry into, failure to enter into, or termination of, collaboration arrangements with third parties;

the results of regulatory reviews and actions 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;

failure of any of our drug candidates, if approved, to achieve commercial success;

general and industry-specific economic conditions that may affect our business, financial condition and operations, including without limitation research and development expenditures;

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, or the anticipation of future sales, of our common stock by us, our insiders or other stockholders, including the selling stockholder to the extent that it does not sell all the shares it owns in this offering;

changes in the structure of health care payment systems;

period-to-period fluctuations in our financial results;

low trading volume of our common stock; and

the other factors described in this Risk Factors section and the Risk Factors section of our Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2017, which is incorporated by reference herein. 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 capital 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. For example, we, and certain of our current and former officers, were named as defendants in a consolidated class action lawsuit following our announcements regarding the FDA s clinical hold related to sovaprevir, our clinical-stage drug candidate for the treatment of chronic hepatitis C viral infection. On May 5, 2014, without any settlement payment by us, any individual defendant or any third party on their behalf, the lead plaintiffs in the consolidated class action lawsuit voluntarily dismissed all of their claims without prejudice.

Because we do not anticipate paying any cash dividends on our common stock in the foreseeable future, share price appreciation, if any, will be stockholders sole source of gain.

We have never declared or paid cash dividends on our common stock. 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.

Provisions in our corporate charter documents and under Delaware law could make an acquisition of us, which may be beneficial to our stockholders, more difficult and may prevent attempts by our stockholders to replace or remove our current management.

Provisions in our corporate charter and our bylaws may discourage, delay or prevent a merger, acquisition or other change in control of us that stockholders may consider favorable, including transactions in which a stockholder might otherwise receive a premium for his or her shares. These provisions could also limit the price that investors might be willing to pay in the future for shares of our common stock, thereby depressing the market price of our common stock. In addition, because our board of directors is responsible for appointing the members of our management team, these provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our board of directors. Among other things, these provisions:

establish a classified board of directors such that all members of the board are not elected at one time;

allow the authorized number of our directors to be changed only by resolution of our board of directors;

limit the manner in which stockholders can remove directors from the board;

establish advance notice requirements for nominations for election to the board of directors or for proposing matters that can be acted on at stockholder meetings;

require that stockholder actions must be effected at a duly called stockholder meeting and prohibit actions by our stockholders by written consent;

limit who may call a special meeting of stockholder meetings;

authorize our board of directors to issue preferred stock without stockholder approval, which could be used to institute a poison pill that would work to dilute the stock ownership of a potential hostile acquirer, effectively preventing acquisitions that have not been approved by our board of directors; and

require the approval of the holders of at least 75% of the votes that all our stockholders would be entitled to cast to amend or repeal certain provisions of our charter or bylaws.

Moreover, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the General Corporation Law of the State of Delaware, which prohibits a person who owns in excess of 15% of our outstanding voting stock from merging or combining with us for a period of three years after the date of the transaction in which the person acquired in excess of 15% of our outstanding voting stock, unless the merger or combination is approved in a prescribed manner. This could discourage, delay or prevent someone from acquiring us or merging with us, whether or not it is desired by, or beneficial to, our stockholders.

Future sales of our common stock by us or our existing stockholders, or the perception in the public markets that these sales may occur, may depress our stock price.

Sales of substantial amounts of shares of our common stock in the public market after this offering, or the perception that these sales could occur, could cause the market price of our common stock to decline and may make it more difficult for you to sell your common stock at a time and price that you deem appropriate. Based on the total number of outstanding shares of our common stock as of November 1, 2017, upon completion of this offering, we will have 137,857,732 shares of common stock outstanding.

We and our executive officers and directors have entered into lock-up agreements with the underwriters under which we and they have agreed, subject to certain exceptions, not to sell, directly or indirectly, any shares of common stock without the permission of Goldman Sachs & Co. LLC and Leerink Partners LLC for a period of 60 days following the date of this prospectus supplement. We refer to such period as the lock-up period. When the lock-up period expires, we and our executive officers and directors will be able to sell our shares in the public market, subject to compliance with applicable securities laws restrictions. In addition, Goldman Sachs & Co. LLC and Leerink Partners LLC may, in their sole discretion, release all or some portion of the shares subject to lock-up agreements at any time and for any reason. Sales of a substantial number of such shares upon expiration of the lock-up or otherwise, the perception that such sales may occur, or early release of these agreements, could cause the market price of our common stock to fall or make it more difficult for you to sell your common stock at a time and price that you deem appropriate.

USE OF PROCEEDS

The selling stockholder will receive all net proceeds from the sale of our common stock in this offering. We will not receive any of the proceeds from the sale of our common stock by the selling stockholder.

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. In addition, any future debt financing arrangement may contain terms prohibiting or limiting the amount of dividends that may be declared or paid on our common stock. Any future determination to pay dividends will be made at the discretion of our board of directors. See Risk Factors Risk Related to This Offering Because we do not anticipate paying any cash dividends on our common stock in the foreseeable future, share price appreciation, if any, will be stockholders sole source of gain. in this prospectus supplement.

PRICE RANGE OF COMMON STOCK

Our common stock is listed on the Nasdaq Global Select Market and trades under the symbol ACHN. The following table sets forth, for the quarterly periods indicated, the high and low sale price per share of our common stock as reported on the Nasdaq Global Select Market:

	High	Low
2015		
First Quarter	\$ 16.54	\$9.75
Second Quarter	\$ 11.05	\$8.13
Third Quarter	\$ 9.62	\$6.46
Fourth Quarter	\$ 10.95	\$6.41
2016		
First Quarter	\$ 10.66	\$5.57
Second Quarter	\$ 10.06	\$7.48
Third Quarter	\$ 9.49	\$7.36
Fourth Quarter	\$ 8.25	\$3.78
2017		
First Quarter	\$ 4.74	\$3.71
Second Quarter	\$ 5.17	\$3.15
Third Quarter	\$ 5.66	\$3.54
Fourth Quarter (through November 15, 2017)	\$ 4.82	\$ 3.03

On November 15, 2017, the last reported sale price of our common stock on the Nasdaq Global Select Market was \$3.03 per share. As of November 9, 2017, we had 66 holders of record of our common stock. The actual number of stockholders is greater than this number of record holders and includes stockholders who are beneficial owners but whose shares are held in street name by brokers and other nominees.

SELLING STOCKHOLDER

The following table presents information concerning the number and percentage of shares owned by the selling stockholder prior to the offering and the number and percentage of shares to be owned by the selling stockholder after the completion of the offering, assuming 137,857,732 shares of common stock outstanding as of November 1, 2017, which includes all shares to be sold by the selling stockholder in connection with this offering.

Beneficial ownership is determined under the SEC rules and regulations and generally includes any shares over which a person exercises sole or shared voting or investment power. The number of shares in the column Number of Shares Offered Hereby represents all of the shares of common stock that the selling stockholder is offering hereby.

For a discussion of certain arrangements between us and the selling stockholder, see note 5, Collaboration Agreement under Part I, Item 1. Financial Statements, in our Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2017, which is incorporated by reference in this prospectus supplement, and the section entitled Selling Stockholder in the accompanying prospectus. In addition, in connection with the filing of the registration statement of which this prospectus supplement and the accompanying prospectus form a part, the selling stockholder has agreed, subject to limited exceptions, to restrict its dispositions of our common stock. In connection with this offering, we have agreed to waive such restrictions pursuant to a letter agreement we have entered into with the selling stockholder. Under the letter agreement, we and the selling stockholder have also agreed to amend the investor agreement that we and the selling stockholder entered into on July 1, 2015 in connection with the selling stockholder s acquisition of the shares of common stock offered hereby. Such amendment provides that we may be obligated to pay a portion of the underwriting discounts and commissions of this offering. The amount of the underwriting discounts and commissions of this offering for which we may be responsible under the letter agreement will vary based on the difference between the last reported sale price of our common stock on the Nasdag Global Select Market on November 14, 2017 and the public offering price and will range from no obligation at all up to an obligation to pay underwriting discounts and commissions equal to 5.7% of the aggregate public offering price. The letter agreement also provides that the investor agreement will terminate and be of no further force or effect following the closing of this offering. However, under the letter agreement, the selling stockholder may sell less than all of the shares offered hereby upon our and the selling stockholder s mutual consent, each acting reasonably, in which case the selling stockholder would be restricted by us from disposing of any unsold shares until December 22, 2017, in accordance with the terms of our prior letter agreement with the selling stockholder. For additional information regarding certain arrangements between us and the selling stockholder, see also note 5, Collaboration Agreement under Part I, Item 1. Financial Statements, in our Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2017.

	Shares Beneficially		Shares to be Beneficially	
	Owned		Number of	Owned After
	Prior to Offering		Shares Offered	Offering
Name of Selling Stockholder	Number	Percentage	Hereby	Number Percentage
Johnson & Johnson Innovation-JJDC,				
Inc.(1)	18,367,346	13.3%	18,367,346	0.0%

(1) The selling stockholder is a wholly-owned subsidiary of Johnson & Johnson. The selling stockholder has shared voting and dispositive power with Johnson & Johnson with respect to all 18,367,346 shares being offered. Johnson & Johnson may be deemed to indirectly beneficially own the shares of common stock that are directly beneficially owned by the selling stockholder. The address for the selling stockholder is 410 George Street, New

Brunswick, New Jersey 08901, and the address for Johnson & Johnson is One Johnson & Johnson Plaza, New Brunswick, New Jersey 08933.

MATERIAL U.S. FEDERAL INCOME AND ESTATE TAX CONSIDERATIONS FOR NON-U.S. HOLDERS OF COMMON STOCK

The following is a discussion of the material U.S. federal income and estate tax considerations applicable to non-U.S. holders with respect to their ownership and disposition of shares of our common stock purchased in this offering. For purposes of this discussion, a non-U.S. holder means a beneficial owner (other than a partnership or other pass-through entity) of our common stock that is not for U.S. federal income tax purposes:

an individual who is a citizen or resident of the United States;

a corporation, or any other organization taxable as a corporation for U.S. federal income tax purposes, created or organized in or under the laws of the United States or of any state thereof or the District of Columbia;

an estate, the income of which is subject to U.S. federal income tax regardless of its source; or

a trust if (1) a U.S. court is able to exercise primary supervision over the trust s administration and one or more U.S. persons have the authority to control all of the trust s substantial decisions or (2) the trust has a valid election in effect under applicable U.S. Treasury Regulations to be treated as a U.S. person.

