Ardea Biosciences, Inc./DE
Form 424B5
April 07, 2010

Table of Contents

Filed Pursuant to Rule 424(b)5
Registration Statement No. 333-159279

Prospectus Supplement
(to Prospectus dated June 5, 2009)

3,500,000 Shares

Common Stock

We are offering 3,500,000 shares of our common stock. Our common stock is quoted on The NASDAQ Global Market under the symbol RDEA . The last reported sale price of our common stock on The NASDAQ Global Market on April 5, 2010 was $21.76 per share.

Investing in our common stock involves a high degree of risk. Please read Risk Factors beginning on page S-3 of this prospectus supplement and in the documents incorporated by reference into this prospectus supplement.

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

	PER SHARE	TOTAL
Public Offering Price	$ 20.00	$ 70,000,000
Underwriting Discounts and Commissions	$ 0.85	$ 2,975,000
Proceeds to Ardea (Before Expenses)	$ 19.15	$ 67,025,000

Delivery of the shares of common stock is expected to be made on or about April 9, 2010. We have granted the underwriters an option for a period of 30 days to purchase up to an additional 525,000 shares of our common stock solely to cover overallotments. If the underwriters exercise the option in full, the total underwriting discounts and commissions payable by us will be $3,421,250 and the total proceeds to us, before expenses, will be $77,078,750.

Sole Book-Running Manager
Jefferies & Company

Joint Lead Manager
Oppenheimer & Co.

Prospectus Supplement dated April 6, 2010

Table of Contents

Prospectus Supplement

Prospectus

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 that we have authorized for use in connection with this offering. We have not, and the underwriters have not, authorized anyone to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. We are not, and the underwriters are not, making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus supplement, the accompanying prospectus, the documents incorporated by reference in this prospectus supplement and the accompanying prospectus, and in any free writing prospectus 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 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 to which we have referred

you in the sections of this prospectus supplement entitled Where You Can Find More Information and Incorporation of Certain Information by Reference.

Table of Contents

About this Prospectus Supplement

This document is in two parts. The first part is this prospectus supplement, which describes the terms of this offering of common stock and also adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference into this prospectus supplement and the accompanying prospectus. The second part, the accompanying prospectus dated June 5, 2009, including the documents incorporated by reference therein, provides more general information. Generally, when we refer to this prospectus, we are referring to both parts of this document combined. To the extent there is a conflict between the information contained in this prospectus supplement, on the one hand, and the information contained in the accompanying prospectus or in any document incorporated by reference that was filed with the Securities and Exchange Commission, or SEC, before the date of this prospectus supplement, on the other hand, you should rely on the information in this prospectus supplement. If any statement in one of these documents is inconsistent with a statement in another document having a later date for example, a document incorporated by reference in the accompanying prospectus the statement in the document having the later date modifies or supersedes the earlier statement.

This prospectus supplement and the accompanying prospectus dated June 5, 2009 are part of a registration statement on Form S-3 (File No. 333-159279) we filed with the SEC using a shelf registration process. Under this shelf registration process, we may sell from time to time in one or more offerings up to $75,000,000 of shares of our common stock described in the accompanying prospectus and up to an additional $5,500,000 of shares of our common stock registered under a related registration statement (File No. 333-165909) we filed pursuant to Rule 462(b) under the Securities Act of 1933, as amended, or the Securities Act. We collectively refer to these registration statements on Form S-3 herein as the registration statement.

All references in this prospectus supplement and the accompanying prospectus to Ardea, RDEA, the Company, we, us, our, or similar references refer to Ardea Biosciences, Inc. and its wholly-owned subsidiary, except where the context otherwise requires or as otherwise indicated.

This prospectus supplement, the accompanying prospectus, and the information incorporated herein and therein by reference, include trademarks, service marks and trade names owned by us or other companies. All trademarks, service marks and trade names included or incorporated by reference into this prospectus supplement or the accompanying prospectus are the property of their respective owners.

Table of Contents

Prospectus Supplement Summary

This summary highlights certain information about us, this offering and selected information contained elsewhere in or incorporated by reference into this prospectus supplement and the accompanying prospectus. This summary is not complete and does not contain all of the information that you should consider before deciding whether to invest in our common stock. For a more complete understanding of our company and this offering, we encourage you to read and consider carefully the more detailed information in this prospectus supplement and the accompanying prospectus, including the information incorporated by reference in this prospectus supplement and the accompanying prospectus, and the information included in any free writing prospectus that we have authorized for use in connection with this offering, including the information referred to under the heading Risk Factors in this prospectus supplement beginning on page S-3.

Company Overview

We are a biotechnology company focused on the development of small-molecule therapeutics for the treatment of gout, cancer and human immunodeficiency virus, or HIV. The current status of our development programs is as follows:

Product Candidate	Target Indication	Development Status
RDEA594	Gout	Phase 2b ongoing
RDEA684	Gout	Preclinical development ongoing
RDEA119	Cancer	Phase 1 and Phase 1/2 ongoing
RDEA806	HIV	Phase 2a completed
RDEA427	HIV	Phase 0* completed

* First-in-human micro-dose pharmacokinetic study in normal healthy volunteers.