This discussion does not address the tax treatment of partnerships or other entities that are pass-through entities for U.S. federal income tax purposes or persons that hold our common stock through partnerships or such other pass-through entities. A partner in a partnership or other pass-through entity that will hold our common stock should consult his, her or its own tax advisor regarding the tax consequences of acquiring, holding and disposing of our common stock through a partnership or other pass-through entity, as applicable.

This discussion is based on current provisions of the U.S. Internal Revenue Code of 1986, as amended, which we refer to as the Code, existing and proposed U.S. Treasury Regulations promulgated thereunder, current administrative rulings and judicial decisions, all as in effect as of the date of this prospectus supplement and all of which are subject to change or to differing interpretation, possibly with retroactive effect. Any change or differing interpretation could alter the tax consequences to non-U.S. holders described in this prospectus supplement. There can be no assurance that the Internal Revenue Service, which we refer to as the IRS, will not challenge one or more of the tax consequences described herein. We assume in this discussion that a non-U.S. holder holds shares of our common stock as a capital asset, generally property held for investment for U.S. federal income tax purposes.

This discussion does not address all aspects of U.S. federal income and estate taxation that may be relevant to a particular non-U.S. holder in light of that non-U.S. holder s individual circumstances nor does it address any aspects of U.S. state, local or non-U.S. taxes, the alternative minimum tax or the Medicare tax on net investment income. This discussion also does not consider any specific facts or circumstances that may apply to a non-U.S. holder and does not address the special tax rules applicable to particular non-U.S. holders, such as:

insurance companies;

tax-exempt organizations;

financial institutions;

brokers or dealers in securities;

pension plans;

controlled foreign corporations;

passive foreign investment companies;

persons deemed to sell our common stock under the constructive sale provisions of the Code;

owners that hold our common stock as part of a straddle, hedge, conversion transaction, synthetic security or other integrated investment or who have elected to mark securities to market; and

certain former citizens or residents of the United States.

This discussion is for information only and is not, and is not intended to be, legal or tax advice. All prospective non-U.S. holders of our common stock should consult their own tax advisors with respect to the U.S. federal, state, local and non-U.S. tax consequences of the purchase, ownership and disposition of our common stock.

Distributions on our Common Stock

As discussed under Dividend policy above, we do not expect to pay cash dividends to holders of our common stock in the foreseeable future. If we make distributions in respect of our common stock, those distributions generally will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles, subject to the tax treatment described in the following paragraphs of this section. If a distribution exceeds our current and accumulated earnings and profits, the excess will be treated as a tax-free return of the non-U.S. holder s investment, up to such holder s tax basis in the common stock. Any remaining excess will be treated as capital gain, subject to the tax treatment described below in Gain on sale, exchange or other taxable disposition of our common stock. Any distributions will also be subject to the

discussion below under the sections titled Information reporting and backup withholding and FATCA. Dividends paid to a non-U.S. holder generally will be subject to withholding of U.S. federal income tax at a 30% rate

Dividends paid to a non-U.S. holder generally will be subject to withholding of U.S. federal income tax at a 30% rate or such lower rate as may be specified by an applicable income tax treaty between the United States and such holder s country of residence.

Dividends that are treated as effectively connected with a trade or business conducted by a non-U.S. holder within the United States and, if an applicable income tax treaty so provides, that are attributable to a permanent establishment or a fixed base maintained by the non-U.S. holder within the United States, are generally exempt from the 30% withholding tax if the non-U.S. holder satisfies applicable certification and disclosure requirements (generally including provision of a valid IRS Form W-8ECI (or applicable successor form) certifying that the dividends are effectively connected with the non-U.S. holder s conduct of a trade or business within the United States). However, such U.S. effectively connected income, net of specified deductions and credits, is taxed at the same graduated U.S. federal income tax rates applicable to United States persons (as defined in the Code). Any U.S. effectively connected income that is classified as a corporation for U.S. federal income tax purposes may also, under certain circumstances, be subject to an additional branch profits tax at a 30% rate or such lower rate as may be specified by an applicable income tax treaty between the United States and such holder s country of residence.

A non-U.S. holder of our common stock who claims the benefit of an applicable income tax treaty between the United States and such holder s country of residence generally will be required to provide a properly executed IRS Form

W-8BEN or W-8BEN-E (or successor form) and satisfy applicable certification and other requirements. Non-U.S. holders are urged to consult their own tax advisors regarding their entitlement to benefits under a relevant income tax treaty and the specific methods available to them to satisfy these requirements.

A non-U.S. holder that is eligible for a reduced rate of U.S. withholding tax under an income tax treaty may obtain a refund or credit of any excess amounts withheld by timely filing an appropriate claim for a refund with the IRS.

Gain on Sale, Exchange or Other Taxable Disposition of our Common Stock

In general (subject to the discussion below under the sections titled Information reporting and backup withholding and FATCA), a non-U.S. holder will not be subject to any U.S. federal income tax or withholding tax on any gain realized upon such holder s sale, exchange or other taxable disposition of shares of our common stock unless:

the gain is effectively connected with the non-U.S. holder s conduct of a U.S. trade or business and, if an applicable income tax treaty so provides, is attributable to a permanent establishment or a fixed base maintained by such non-U.S. holder in the United States, in which case the non-U.S. holder generally will be taxed on a net income basis at the graduated U.S. federal income tax rates applicable to United States persons (as defined in the Code) with respect to the gain and, if the non-U.S. holder is a foreign corporation, the branch profits tax described above in Distributions on our common stock also may apply;

the non-U.S. holder is a nonresident alien individual who is present in the United States for 183 days or more in the taxable year of the disposition and certain other conditions are met, in which case the non-U.S. holder will be subject to a 30% tax (or such lower rate as may be specified by an applicable income tax treaty between the United States and such holder s country of residence) on the net gain derived from the disposition, which may be offset by certain U.S. source capital losses of the non-U.S. holder, if any; or

we are, or have been, at any time during the five-year period preceding such disposition (or the non-U.S. holder s holding period, if shorter) a U.S. real property holding corporation, unless our common stock is regularly traded on an established securities market and the non-U.S. holder holds no more than 5% of our outstanding common stock, directly or indirectly, during the shorter of the five-year period ending on the date of the disposition or the period that the non-U.S. holder held our common stock. If we are determined to be a U.S. real property holding corporation and the foregoing exception does not apply, then the non-U.S. holder generally will be taxed on its net gain derived from the disposition at the graduated U.S. federal income tax rates applicable to United States persons (as defined in the Code). Generally, a corporation is a U.S. real property holding corporation only if the fair market value of its U.S. real property interests equals or exceeds 50% of the sum of the fair market value of its worldwide real property interests plus its other assets used or held for use in a trade or business. Although there can be no assurance, we do not believe that we are, or have been, a U.S. real property holding corporation, or that we are likely to become one in the future. No assurance can be provided that our common stock will continue to be regularly traded on an established securities market for purposes of the rules described above.

U.S. Federal Estate Tax

Shares of our common stock that are owned or treated as owned at the time of death by an individual who is not a citizen or resident of the United States, as specifically defined for U.S. federal estate tax purposes, are considered U.S. *situs* assets and will be included in the individual s gross estate for U.S. federal estate tax purposes. Such shares, therefore, may be subject to U.S. federal estate tax, unless an applicable estate tax or other treaty provides otherwise.

Information Reporting and Backup Withholding

We must report annually to the IRS and to each non-U.S. holder the gross amount of the distributions on our common stock paid to such holder and the tax withheld, if any, with respect to such distributions. Non-U.S. holders generally will have to comply with specific certification procedures to establish that the holder is not a United States person (as defined in the Code) in order to avoid backup withholding at the applicable rate with respect to dividends on our common stock. Generally, a holder will comply with such procedures if it provides a properly executed IRS Form W-8BEN or W-8BEN-E (or other applicable Form W-8), or otherwise meets documentary evidence requirements for establishing that it is a non-U.S. holder, or otherwise establishes an exemption. Dividends paid to non-U.S. holders subject to withholding of U.S. federal income tax, as described above in Distributions on our common stock, generally will be exempt from U.S. backup withholding.

Information reporting and backup withholding generally will apply to the proceeds of a disposition of our common stock by a non-U.S. holder effected by or through the U.S. office of any broker, U.S. or foreign, unless the holder certifies its status as a non-U.S. holder and satisfies certain other requirements, or otherwise establishes an exemption. Generally, information reporting and backup withholding will not apply to a payment of disposition proceeds to a non-U.S. holder where the transaction is effected outside the United States through a non-U.S. office of a broker. However, for information reporting purposes, dispositions effected through a non-U.S. office of a broker with substantial U.S. ownership or operations generally will be treated in a manner similar to dispositions effected through a U.S. office of a broker. Non-U.S. holders should consult their own tax advisors regarding the application of the information reporting and backup withholding rules to them.

Copies of information returns may be made available to the tax authorities of the country in which the non-U.S. holder resides or is incorporated under the provisions of a specific treaty or agreement.

Backup withholding is not an additional tax. Any amounts withhold under the backup withholding rules from a payment to a non-U.S. holder can be refunded or credited against the non-U.S. holder s U.S. federal income tax liability, if any, provided that an appropriate claim is timely filed with the IRS.

FATCA

Provisions of the Code commonly known as the Foreign Account Tax Compliance Act, or FATCA, generally impose a U.S. federal withholding tax at a rate of 30% on payments of dividends on, or gross proceeds from the sale or other disposition of, our common stock paid to a foreign entity unless: (i) if the foreign entity is a foreign financial institution, such foreign entity undertakes certain due diligence, reporting, withholding and certification obligations; (ii) if the foreign entity is not a foreign financial institution, such foreign entity identifies certain of its U.S. investors, if any; or (iii) the foreign entity is otherwise exempt under FATCA.

Withholding under FATCA generally (1) applies to payments of dividends on our common stock, and (2) will apply to payments of gross proceeds from a sale or other disposition of our common stock made after December 31, 2018. Under certain circumstances, a non-U.S. holder may be eligible for refunds or credits of the tax. An intergovernmental agreement between the United States and an applicable foreign country may modify the requirements described in this section. Non-U.S. holders should consult their own tax advisors regarding the possible implications of FATCA on their investment in our common stock and the entities through which they hold our common stock, including, without limitation, the process and deadlines for meeting the applicable requirements to prevent the imposition of the 30% withholding tax under FATCA.