Corporate Information

We were incorporated in the State of Delaware in January 1994. Our corporate offices are located at 4939 Directors Place, San Diego, CA 92121. Our telephone number is (858) 652-6500. Our website address is www.ardeabio.com. The information contained in, or that can be accessed through, our website is not part of, and is not incorporated into, this prospectus supplement or the accompanying prospectus and should not be considered part of this prospectus supplement or the accompanying prospectus.

Table of Contents

The Offering

Common stock offered by us	3,500,000 shares
Common stock to be outstanding immediately after this offering	22,124,236 shares

Use of Proceeds

We intend to use the net proceeds from this offering for general corporate purposes, including clinical trial expenses, research and development expenses and general and administrative expenses, including working capital. We may also use a portion of the net proceeds to in-license, invest in or acquire businesses or technologies that we believe are complementary to our own, although we have no current plans, commitments or agreements to do so as of the date of this prospectus supplement. Pending these uses, we intend to invest the net proceeds in investment-grade, interest-bearing securities. See Use of Proceeds on page S-5 of this prospectus supplement.

NASDAQ Global Market Listing

Our common stock is listed on The NASDAQ Global Market under the symbol RDEA .

Risk Factors

Investing in our common stock involves a high degree of risk. See Risk Factors on page S-3 of this prospectus supplement.

Outstanding Shares

The number of shares of our common stock to be outstanding immediately after this offering is based on 18,624,236 shares outstanding as of March 31, 2010, and excludes as of such date:

- 3,386,788 shares of common stock issuable upon the exercise of outstanding options, at a weighted average exercise price of approximately $11.18 per share;
- 719,338 shares of common stock issuable upon the exercise of outstanding warrants, at a weighted average exercise price of approximately $11.01 per share; and
- 2,097,370 shares of common stock available for future grant under our 2002 Non-Officer Equity Incentive Plan, as amended, 2000 Employee Stock Purchase Plan, and Amended and Restated 2004 Stock Incentive Plan.

Except as otherwise indicated, all information in the prospectus supplement assumes no exercise by the underwriters of their overallotment option.

Table of Contents

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 section captioned Risk Factors contained in our Annual Report on Form 10-K for the year ended December 31, 2009, as filed with the SEC on March 12, 2010, which are incorporated by reference in this prospectus supplement and the accompanying prospectus in their entirety, together with other information in this prospectus supplement, the accompanying prospectus, the information and documents incorporated by reference, and in any free writing prospectus that we have authorized for use in connection with this offering. If any of these risks actually occurs, our business, financial condition, results of operations or 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

Management will have broad discretion as to the use of the proceeds from this offering, and we may not use the proceeds effectively.

Our management will have broad discretion in the application of the net proceeds from this offering and could spend the proceeds in ways that do not improve our results of operations or enhance the value of our common stock. Our failure to apply these funds effectively could have a material adverse effect on our business or the development of our product candidates and cause the price of our common stock to decline.

You will experience immediate and substantial dilution in the net tangible book value per share of the common stock you purchase.

Since the price per share of our common stock being offered is substantially higher than the net tangible book value per share of our common stock, you will suffer substantial dilution in the net tangible book value of the common stock you purchase in this offering. Based on the public offering price of $20.00 per share, if you purchase shares of common stock in this offering, you will suffer immediate and substantial dilution of $15.85 per share in the net tangible book value of the common stock. See the section entitled Dilution in this prospectus supplement for a more detailed discussion of the dilution you will incur if you purchase common stock in this offering.

You may experience future dilution as a result of future equity offerings or other equity issuances.

In order to raise additional capital, we may in the future offer additional shares of our common stock or other securities convertible into or exchangeable for our common stock. We cannot assure you that we will be able to sell shares or other securities in any other offering at a price per share that is equal to or greater than the price per share paid by investors in this offering, and investors purchasing shares or other securities in the future could have rights superior to existing stockholders. The price per share at which we sell additional shares of our common stock or other securities convertible into or exchangeable for our common stock in future transactions may be higher or lower than the price per share in this offering. As of March 31, 2010, 2,097,370 shares of common stock were reserved and available for future grant under our 2002 Non-Officer Equity Incentive Plan, as amended, 2000 Employee Stock Purchase Plan, and Amended and Restated 2004 Stock Incentive Plan. Also as of such date, options to purchase 3,386,788 shares of our common stock and warrants to purchase 719,338 shares of our common stock were outstanding . You will incur dilution upon the grant of any shares pursuant to any of such plans, upon vesting of any stock awards under any of such plans, or upon exercise of any such outstanding options or warrants.