The preceding discussion of material U.S. federal tax considerations is for information only. It is not legal or tax advice. Prospective investors should consult their own tax advisors regarding the particular U.S. federal, state, local and non-U.S. tax consequences of purchasing, holding and disposing of our common stock, including the consequences of any proposed changes in applicable laws.

UNDERWRITING

We, the selling stockholder and the underwriters named below have entered into an underwriting agreement with respect to the shares being offered. Subject to certain conditions, each underwriter has severally agreed to purchase the number of shares indicated in the following table. Goldman Sachs & Co. LLC and Leerink Partners LLC are the representatives of the underwriters.

Underwriters	Number of Shares
Goldman Sachs & Co. LLC	10,102,040
Leerink Partners LLC	8,265,306
Total	18,367,346

The underwriters are committed to take and pay for all of the shares being offered, if any are taken.

The following table shows the per share and total underwriting discounts and commissions to be paid to the underwriters by the selling stockholder.

Paid by the Selling Stockholder			
Per Share	\$	0.165	
Total	\$ 3,03	0,612.09	
Shares sold by the underwriters to the public will initially be offered at the public offering price set for	orth on tl	ne cover	
of this prospectus. Any shares sold by the underwriters to securities dealers may be sold at a discount of up to			
\$0.0990 per share from the public offering price. After the initial offering of the shares, the representatives may			
change the offering price and the other selling terms. The offering of the shares by the underwriters is subject to			
receipt and acceptance and subject to the underwriters right to reject any order in whole or in part.			

We and our directors and executive officers have agreed with the underwriters, subject to certain exceptions, not to dispose of or hedge any of their common stock or securities convertible into or exchangeable for shares of common stock during the period from the date of this prospectus supplement continuing through the date that is 60 days after the date of this prospectus supplement, except with the prior written consent of the representatives. This agreement does not apply to any existing employee benefit plans.

In connection with the offering, the underwriters may purchase and sell shares of common stock in the open market. These transactions may include short sales, stabilizing transactions and purchases to cover positions created by short sales. Short sales involve the sale by the underwriters of a greater number of shares than they are required to purchase in the offering, and a short position represents the amount of such sales that have not been covered by subsequent purchases. The underwriters must cover any such short position by purchasing shares in the open market. Stabilizing transactions consist of various bids for or purchases of common stock made by the underwriters in the open market prior to the completion of the offering.

The underwriters may also impose a penalty bid. This occurs when a particular underwriter repays to the underwriters a portion of the underwriting discount received by it because the representatives have repurchased shares sold by or for the account of such underwriter in stabilizing or short covering transactions.

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Purchases to cover a short position and stabilizing transactions, as well as other purchases by the underwriters for their own accounts, may have the effect of preventing or retarding a decline in the market price of the company s stock, and together with the imposition of the penalty bid, may stabilize, maintain or otherwise affect the market price of the common stock. As a result, the price of the common stock may be higher than the price that otherwise might exist in the open market. The underwriters are not required to engage in these activities and may end any of these activities at any time. These transactions may be effected on The Nasdaq Stock Market LLC, in the over-the-counter market or otherwise.

Selling Restrictions

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), an offer to the public of any of our shares may not be made in that Relevant Member State, except that an offer to the public in that Relevant Member State of any of our shares may be made at any time under the following exemptions under the Prospectus Directive:

- (a) to any legal entity which is a qualified investor as defined in the Prospectus Directive;
- (b) to fewer than 150 natural or legal persons (other than qualified investors as defined in the Prospectus Directive), subject to obtaining the prior consent of the representatives for any such offer; or

(c) in any other circumstances falling within Article 3(2) of the Prospectus Directive, provided that no such offer of our shares shall result in a requirement for the publication by us or the representatives of a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an offer to the public in relation to our 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 our shares to be offered so as to enable an investor to decide to purchase our shares, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State, the expression Prospectus Directive means Directive 2003/71/EC (as amended), including by Directive 2010/73/EU, and includes any relevant implementing measure in the Relevant Member State.

United Kingdom

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.

Canada

The shares may be sold only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 Prospectus Exemptions or subsection 73.3(1) of the Securities Act (Ontario), and are permitted clients, as defined in National Instrument 31-103 Registration Requirements, Exemptions and Ongoing Registrant Obligations. Any resale of the shares must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

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Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser s province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser s province or territory for particulars of these rights or consult with a legal advisor.

Pursuant to section 3A.3 (or, in the case of securities issued or guaranteed by the government of a non-Canadian jurisdiction, section 3A.4) of National Instrument 33-105 Underwriting Conflicts (NI 33-105), the underwriters are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

Hong Kong

The shares may not be offered or sold in Hong Kong by means of any document other than (i) in circumstances which do not constitute an offer to the public within the meaning of the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Cap. 32 of the Laws of Hong Kong) (the Companies (Winding Up and Miscellaneous Provisions) Ordinance) or which do not constitute an invitation to the public within the meaning of the Securities and Futures Ordinance (Cap. 571 of the Laws of Hong Kong) (the Securities and Futures Ordinance), or (ii) to professional investors as defined in the Securities and Futures Ordinance and any rules made thereunder, or (iii) in other circumstances which do not result in the document being a prospectus as defined in the Companies (Winding Up and Miscellaneous Provisions) Ordinance, and no advertisement, invitation or document relating to the shares may be issued or may be in the possession of any person for the purpose of issue (in each case whether in Hong Kong or elsewhere), which is directed at, or the contents of which are likely to be accessed or read by, the public in Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to shares which are or are intended to be disposed of only to persons outside Hong Kong or only to professional investors in Hong Kong as defined in the Securities and any rules made thereunder.

Singapore

This document has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this document and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the shares may not be circulated or distributed, nor may the shares be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor (as defined under Section 4A of the Securities and Futures Act, Chapter 289 of Singapore (the SFA)) under Section 274 of the SFA, (ii) to a relevant person (as defined in Section 275(2) of the SFA) pursuant to Section 275(1) of the SFA, or any person pursuant to Section 275(1A) of the SFA, and in accordance with the conditions specified in Section 275 of the SFA or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA, in each case subject to conditions set forth in the SFA.

Where the shares are subscribed or purchased under Section 275 of the SFA by a relevant person which is a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor, the securities (as defined in Section 239(1) of the SFA) of that corporation shall not be transferable for 6 months after that corporation has acquired the shares under Section 275 of the SFA except: (1) to an institutional investor under Section 274 of the SFA or to a relevant person (as defined in Section 275(2) of the SFA), (2) where such transfer arises from an offer in that corporation securities pursuant to Section 275(1A) of the SFA, (3) where no consideration is or will be given for the transfer, (4) where

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the transfer is by operation of law, (5) as specified in Section 276(7) of the SFA, or (6) as specified in Regulation 32 of the Securities and Futures (Offers of Investments) (Shares and Debentures) Regulations 2005 of Singapore (Regulation 32).

Where the shares are subscribed or purchased under Section 275 of the SFA by a relevant person which is a trust (where the trustee is not an accredited investor (as defined in Section 4A of the SFA)) whose sole purpose is to hold investments and each beneficiary of the trust is an accredited investor, the beneficiaries rights and interest (howsoever described) in that trust shall not be transferable for 6 months after that trust has acquired the shares under Section 275 of the SFA except: (1) to an institutional investor under Section 274 of the SFA or to a relevant person (as defined in Section 275(2) of the SFA), (2) where such transfer arises from an offer that is made on terms that such rights or interest are acquired at a consideration of not less than S\$200,000 (or its equivalent in a foreign currency) for each transaction (whether such amount is to be paid for in cash or by exchange of securities or other assets), (3) where no consideration is or will be given for the transfer, (4) where the transfer is by operation of law, (5) as specified in Section 276(7) of the SFA, or (6) as specified in Regulation 32.

Japan

The shares have not been and will not be registered under the Financial Instruments and Exchange Act of Japan (Act No. 25 of 1948, as amended), or the FIEA. The shares may not be offered or sold, directly or indirectly, in Japan or to or for the benefit of any resident of Japan (including any person resident in Japan or any corporation or other entity organized under the laws of Japan) or to others for reoffering or resale, directly or indirectly, in Japan or to or for the benefit of any resident of Japan, except pursuant to an exemption from the registration requirements of the FIEA and otherwise in compliance with any relevant laws and regulations of Japan.

The selling stockholder estimates that its share of the total expenses of the offering, excluding underwriting discounts and commissions, and after reimbursement of expenses by us pursuant to the terms of the investor agreement between us and the selling stockholder dated as of July 1, 2015, as amended, will be approximately \$0. For a description of certain arrangements between us and the selling stockholder, see Selling Stockholder in this prospectus supplement and the accompanying prospectus. We have agreed to reimburse the underwriters for certain of its expenses in an amount up to \$15,000.

The company and the selling stockholder have agreed to indemnify the several underwriters against certain liabilities, including liabilities under the Securities Act of 1933.

The underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include sales and trading, commercial and investment banking, advisory, investment management, investment research, principal investment, hedging, market making, brokerage and other financial and non-financial activities and services. Certain of the underwriters and their respective affiliates have provided, and may in the future provide, a variety of these services to the issuer and to persons and entities with relationships with the issuer, for which they received or will receive customary fees and expenses.

In the ordinary course of their various business activities, the underwriters and their respective affiliates, officers, directors and employees may purchase, sell or hold a broad array of investments and actively trade securities, derivatives, loans, commodities, currencies, credit default swaps and other financial instruments for their own account and for the accounts of their customers, and such investment and trading activities may involve or relate to assets, securities and/or instruments of the issuer (directly, as collateral securing other obligations or otherwise) and/or persons and entities with relationships with the issuer. The underwriters and their respective affiliates may also communicate independent investment recommendations, market color or trading ideas and/or publish or express

independent research views in respect of such assets, securities or instruments and may at any time hold, or recommend to clients that they should acquire, long and/or short positions in such assets, securities and instruments.

LEGAL MATTERS

The validity of the shares of common stock offered hereby will be passed upon for us by Wilmer Cutler Pickering Hale and Dorr LLP, New York, New York. Certain legal matters will be passed upon for the underwriters by Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., Boston, Massachusetts.

EXPERTS

The financial statements and management s assessment of the effectiveness of internal control over financial reporting (which is included in Management s Report on Internal Control over Financial Reporting) incorporated in this prospectus supplement by reference to the Annual Report on Form 10-K for the year ended December 31, 2016 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.

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WHERE YOU CAN FIND MORE INFORMATION

We are subject to the information and periodic reporting requirements of the Exchange Act, and, in accordance therewith, file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public over the Internet at the SEC s website at http://www.sec.gov. Copies of certain information filed by us with the SEC are also available on our website at http://www.achillion.com. Our website is not a part of this prospectus supplement and is not incorporated by reference in this prospectus supplement. You may also read and copy any document we file at the SEC s Public Reference Room, 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the Public Reference Room.

This prospectus supplement and the accompanying prospectus are part of a registration statement we filed with the SEC. This prospectus supplement and the accompanying prospectus omit some information contained in the registration statement in accordance with SEC rules and regulations. You should review the information and exhibits in the registration statement for further information about us and the securities we are offering. Statements in this prospectus supplement and the accompanying prospectus concerning any document we filed as an exhibit to the registration statement or that we otherwise filed with the SEC are not intended to be comprehensive and are qualified by reference to these filings. You should review the complete document to evaluate these statements.

INCORPORATION BY REFERENCE

The SEC allows us to incorporate by reference much of the information we file with the SEC, which means that we can disclose important information to you by referring you to those publicly available documents. The information that we incorporate by reference in this prospectus supplement is considered to be part of this prospectus supplement and the accompanying prospectus. Because we are incorporating by reference future filings with the SEC, this prospectus supplement is continually updated and those future filings may modify or supersede some of the information included or incorporated in this prospectus supplement and the accompanying prospectus. This means that you must look at all of the SEC filings that we incorporate by reference to determine if any of the statements in this prospectus supplement, the accompanying prospectus or in any document previously incorporated by reference herein or therein have been modified or superseded. This prospectus supplement incorporates by reference the documents listed below (File No. 001-33095) and any future filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended (in each case, other than those documents or the portions of those documents deemed to have been furnished and not filed in accordance with SEC rules) until the offering of the securities offered hereby is terminated or completed:

Annual Report on Form 10-K for the fiscal year ended December 31, 2016, filed with the SEC on February 23, 2017;

The information specifically incorporated by reference into our Annual Report on Form 10-K for the fiscal year ended December 31, 2016 from our Definitive Proxy Statement on Schedule 14A, filed with the SEC on April 17, 2017, as amended and supplemented by the Definitive Additional Materials on Schedule 14A that we filed with the SEC on May 8, 2017;

Quarterly Reports on Form 10-Q for the quarterly periods ended March 31, 2017, June 30, 2017 and September 30, 2017, filed with the SEC on May 4, 2017, August 8, 2017 and November 1, 2017, respectively;

Current Reports on Form 8-K filed on May 24, 2017, July 10, 2017, September 11, 2017, September 11, 2017 and November 14, 2017; and

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The description of our common stock contained in our Registration Statement on Form 8-A filed on October 18, 2006, including any amendments or reports filed for the purpose of updating such description. You may request a copy of these filings, at no cost, by writing or telephoning us at the following address and telephone number:

Achillion Pharmaceuticals, Inc.

Attention: Investor Relations

300 George Street

New Haven, Connecticut 06511-6624

Phone: (203) 624-7000

S-23

PROSPECTUS

Achillion Pharmaceuticals, Inc.

\$250,000,000

of

Common Stock

Preferred Stock

Warrants

Units

And

18,367,346 Shares

of

Common Stock Offered by the Selling Stockholder

We may offer and sell securities from time to time in one or more offerings of up to \$250,000,000 in aggregate offering price. This prospectus describes the general terms of these securities and the general manner in which these securities will be offered. We will provide the specific terms of these securities in supplements to this prospectus. The prospectus supplements will also describe the specific manner in which these securities will be offered and may also supplement, update or amend information contained in this document. You should read this prospectus and any applicable prospectus supplement before you invest.

In addition to the primary offering of securities described above, the selling stockholder identified in this prospectus may from time to time sell up to 18,367,346 shares of common stock. We will not receive any proceeds from the sale, if any, of common stock by the selling stockholder. Unless otherwise set forth in a prospectus supplement, the selling stockholders will pay any underwriting discounts and commissions and transfer taxes incurred by the selling stockholder in disposing of the shares of common stock.

We or the selling stockholder may offer such securities in amounts, at prices and on terms determined at the time of offering. The securities may be sold directly to you, through agents, or through underwriters and dealers. If agents,

underwriters or dealers are used to sell the securities, we will name them and describe their compensation in a prospectus supplement.

Our common stock is listed on the NASDAQ Global Select Market under the symbol ACHN.

Investing in these securities involves certain risks. See <u>Risk Factors</u> on page 5 of this prospectus and in any accompanying prospectus supplement and in the documents incorporated by reference herein and therein for a discussion of the factors you should carefully consider before deciding to purchase these securities.

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.

The date of this prospectus is April 28, 2017.

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, which we refer to as the SEC, utilizing a shelf registration process. Under this shelf registration process, we may from time to time sell any combination of the securities described in this prospectus in one or more offerings for an aggregate initial offering price of up to \$250,000,000. In addition to the primary offering of securities, the selling stockholder may from time to time sell up to 18,367,346 shares of our common stock described in this prospectus in one or more secondary offerings.

This prospectus provides you with a general description of the securities we or the selling stockholder may offer. Each time we or the selling stockholder sell securities, we will provide one or more prospectus supplements that will contain specific information about the terms of the offering. The prospectus supplement may also add, update or change information contained in this prospectus. You should read both this prospectus and the accompanying prospectus supplement together with the additional information described under the heading Where You Can Find More Information beginning on page 2 of this prospectus.

You should rely only on the information contained in or incorporated by reference in this prospectus, any accompanying prospectus supplement or in any related free writing prospectus filed by us with the SEC. Neither we, nor the selling stockholder (nor any of our or their respective affiliates) have authorized anyone to provide you with different information. This prospectus and any accompanying prospectus supplement do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the securities described in the accompanying prospectus supplement or an offer to sell or the solicitation of an offer to buy such securities in any circumstances in which such offer or solicitation is unlawful. You should assume that the information appearing in this prospectus, any prospectus supplement, the documents incorporated by reference and any related free writing prospectus is accurate only as of their respective dates. Our business, financial condition, results of operations and prospects may have changed materially since those dates.

Unless otherwise stated, all references to us, our, Achillion, we, the Company and similar designations refer to Achillion Pharmaceuticals, Inc. 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.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public over the Internet at the SEC s website at http://www.sec.gov. Copies of certain information filed by us with the SEC are also available on our website at http://www.achillion.com. Our website is not a part of this prospectus and is not incorporated by reference in this prospectus. You may also read and copy any document we file at the SEC s Public Reference Room, 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the Public Reference Room.

This prospectus is part of a registration statement we filed with the SEC. This prospectus omits some information contained in the registration statement in accordance with SEC rules and regulations. You should review the information and exhibits in the registration statement for further information about us and the securities we are offering. Statements in this prospectus concerning any document we filed as an exhibit to the registration statement or that we otherwise filed with the SEC are not intended to be comprehensive and are qualified by reference to these filings. You should review the complete document to evaluate these statements.

INCORPORATION BY REFERENCE

The SEC allows us to incorporate by reference much of the information we file with the SEC, which means that we can disclose important information to you by referring you to those publicly available documents. The information that we incorporate by reference in this prospectus is considered to be part of this prospectus. Because we are incorporating by reference future filings with the SEC, this prospectus is continually updated and those future filings may modify or supersede some of the information included or incorporated in this prospectus. This means that you must look at all of the SEC filings that we incorporate by reference to determine if any of the statements in this prospectus or in any document previously incorporated by reference have been modified or superseded.

This prospectus incorporates by reference the documents listed below (File No. 001-33095) and any future filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, or the Exchange Act (in each case, other than those documents or the portions of those documents not deemed to be filed) between the date of the initial registration statement and the effectiveness of the registration statement and following the effectiveness of the registration statement until the offering of the securities under the registration statement is terminated or completed:

Annual Report on Form 10-K for the fiscal year ended December 31, 2016, including the information specifically incorporated by reference into the Annual Report on Form 10-K from our definitive proxy statement for the 2017 Annual Meeting of Stockholders; and

The description of our common stock contained in our Registration Statement on Form 8-A filed on October 18, 2006, including any amendments or reports filed for the purpose of updating such description. You may request a copy of these filings, at no cost, by writing or telephoning us at the following address or telephone number:

Achillion Pharmaceuticals, Inc.

Attention: Investor Relations

300 George Street

New Haven, Connecticut 06511-6624

Phone: (203) 624-7000

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the information incorporated by reference in this prospectus include forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Exchange Act. These statements are based on current expectations, estimates, forecasts and projections about the industry in which we operate and the beliefs and assumptions of our management. Words such as expects, anticipates, targets. goals, projects. intends, plans, believes, estimates. continues, and ma seeks. such words and similar expressions are intended to identify such forward-looking statements. In addition, any statements that refer to projections regarding our future financial performance, clinical development plans and timelines; our anticipated growth and trends in our businesses; our capital needs and capital expenditures; competitive changes in the marketplace for our product candidates; our ability to innovate new products and technologies; our collaborations with third parties; intellectual property and litigation matters; potential acquisitions and divestitures; key personnel; the effect of new accounting pronouncements and other characterizations of future events or circumstances are forward-looking statements. You are cautioned that these forward-looking statements are only predictions and are subject to risks, uncertainties and assumptions that are referenced in the section of any accompanying prospectus supplement entitled Risk Factors. You should also carefully review the risk factors and cautionary statements described in the other documents we file from time to time with the SEC, specifically our most recent Annual Report on Form 10-K, our Quarterly Reports on Form 10-Q and our Current Reports on Form 8-K. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures or investments that we may make. We undertake no obligation to revise or update any forward-looking statements, except to the extent required by law.

ABOUT ACHILLION PHARMACEUTICALS, INC.

We are a science-driven, patient-focused biopharmaceutical company seeking to leverage our believed strengths across the continuum from discovery through commercialization by discovering and developing small molecule therapeutics to meet the needs of patients with infectious and complement-mediated diseases in our goal of providing better treatments for people with serious diseases. We employ a highly-disciplined discovery and development approach that has allowed us to pursue best-in-class oral antiviral therapy for chronic hepatitis C and build a platform of potent and specific complement inhibitor drug candidates. We are seeking to rapidly advance our efforts to become a fully-integrated pharmaceutical company with a goal of bringing life-saving medicines to patients with complement-mediated diseases.

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 http://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 textual reference only.

RISK FACTORS

Investing in our securities involves significant risks. Before deciding whether to invest in our securities, you should consider carefully the risks, uncertainties and assumptions described in this prospectus and any accompanying prospectus supplement, including the risk factors set forth in our filings with the SEC that are incorporated by reference herein and therein, including the risk factors in our most recent Annual Report on Form 10-K, as revised or supplemented by our most recent Quarterly Reports on Form 10-Q, and which may be amended, supplemented or superseded from time to time by other reports we file with the SEC in the future. There may be other unknown or unpredictable economic, business, competitive, regulatory or other factors that could have material adverse effects on our future results. If any of these risks actually occurs, our business, business prospects, financial condition or results of operations could be seriously harmed. Please also read carefully the section above entitled Cautionary Note Regarding Forward-Looking Statements.

USE OF PROCEEDS

We intend to use the net proceeds from the sale of any securities offered by us under this prospectus for general corporate purposes unless otherwise indicated in the applicable prospectus supplement. General corporate purposes may include research and development expenditures, the acquisition of companies or businesses, the acquisition or licensing of intangible assets, repayment and refinancing of debt, working capital and capital expenditures. We may temporarily invest such net proceeds in investment-grade, interest-bearing securities until they are used for their stated purpose. We have not determined the amount of net proceeds to be used specifically for such purposes. As a result, management will retain broad discretion over the allocation of net proceeds.

We will not receive any proceeds from the sale, if any, of common stock by the selling stockholder.

The selling stockholder will pay any underwriting discounts and commissions and expenses incurred by it for brokerage, accounting, tax or legal services or any other expenses incurred by it in disposing of its shares. We will bear all other costs, fees and expenses incurred in effecting the registration of the shares covered by this prospectus, including, without limitation, all registration and filing fees, Nasdaq Global Select Market listing fees and fees and expenses of our counsel and our accountants.

RATIO OF COMBINED FIXED CHARGES AND PREFERENCE DIVIDENDS TO EARNINGS

The following table sets forth our ratio of combined fixed charges and preference dividends to earnings for each of the periods indicated. You should read this table in conjunction with the financial statements and notes incorporated by reference in this prospectus.

	December 31, 2016	December 31, 2015	Fiscal Year Ended December 31, 2014	December 31, 2013	December 31, 2012	
Ratio of combined						
fixed charges and						
preference dividends						
to earnings	N/A	N/A	N/A	N/A	N/A	
We have computed the ratio of combined fixed charges and preference dividends to earnings set forth above by						
dividing one too loss hefers fined shares and meters and inidends her fined shares and meters and inidends Fined						

dividing pre-tax loss before fixed charges and preference dividends by fixed charges and preference dividends. Fixed charges are the sum of the following:

interest expensed and capitalized;

amortized premiums related to indebtedness; and

an estimate of the interest within rental expense.

We did not pay any cash dividends on any shares of our capital stock during the periods set forth above.

We did not record earnings for any of the fiscal years ended December 31, 2016, 2015, 2014, 2013, and 2012. Accordingly, our earnings were insufficient to cover fixed charges for such periods and we are unable to disclose a ratio of combined fixed charges and preference dividends to earnings for such periods. The dollar amount of the deficiency in earnings available for fixed charges and preference dividends for the fiscal years ended December 31, 2016, 2015, 2014, 2013 and 2012 was approximately \$61.7 million, \$5.0 million, \$69.0 million, \$58.9 million and \$47.1 million, respectively.

DESCRIPTION OF CAPITAL STOCK

The following description of our capital stock is intended as a summary only. This description is based upon, and is qualified by reference to, our certificate of incorporation, our by-laws and applicable provisions of Delaware corporate law. You should read our certificate of incorporation and by-laws, which are filed as exhibits to the registration statement of which this prospectus forms a part, for the provisions that are important to you.

Our authorized capital stock consists of 200,000,000 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

Annual Meeting. Annual meetings of our stockholders are held on the date designated in accordance with our by-laws. Special meetings of our stockholders may be called for any purpose by our board of directors, our chairman of the board, our chief executive officer or our president, but such special meetings may not be called by any other person or persons. Notice of annual or special meetings must be given, in a manner specified in our by-laws and consistent with the General Corporation Law of the State of Delaware, to each stockholder entitled to vote at such meeting not less than ten nor more than 60 days before the date of the meeting. The presence in person or by proxy of the holders of record of a majority of our issued and outstanding shares entitled to vote at such meeting constitutes a quorum for the transaction of business at meetings of the stockholders. Notice must state the place, date and time of the meeting and the means of remote communications, if any, by which stockholders and proxyholders may be deemed to be present in person and vote at such meeting. The notice of a special meeting shall state, in addition, the purpose or purposes for which the meeting is called. Except as otherwise provided by law, our certificate of incorporation or our by-laws, all elections shall be decided by a plurality of the votes cast by the stockholders entitled to vote on the election, and all other questions shall be decided by the affirmative vote of the holders of a majority of voting power of the shares of stock present or represented and voting on the matter (or if there are two or more classes of stock entitled to vote as separate classes, then in the case of each such class, the holders of a majority in voting power of the shares of stock of that class present or represented and voting on such matter) at a duly held meeting of stockholders at which a quorum is present.

Voting Rights. Each holder of common stock is entitled to one vote for each share held on all matters to be voted upon by stockholders.

Dividends. The holders of common stock, after any preferences of holders of any preferred stock, are entitled to receive dividends when and if declared by the board of directors out of legally available funds.

Liquidation and Dissolution. If we are liquidated or dissolved, the holders of the common stock will be entitled to share in our assets available for distribution to stockholders in proportion to the amount of common stock they own. The amount available for common stockholders is calculated after payment of liabilities. Holders of any preferred stock will receive a preferential share of our assets before the holders of the common stock receive any assets.

Other Rights. Holders of the common stock have no right to:

convert the stock into any other security;

have the stock redeemed; or

purchase additional stock or to maintain their proportionate ownership interest.

The common stock does not have cumulative voting rights. Holders of shares of the common stock are not required to make additional capital contributions.

Transfer Agent and Registrar. Computershare Trust Company, N.A. is our transfer agent and registrar for the common stock.

Preferred Stock

The terms of any series of preferred stock may differ from the terms described below. The specific terms of any series of preferred stock offered pursuant to this prospectus will be described in the prospectus supplement relating to that series of preferred stock.

We are authorized to issue blank check preferred stock, which may be issued in one or more series upon authorization of our board of directors. Our board of directors is authorized to fix the designation of the series, the number of authorized shares of the series, dividend rights and terms, conversion rights, voting rights, redemption rights and terms, liquidation preferences and any other rights, powers, preferences and limitations applicable to each series of preferred stock. The authorized shares of our preferred stock are available for issuance without further action by our stockholders, unless such action is required by applicable law or the rules of any stock exchange on which our securities may be listed. If the approval of our stockholders is not required for the issuance of shares of our preferred stock, our board may determine not to seek stockholder approval.

A series of our preferred stock could, depending on the terms of such series, impede the completion of a merger, tender offer or other takeover attempt. Our board of directors will make any determination to issue preferred shares based upon its judgment as to the best interests of our stockholders. Our directors, in so acting, could issue preferred stock having terms that could discourage an acquisition attempt through which an acquirer may be able to change the composition of our board of directors, including a tender offer or other transaction that some, or a majority, of our stockholders might believe to be in their best interests or in which stockholders might receive a premium for their stock over the then-current market price of the stock.

The preferred stock has the terms described below unless otherwise provided in the prospectus supplement relating to a particular series of preferred stock. You should read the prospectus supplement relating to the particular series of preferred stock being offered for specific terms, including:

the designation and stated value per share of the preferred stock and the number of shares offered;

the amount of liquidation preference per share;

the price at which the preferred stock will be issued;

the dividend rate, or method of calculation of dividends, the dates on which dividends will be payable, whether dividends will be cumulative or noncumulative and, if cumulative, the dates from which dividends will commence to accumulate;

any redemption or sinking fund provisions;

if other than the currency of the United States, the currency or currencies including composite currencies in which the preferred stock is denominated and/or in which payments will or may be payable;

any conversion provisions; and

any other rights, preferences, privileges, limitations and restrictions on the preferred stock.

The preferred stock will, when issued, be fully paid and non-assessable. Unless otherwise specified in the prospectus supplement, each series of preferred stock will rank equally as to dividends and liquidation rights in all respects with each other series of preferred stock. The rights of holders of shares of each series of preferred stock will be subordinate to those of our general creditors.

Rank. Unless otherwise specified in the prospectus supplement, the preferred stock will, with respect to dividend rights and rights upon our liquidation, dissolution or winding up of our affairs, rank:

senior to our common stock and to all equity securities ranking junior to such preferred stock with respect to dividend rights or rights upon our liquidation, dissolution or winding up of our affairs;

on a parity with all equity securities issued by us, the terms of which specifically provide that such equity securities rank on a parity with the preferred stock with respect to dividend rights or rights upon our liquidation, dissolution or winding up of our affairs; and

junior to all equity securities issued by us, the terms of which specifically provide that such equity securities rank senior to the preferred stock with respect to dividend rights or rights upon our liquidation, dissolution or winding up of our affairs.

The term equity securities does not include convertible debt securities.

Dividends. Holders of the preferred stock of each series will be entitled to receive, when, as and if declared by our board of directors, cash dividends at such rates and on such dates described in the prospectus supplement. Different series of preferred stock may be entitled to dividends at different rates or based on different methods of calculation. The dividend rate may be fixed or variable or both. Dividends will be payable to the holders of record as they appear on our stock books on record dates fixed by our board of directors, as specified in the applicable prospectus supplement.

Dividends on any series of preferred stock may be cumulative or noncumulative, as described in the applicable prospectus supplement. If our board of directors does not declare a dividend payable on a dividend payment date on any series of noncumulative preferred stock, then the holders of that noncumulative preferred stock will have no right to receive a dividend for that dividend payment date, and we will have no obligation to pay the dividend accrued for that period, whether or not dividends on that series are declared payable on any future dividend payment dates. Dividends on any series of cumulative preferred stock will accrue from the date we initially issue shares of such series or such other date specified in the applicable prospectus supplement.

No dividends may be declared or paid or funds set apart for the payment of any dividends on any parity securities unless full dividends have been paid or set apart for payment on the preferred stock. If full dividends are not paid, the preferred stock will share dividends pro rata with the parity securities.

No dividends may be declared or paid or funds set apart for the payment of dividends on any junior securities unless full dividends for all dividend periods terminating on or prior to the date of the declaration or payment will have been paid or declared and a sum sufficient for the payment set apart for payment on the preferred stock.

Liquidation Preference. Upon any voluntary or involuntary liquidation, dissolution or winding up of our affairs, then, before we make any distribution or payment to the holders of any common stock or any other class or series of our capital stock ranking junior to the preferred stock in the distribution of assets upon any liquidation, dissolution or winding up of our affairs, the holders of each series of preferred stock shall be entitled to receive out of assets legally available for distribution to stockholders, liquidating distributions in the amount of the liquidation preference per share set forth in

the prospectus supplement, plus any accrued and unpaid dividends thereon. Such dividends will not include any accumulation in respect of unpaid noncumulative dividends for prior dividend periods. Unless otherwise specified in the prospectus supplement, after payment of the full amount of their liquidating distributions, the holders of preferred stock will have no right or claim to any of our remaining assets. Upon any such voluntary or involuntary liquidation, dissolution or winding up, if our available assets are insufficient to pay the amount of the liquidating distributions on all outstanding preferred stock and the corresponding amounts payable on all other classes or series of our capital stock ranking on parity with the preferred stock and all other such classes or series of shares of capital stock ranking on parity with the preferred stock will share ratably in any such distribution of assets in proportion to the full liquidating distributions distributions to which they would otherwise be entitled.

Upon any such liquidation, dissolution or winding up and if we have made liquidating distributions in full to all holders of preferred stock, we will distribute our remaining assets among the holders of any other classes or series of capital stock ranking junior to the preferred stock according to their respective rights and preferences and, in each case, according to their respective number of shares. For such purposes, our consolidation or merger with or into any other corporation, trust or entity, or the sale, lease or conveyance of all or substantially all of our property or assets will not be deemed to constitute a liquidation, dissolution or winding up of our affairs.

Redemption. If so provided in the applicable prospectus supplement, the preferred stock will be subject to mandatory redemption or redemption at our option, as a whole or in part, in each case upon the terms, at the times and at the redemption prices set forth in such prospectus supplement.

The prospectus supplement relating to a series of preferred stock that is subject to mandatory redemption will specify the number of shares of preferred stock that shall be redeemed by us in each year commencing after a date to be specified, at a redemption price per share to be specified, together with an amount equal to all accrued and unpaid dividends thereon to the date of redemption. Unless the shares have a cumulative dividend, such accrued dividends will not include any accumulation in respect of unpaid dividends for prior dividend periods. We may pay the redemption price in cash or other property, as specified in the applicable prospectus supplement. If the redemption price for preferred stock of any series is payable only from the net proceeds of the issuance of shares of our capital stock, the terms of such preferred stock may provide that, if no such shares of our capital stock shall have been issued or to the extent the net proceeds from any issuance are insufficient to pay in full the aggregate redemption price then due, such preferred stock shall automatically and mandatorily be converted into the applicable shares of our capital stock pursuant to conversion provisions specified in the applicable prospectus supplement. Notwithstanding the foregoing, we will not redeem any preferred stock of a series unless:

if that series of preferred stock has a cumulative dividend, we have declared and paid or contemporaneously declare and pay or set aside funds to pay full cumulative dividends on the preferred stock for all past dividend periods and the then-current dividend period; or

if such series of preferred stock does not have a cumulative dividend, we have declared and paid or contemporaneously declare and pay or set aside funds to pay full dividends for the then-current dividend period.

In addition, we will not acquire any preferred stock of a series unless:

if that series of preferred stock has a cumulative dividend, we have declared and paid or contemporaneously declare and pay or set aside funds to pay full cumulative dividends on all outstanding shares of such series of preferred stock for all past dividend periods and the then-current dividend period; or

if that series of preferred stock does not have a cumulative dividend, we have declared and paid or contemporaneously declare and pay or set aside funds to pay full dividends on the preferred stock of such series for the then-current dividend period.

However, at any time we may purchase or acquire preferred stock of that series (1) pursuant to a purchase or exchange offer made on the same terms to holders of all outstanding preferred stock of such series or (2) by conversion into or exchange for shares of our capital stock ranking junior to the preferred stock of such series as to dividends and upon liquidation.

If fewer than all of the outstanding shares of preferred stock of any series are to be redeemed, we will determine the number of shares that may be redeemed pro rata from the holders of record of such shares in proportion to the number of such shares held or for which redemption is requested by such holder or by any other equitable manner that we determine. Such determination will reflect adjustments to avoid redemption of fractional shares.

Unless otherwise specified in the prospectus supplement, we will mail notice of redemption at least 30 days but not more than 60 days before the redemption date to each holder of record of preferred stock to be redeemed at the address shown on our stock transfer books. Each notice shall state:

the redemption date;

the number of shares and series of preferred stock to be redeemed;

the redemption price;

the place or places where certificates for such preferred stock are to be surrendered for payment of the redemption price;

that dividends on the shares to be redeemed will cease to accrue on such redemption date;

the date on which the holder s conversion rights, if any, as to such shares shall terminate; and

the specific number of shares to be redeemed from each such holder if fewer than all the shares of any series are to be redeemed.

If notice of redemption has been given and we have set aside the funds necessary for such redemption in trust for the benefit of the holders of any shares called for redemption, then from and after the redemption date, dividends will cease to accrue on such shares, and all rights of the holders of such shares will terminate, except the right to receive the redemption price.

Voting Rights. Holders of preferred stock will not have any voting rights, except as required by law or as indicated in the applicable prospectus supplement.

Unless otherwise provided for under the terms of any series of preferred stock, no consent or vote of the holders of shares of preferred stock or any series thereof shall be required for any amendment to our certificate of incorporation that would increase the number of authorized shares of preferred stock or the number of authorized shares of any series thereof or decrease the number of authorized shares of preferred stock or the number of authorized shares of any series thereof (but not below the number of authorized shares of preferred stock or such series, as the case may be, then outstanding).

Conversion Rights. The terms and conditions, if any, upon which any series of preferred stock is convertible into our common stock will be set forth in the applicable prospectus supplement relating thereto. Such terms will include the number of shares of common stock into which the shares of preferred stock are convertible, the conversion price, rate or manner of calculation thereof, the

conversion period, provisions as to whether conversion will be at our option or at the option of the holders of the preferred stock, the events requiring an adjustment of the conversion price and provisions affecting conversion in the event of the redemption.

Transfer Agent and Registrar. The transfer agent and registrar for the preferred stock will be set forth in the applicable prospectus supplement.

Provisions of Our Certificate of Incorporation and By-laws and Delaware Law That May Have Anti-Takeover Effects

Board of Directors. Our certificate of incorporation and by-laws provide for a board of directors divided as nearly equally as possible into three classes. Each class is elected to a term expiring at the annual meeting of stockholders held in the third year following the year of such election. The number of directors comprising our board of directors is fixed from time to time by the board of directors.

Removal of Directors by Stockholders. Our by-laws provide that, subject to the rights of holders of any series of preferred stock, members of our board of directors may be removed only for cause and only by the affirmative vote of the holders of at least 75% of the votes which all the stockholders would be entitled to cast in an election of directors.

Stockholder Nomination of Directors. Our by-laws provide that a stockholder must notify us in writing of any stockholder nomination of a director not earlier than the 120th day and not later than the 90th day prior to the first anniversary of the preceding year s annual meeting; provided, that if the date of the annual meeting is advanced by more than 20 days, or delayed by more than 60 days from such anniversary date, notice by the stockholder to be timely must be so delivered not earlier than the 120th day prior to the date of such annual meeting and not later than the close of business, on the later of (1) the 90th day prior to the date of such meeting and (2) the 10th day following the day on which notice of the date of such annual meeting was mailed or public disclosure of the date of such annual meeting is first made by us.

No Action By Written Consent. Our certificate of incorporation provides that our stockholders may not act by written consent and may only act at duly called meetings of stockholders.

Super-Majority Voting. The General Corporation Law of the State of Delaware, which we refer to as the DGCL, 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 by-laws, unless a corporation s certificate of incorporation or by-laws, unless a corporation s certificate of repealed by a majority vote of our board of directors or the affirmative vote of the holders of at least 75% of the votes that all our stockholders would be entitled to cast in any annual election of directors or class of directors is required to amend or repeal or to adopt, any provisions inconsistent with any of the provisions of our certificate of incorporation described above.

Delaware Business Combination Statute. Section 203 of the DGCL is applicable to us. Section 203 of the DGCL restricts some types of transactions and business combinations between a corporation and a 15% stockholder. A 15% stockholder is generally considered by Section 203 to be a person owning 15% or more of the corporation s outstanding voting stock. Section 203 refers to a 15% stockholder as an interested stockholder. Section 203 restricts these transactions for a period of three years from the date the stockholder acquires 15% or more of our outstanding voting stock. With some exceptions, unless the transaction is approved by the board of directors and the holders of at least

two-thirds of the outstanding voting stock of the corporation, Section 203 prohibits significant business transactions such as:

a merger with, disposition of significant assets to or receipt of disproportionate financial benefits by the interested stockholder, and

any other transaction that would increase the interested stockholder s proportionate ownership of any class or series of our capital stock.

The shares held by the interested stockholder are not counted as outstanding when calculating the two-thirds of the outstanding voting stock needed for approval.

The prohibition against these transactions does not apply if:

prior to the time that any stockholder became an interested stockholder, the board of directors approved either the business combination or the transaction in which such stockholder acquired 15% or more of our outstanding voting stock, or

the interested stockholder owns at least 85% of our outstanding voting stock as a result of a transaction in which such stockholder acquired 15% or more of our outstanding voting stock. Shares held by persons who are both directors and officers or by some types of employee stock plans are not counted as outstanding when making this calculation.

Directors Liability

Our certificate of incorporation limits the personal liability of directors for breach of fiduciary duty to the maximum extent permitted by the DGCL and provides that no director will have personal liability to us or to our stockholders for monetary damages for breach of fiduciary duty as a director. However, these provisions do not eliminate or limit the liability of any of our directors:

for any breach of the director s duty of loyalty to us or our stockholders;

for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law;

for voting or assenting to unlawful payments of dividends, stock repurchases or other distributions; or

for any transaction from which the director derived an improper personal benefit. Any amendment to or repeal of these provisions will not eliminate or reduce the effect of these provisions in respect of any act, omission or claim that occurred or arose prior to such amendment or repeal. If the DGCL is amended to

provide for further limitations on the personal liability of directors of corporations, then the personal liability of our directors will be further limited to the greatest extent permitted by the DGCL.

Our certificate of incorporation provides that we must indemnify our directors and officers and we must advance expenses, including attorneys fees, to our directors and officers in connection with legal proceedings, subject to very limited exceptions.

We maintain a general liability insurance policy that covers certain liabilities of our directors and officers arising out of claims based on acts or omissions in their capacities as directors or officers.

DESCRIPTION OF WARRANTS

We may issue warrants to purchase preferred stock or common stock. We may offer warrants separately or together with one or more additional warrants, preferred stock or common stock, or any combination of those securities in the form of units, as described in the applicable prospectus supplement. If we issue warrants as part of a unit, the accompanying prospectus supplement will specify whether those warrants may be separated from the other securities in the unit prior to the expiration date of the warrants. The applicable prospectus supplement will also describe the following terms of any warrants:

the specific designation and aggregate number of, and the offering price at which we will issue, the warrants;

the currency or currency units in which the offering price, if any, and the exercise price are payable;

the date on which the right to exercise the warrants will begin and the date on which that right will expire or, if you may not continuously exercise the warrants throughout that period, the specific date or dates on which you may exercise the warrants;

whether the warrants are to be sold separately or with other securities as parts of units;

whether the warrants will be issued in definitive or global form or in any combination of these forms, although, in any case, the form of a warrant included in a unit will correspond to the form of the unit and of any security included in that unit;

any applicable material U.S. federal income tax consequences;

the identity of the warrant agent for the warrants and of any other depositaries, execution or paying agents, transfer agents, registrars or other agents;

the proposed listing, if any, of the warrants or any securities purchasable upon exercise of the warrants on any securities exchange;

the designation and terms of any equity securities purchasable upon exercise of the warrants;

if applicable, the designation and terms of the preferred stock or common stock with which the warrants are issued and, the number of warrants issued with each security;

if applicable, the date from and after which any warrants issued as part of a unit and the related preferred stock or common stock will be separately transferable;

the number of shares of preferred stock or the number of shares of common stock purchasable upon exercise of a warrant and the price at which those shares may be purchased;

if applicable, the minimum or maximum amount of the warrants that may be exercised at any one time;

information with respect to book-entry procedures, if any;

the anti-dilution provisions of, and other provisions for changes to or adjustment in the exercise price of, the warrants, if any;

any redemption or call provisions; and

any additional terms of the warrants, including terms, procedures and limitations relating to the exchange or exercise of the warrants.

DESCRIPTION OF UNITS

The following description, together with the additional information we may include in any applicable prospectus supplements, summarizes the material terms and provisions of the units that we may offer under this prospectus. While the terms summarized below will apply generally to any units that we may offer, we will describe the particular terms of any series of units in more detail in the applicable prospectus supplement. If we indicate in the prospectus supplement, the terms of any units offered under that prospectus supplement may differ from the terms described below. Specific unit 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 units consisting of common stock, preferred stock, or warrants, for the purchase of common stock and/or preferred stock in one or more series, in any combination. Each unit will be issued so that the holder of the unit is also the holder of each security included in the unit. Thus, the holder of a unit will have the rights and obligations of a holder of each included security. The unit agreement under which a unit is issued may provide that the securities included in the unit may not be held or transferred separately, at any time or at any time before a specified date.

We will describe in the applicable prospectus supplement the terms of the series of units being offered, including:

the designation and terms of the units and of the securities comprising the units, including whether and under what circumstances those securities may be held or transferred separately;

any provisions of the governing unit agreement that differ from those described below; and

any provisions for the issuance, payment, settlement, transfer or exchange of the units or of the securities comprising the units.

We may issue units in such amounts and in such numbers of distinct series as we determine.

The provisions described in this section, as well as those described under Description of Capital Stock and Description of Warrants will apply to each unit, as applicable, and to any common stock, preferred stock or warrant included in each unit, as applicable.

Unit Agent

The name and address of the unit agent for any units we offer will be set forth in the applicable prospectus supplement.

Enforceability of Rights by Holders of Units

Each unit agent will act solely as our agent under the applicable unit agreement and will not assume any obligation or relationship of agency or trust with any holder of any unit. A single bank or trust company may act as unit agent for more than one series of units. A unit agent will have no duty or responsibility in case of any default by us under the applicable unit agreement or unit, including any duty or responsibility to initiate any proceedings at law or otherwise,

or to make any demand upon us. Any holder of a unit may, without the consent of the related unit agent or the holder of any other unit, enforce by appropriate legal action its rights as holder under any security included in the unit.

FORMS OF SECURITIES

Each warrant and unit will be represented either by a certificate issued in definitive form to a particular investor or by one or more global securities representing the entire issuance of securities. Unless the applicable prospectus supplement provides otherwise, certificated securities in definitive form and global securities will be issued in registered form. Definitive securities name you or your nominee as the owner of the security, and in order to transfer or exchange these securities or to receive payments other than interest or other interim payments, you or your nominee must physically deliver the securities to the registrar, paying agent or other agent, as applicable. Global securities name a depositary or its nominee as the owner of the warrants or units represented by these global securities. The depositary maintains a computerized system that will reflect each investor s beneficial ownership of the securities through an account maintained by the investor with its broker/dealer, bank, trust company or other representative, as we explain more fully below.

Registered Global Securities

We may issue the warrants and units in the form of one or more fully registered global securities that will be deposited with a depositary or its nominee identified in the applicable prospectus supplement and registered in the name of that depositary or nominee. In those cases, one or more registered global securities will be issued in a denomination or aggregate denominations equal to the portion of the aggregate face amount of the securities to be represented by registered global securities. Unless and until it is exchanged in whole for securities in definitive registered form, a registered global security may not be transferred except as a whole by and among the depositary for the registered global security, the nominees of the depositary or any successors of the depositary or those nominees.

If not described below, any specific terms of the depositary arrangement with respect to any securities to be represented by a registered global security will be described in the prospectus supplement relating to those securities. We anticipate that the following provisions will apply to all depositary arrangements.

Ownership of beneficial interests in a registered global security will be limited to persons, called participants, that have accounts with the depositary or persons that may hold interests through participants. Upon the issuance of a registered global security, the depositary will credit, on its book-entry registration and transfer system, the participants accounts with the respective principal or face amounts of the securities beneficially owned by the participants. Any dealers, underwriters or agents participating in the distribution of the securities will designate the accounts to be credited. Ownership of beneficial interests in a registered global security will be shown on, and the transfer of ownership interests will be effected only through, records maintained by the depositary, with respect to interests of participants, and on the records of participants, with respect to interests of persons holding through participants. The laws of some states may require that some purchasers of securities take physical delivery of these securities in definitive form. These laws may impair your ability to own, transfer or pledge beneficial interests in registered global securities.

So long as the depositary, or its nominee, is the registered owner of a registered global security, that depositary or its nominee, as the case may be, will be considered the sole owner or holder of the securities represented by the registered global security for all purposes under the applicable warrant agreement or unit agreement. Except as described below, owners of beneficial interests in a registered global security will not be entitled to have the securities represented by the registered by the registered global security registered in their names, will not receive or be entitled to receive physical delivery of the securities in definitive form and will not be considered the owners or holders of the securities under the applicable warrant agreement or unit agreement. Accordingly, each person owning a beneficial interest in a

registered global security must rely on the procedures of the depositary for that registered global security and, if that person is not a participant, on the procedures of the participant through which the person owns its interest, to exercise any rights of a holder under the applicable warrant agreement or unit agreement. We understand that under existing industry practices, if we request any action of holders or if an owner of a beneficial interest in a registered global security desires to give or take any action that a holder is entitled to give or take under the applicable warrant agreement or unit agreement, the depositary for the registered global security would authorize the participants holding the relevant beneficial interests to give or take that action, and the participants would authorize beneficial owners owning through them to give or take that action or would otherwise act upon the instructions of beneficial owners holding through them.

Any payments to holders with respect to warrants or units represented by a registered global security registered in the name of a depositary or its nominee will be made to the depositary or its nominee, as the case may be, as the registered owner of the registered global security. None of us, the warrant agents, the unit agents or any other agent of ours, or agent of the warrant agents or unit agents will have any responsibility or liability for any aspect of the records relating to payments made on account of beneficial ownership interests in the registered global security or for maintaining, supervising or reviewing any records relating to those beneficial ownership interests.

We expect that the depositary for any of the securities represented by a registered global security, upon receipt of any payment to holders of principal, premium, interest or other distribution of underlying securities or other property on that registered global security, will immediately credit participants accounts in amounts proportionate to their respective beneficial interests in that registered global security as shown on the records of the depositary. We also expect that payments by participants to owners of beneficial interests in a registered global security held through participants will be governed by standing customer instructions and customary practices, as is now the case with the securities held for the accounts of customers or registered in street name, and will be the responsibility of those participants.

If the depositary for any of the securities represented by a registered global security is at any time unwilling or unable to continue as depositary or ceases to be a clearing agency registered under the Exchange Act, and a successor depositary registered as a clearing agency under the Exchange Act is not appointed by us within 90 days, we will issue securities in definitive form in exchange for the registered global security that had been held by the depositary. Any securities issued in definitive form in exchange for a registered global security will be registered in the name or names that the depositary gives to the relevant warrant agent, unit agent or other relevant agent of ours or theirs. It is expected that the depositary s instructions will be based upon directions received by the depositary from participants with respect to ownership of beneficial interests in the registered global security that had been held by the depositary.

SELLING STOCKHOLDER

This prospectus also relates to the possible sale by Johnson & Johnson Innovation-JJDC, Inc., who we refer to in this prospectus as the selling stockholder, of up to 18,367,346 shares of our common stock (plus an indeterminate number of shares of our common stock that may be issued upon stock splits, stock dividends or similar transactions in accordance with Rule 416 under the Securities Act) that were issued and outstanding prior to the original date of filing of the registration statement of which this prospectus forms a part.

The selling stockholder shall not sell any shares of our common stock pursuant to this prospectus until we have identified the shares of common stock being offered for resale by the selling stockholder in a subsequent prospectus supplement. However, except as described below under Restriction on Disposition, the selling stockholder may sell or transfer all or a portion of its shares of our common stock pursuant to any available exemption from the registration requirements of the Securities Act.

The following table sets forth the name of the selling stockholder, the number of shares and percentage of our total outstanding common stock beneficially owned by the selling stockholder as of February 15, 2017, the number of shares and percentage of our total outstanding common stock beneficially owned by the selling stockholder, and the number of shares and percentage of our total outstanding common stock beneficially owned by the selling stockholder, assuming all of the shares of common stock registered for resale by the selling stockholder hereby are sold. Beneficial ownership is determined in accordance with Section 13(d) of the Exchange Act. The number of shares in the column Number of Shares of Common Stock Being Offered represents all of the shares of common stock that the selling stockholder may offer and sell from time to time under this prospectus. The percentage of shares of common stock owned prior to and after the offering is based on 136,721, 929 shares of common stock outstanding as of February 15, 2017.

	Number of					
Name of Selling	Shares of Common Stock		Shares of Shares of Common Stock to			
	•	Beneficially Owned Prior to		Common Stocke Beneficially Owned After		
Stockholder	Offering(1)		Being Offered		Cering(1)	
	Number	Percentage		Number	Percentage	
Johnson & Johnson Innovation-JJDC, Inc.(1)	18,367,346	13.43%	18,367,346		0.0%	

(1) The selling stockholder is a wholly-owned subsidiary of Johnson & Johnson. The selling stockholder has shared voting and dispositive power with Johnson & Johnson with respect to all 18,367,346 shares being offered. Johnson & Johnson may be deemed to indirectly beneficially own the shares of common stock that are directly beneficially owned by the selling stockholder. The address for Johnson & Johnson is One Johnson & Johnson Plaza, New Brunswick, NJ 08933.

Relationship with the Selling Stockholder

Collaboration and License Agreement

In May 2015, we entered into an exclusive collaboration and license agreement with Janssen Pharmaceuticals, Inc., which we refer to as Janssen, a subsidiary of Johnson & Johnson, and its affiliate, the selling stockholder. We refer to this agreement as the Janssen Agreement. Under the Janssen Agreement we granted Janssen exclusive worldwide rights to develop and commercialize products that contain one or more of our drug candidates for the treatment of

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HCV, namely odalasvir, a second-generation NS5A inhibitor, ACH-3422, a NS5B HCV polymerase inhibitor, and sovaprevir, a NS3/4A HCV protease inhibitor. The Janssen Agreement became effective June 29, 2015 upon the early termination of applicable waiting periods under the Hart-Scott-Rodino Antitrust Improvements Act

of 1976, as amended, or the HSR Act. For more information, see the additional documents described under the heading Where You Can Find More Information in this prospectus.

Stock Purchase Agreement

On July 1, 2015, pursuant to the terms of a stock purchase agreement by and between ourselves and the selling stockholder, which we refer to as the JJDC Stock Purchase Agreement, we issued and sold 18,367,346 shares of our common stock to the selling stockholder at a price per share of \$12.25.

Investor Agreement

In connection with the closing of the transactions contemplated by the JJDC Stock Purchase Agreement, we and the selling stockholder entered into an Investor Agreement on July 1, 2015, which we refer to as the Investor Agreement. For more information on the terms of the Investor Agreement, see the additional documents described under the heading Where You Can Find More Information in this prospectus.

Restriction on Disposition

In connection with the filing of the registration statement of which this prospectus forms a part, the selling stockholder agreed, subject to limited exceptions, to restrict its dispositions of our common stock.

Except with respect to the foregoing, the selling stockholder does not have, and within the past three years has not had, any position, office or other material relationship with us.

PLAN OF DISTRIBUTION

We or the selling stockholder may sell securities:

through underwriters, brokers or dealers;

through agents;

directly to one or more purchasers in negotiated sales or competitively bid transactions;

through a block trade in which the broker or dealer engaged to handle the block trade will attempt to sell the securities as agent, but may position and resell a portion of the block as principal to facilitate the transaction; or

through a combination of any of these methods of sale.

In addition, we may issue securities as a dividend or distribution or in a subscription rights offering to our existing security holders. This prospectus may be used in connection with any offering of our securities through any of these methods or other methods described in the applicable prospectus supplement.

We or the selling stockholder may directly solicit offers to purchase securities, or agents may be designated to solicit such offers. We will, in the prospectus supplement relating to such offering, name any agent that could be viewed as an underwriter under the Securities Act, and describe any commissions that we or the selling stockholder must pay. Any such agent will be acting on a best efforts basis for the period of its appointment or, if indicated in the applicable prospectus supplement, on a firm commitment basis.

The distribution of the securities may be effected from time to time in one or more transactions:

at a fixed price, or prices, which may be changed from time to time;

at market prices prevailing at the time of sale;

at prices related to such prevailing market prices; or

at negotiated prices.

Each prospectus supplement will describe the method of distribution of the securities and any applicable restrictions.

The prospectus supplement with respect to the securities of a particular series will describe the terms of the offering of the securities, including the following:

the name of the agent or any underwriters;

the public offering or purchase price and the proceeds we or the selling stockholder will receive from the sale of the securities;

any discounts and commissions to be allowed or re-allowed or paid to the agent or underwriters;

all other items constituting underwriting compensation;

any discounts and commissions to be allowed or re-allowed or paid to dealers; and

any exchanges on which the securities will be listed.

If any underwriters or agents are utilized in the sale of the securities in respect of which this prospectus is delivered, we and/or the selling stockholder will enter into an underwriting agreement or

other agreement with them at the time of sale to them, and we and/or the selling stockholder will set forth in the prospectus supplement relating to such offering the names of the underwriters or agents and the terms of the related agreement with them.

If a dealer is utilized in the sale of the securities in respect of which this prospectus is delivered, we and/or the selling stockholder will sell such securities to the dealer, as principal. The dealer may then resell such securities to the public at varying prices to be determined by such dealer at the time of resale.

If we offer securities in a subscription rights offering to our existing security holders, we may enter into a standby underwriting agreement with dealers, acting as standby underwriters. We may pay the standby underwriters a commitment fee for the securities they commit to purchase on a standby basis. If we do not enter into a standby underwriting arrangement, we may retain a dealer-manager to manage a subscription rights offering for us.

Remarketing firms, agents, underwriters, dealers and other persons may be entitled under agreements which they may enter into with us to indemnification by us and the selling stockholder against certain civil liabilities, including liabilities under the Securities Act, and may be customers of, engage in transactions with or perform services for us in the ordinary course of business.

We may pay expenses incurred with respect to the registration of the shares of common stock owned by the selling stockholder.

If so indicated in the applicable prospectus supplement, we or the selling stockholder will authorize underwriters or other persons acting as our agents to solicit offers by certain institutions to purchase securities from us pursuant to delayed delivery contracts providing for payment and delivery on the date stated in the prospectus supplement. Each contract will be for an amount not less than, and the aggregate amount of securities sold pursuant to such contracts shall not be less nor more than, the respective amounts stated in the prospectus supplement. Institutions with whom the contracts, when authorized, may be made include commercial and savings banks, insurance companies, pension funds, investment companies, educational and charitable institutions and other institutions, but shall in all cases be subject to our approval. Delayed delivery contracts will not be subject to any conditions except that:

the purchase by an institution of the securities covered under that contract shall not at the time of delivery be prohibited under the laws of the jurisdiction to which that institution is subject; and

if the securities are also being sold to underwriters acting as principals for their own account, the underwriters shall have purchased such securities not sold for delayed delivery. The underwriters and other persons acting as our agents will not have any responsibility in respect of the validity or performance of delayed delivery contracts.

Certain agents, underwriters and dealers, and their associates and affiliates may be customers of, have borrowing relationships with, engage in other transactions with, and/or perform services, including investment banking services, for us or one or more of our respective affiliates or the selling stockholder in the ordinary course of business.

In order to facilitate the offering of the securities, any underwriters may engage in transactions that stabilize, maintain or otherwise affect the price of the securities or any other securities the prices of which may be used to determine payments on such securities. Specifically, any underwriters may overallot in connection with the offering, creating a short position for their own accounts. In addition, to cover overallotments or to stabilize the price of the securities or

of any such other securities, the underwriters may bid for, and purchase, the securities or any such other securities in the open market.

Finally, in any offering of the securities through a syndicate of underwriters, the underwriting syndicate may reclaim selling concessions allowed to an underwriter or a dealer for distributing the securities in the offering if the syndicate repurchases previously distributed securities in transactions to cover syndicate short positions, in stabilization transactions or otherwise. Any of these activities may stabilize or maintain the market price of the securities above independent market levels. Any such underwriters are not required to engage in these activities and may end any of these activities at any time.

Under Rule 15c6-1 of the Exchange Act, trades in the secondary market generally are required to settle in three business days, unless the parties to any such trade expressly agree otherwise. The applicable prospectus supplement may provide that the original issue date for your securities may be more than three scheduled business days after the trade date for your securities. Accordingly, in such a case, if you wish to trade securities on any date prior to the third business day before the original issue date for your securities, you will be required, by virtue of the fact that your securities initially are expected to settle more than three scheduled business days after the trade date for your securities, to make alternative settlement arrangements to prevent a failed settlement.

The securities may be new issues of securities and may have no established trading market. The securities may or may not be listed on a national securities exchange. We can make no assurance as to the liquidity of or the existence of trading markets for any of the securities.

LEGAL MATTERS

Unless the applicable prospectus supplement indicates otherwise, the validity of the securities in respect of which this prospectus is being delivered will be passed upon by Wilmer Cutler Pickering Hale and Dorr LLP, New York, New York. Any underwriters will also be advised about the validity of the securities and other legal matters by their own counsel, which will be named in the applicable prospectus supplement.

EXPERTS

The financial statements and management s assessment of the effectiveness of internal control over financial reporting (which is included in Management s Report on Internal Control over Financial Reporting) incorporated in this prospectus by reference to the Annual Report on Form 10-K for the year ended December 31, 2016 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.

18,367,346 Shares

Achillion Pharmaceuticals, Inc.

Common Stock

PROSPECTUS SUPPLEMENT

Goldman Sachs & Co. LLC

Leerink Partners

November 15, 2017