Table of Contents

Special Note Regarding Forward-Looking Statements

This prospectus supplement, the accompanying prospectus, the documents we have filed with the SEC that are incorporated by reference and any free writing prospectus that we have authorized for use in connection with this offering contain forward-looking statements within the meaning of Section 27A of the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. These statements relate to future events or to our future operating or financial performance and involve known and unknown risks, uncertainties and other factors which may cause our actual results, performance or achievements to be materially different from any future results, performances or achievements expressed or implied by the forward-looking statements. Forward-looking statements may include, but are not limited to, statements about:

- the safety and efficacy of our product candidates;
- the progress, timing and results of clinical trials and research and development efforts involving our product candidates;
- the submission of applications for and receipt of regulatory clearances and approvals;
- our expectations with regard to our intellectual property position and our ability to successfully protect our intellectual property;
- our plans to conduct future clinical trials or research and development efforts;
- estimates of the potential markets for our product candidates;
- our operating and growth strategies, industry, planned products, and our expected future revenues, operations and expenditures and projected cash needs;
- our expectations about partnering, acquisitions, licensing and marketing;
- the use of proceeds from this offering; and
- economic conditions, both generally and those specifically related to the biotechnology industry.

In some cases, you can identify forward-looking statements by terms such as may, will, should, could, would, plans, anticipates, believes, estimates, projects, predicts, potential and similar expressions intended to iden forward-looking statements. These statements reflect our current views with respect to future events and are based on assumptions and subject to risks and uncertainties. Given these uncertainties, you should not place undue reliance on these forward-looking statements. We discuss many of these risks in greater detail under the heading Risk Factors beginning on page S-3 of this prospectus supplement and in our SEC filings. Also, these forward-looking statements represent our estimates and assumptions only as of the date of the document containing the applicable statement.

You should read this prospectus supplement, the accompanying prospectus, the documents we have filed with the SEC that are incorporated by reference and any free writing prospectus that we have authorized for use in connection with this offering completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of the forward-looking statements in the foregoing documents by these cautionary statements.

You should rely only on the information contained, or incorporated by reference, in this prospectus supplement, the accompanying prospectus and any free writing prospectus that we have authorized for use in connection with this offering. We and the underwriters for this offering have not authorized anyone to provide you with different information. The common stock offered under this prospectus is not being offered in any state where the offer is not permitted. You should not assume that the information contained in this prospectus supplement or the accompanying prospectus is accurate as of any date other than the date on the front of this prospectus supplement or the accompanying prospectus, as applicable, or that any information incorporated by reference in this prospectus supplement or the accompanying prospectus is accurate as of any date other than the date of the document so incorporated by reference. Unless required by law, we undertake no obligation to update or revise any forward-looking statements to reflect new information or future events or developments. Thus, you should not assume that our silence over time means that actual events are bearing out as expressed or implied in such forward-looking statements.

Table of Contents

Use of Proceeds

We estimate that the net proceeds from the sale of the 3,500,000 shares of common stock that we are offering will be approximately $66.8 million, or approximately $76.9 million if the underwriters exercise in full their option to purchase 525,000 additional shares of common stock, based on the public offering price of $20.00 per share and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us.

We intend to use the net proceeds from this offering for general corporate purposes, including clinical trial expenses, research and development expenses and general and administrative expenses, including working capital. We may also use a portion of the net proceeds to in-license, invest in or acquire businesses or technologies that we believe are complementary to our own, although we have no current plans, commitments or agreements to do so as of the date of this prospectus supplement.

The amounts and timing of these expenditures will depend on a number of factors, such as the timing, scope, progress and results of our research and development efforts, the timing and progress of any partnering efforts, and the competitive environment for our product candidates. As of the date of this prospectus supplement, we cannot specify with certainty all of the particular uses of the proceeds from this offering. Accordingly, we will retain broad discretion over the use of such proceeds. Pending the use of the net proceeds from this offering as described above, we intend to invest the net proceeds in interest-bearing, investment-grade securities.

Table of Contents

Dilution

Our net tangible book value as of December 31, 2009 was approximately $24.5 million, or $1.32 per share. Net tangible book value per share is determined by dividing our total tangible assets, less total liabilities, by the number of shares of our common stock outstanding as of December 31, 2009. Dilution in net tangible book value per share represents the difference between the amount per share paid by purchasers of shares of common stock in this offering and the net tangible book value per share of our common stock immediately after this offering.

After giving effect to the sale of 3,500,000 shares of our common stock in this offering at the public offering price of $20.00 per share and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, our as adjusted net tangible book value as of December 31, 2009 would have been approximately $91.3 million, or $4.15 per share. This represents an immediate increase in net tangible book value of $2.83 per share to existing stockholders and immediate dilution in net tangible book value of $15.85 per share to new investors purchasing our common stock in this offering. The following table illustrates this dilution on a per share basis:

Public offering price per share		$ 20.00
Net tangible book value per share as of December 31, 2009	$ 1.32	
Increase per share attributable to new investors	$ 2.83	
As adjusted net tangible book value per share after this offering		$ 4.15
Dilution per share to new investors		$ 15.85

If the underwriters exercise in full their option to purchase 525,000 additional shares of common stock at the public offering price of $20.00 per share, the as adjusted net tangible book value after this offering would be $4.50 per share, representing an increase in net tangible book value of $3.18 per share to existing stockholders and immediate dilution in net tangible book value of $15.50 per share to new investors purchasing our common stock in this offering.

The above discussion and table are based on 18,504,898 shares outstanding as of December 31, 2009, and exclude as of such date:

- 3,391,795 shares of common stock issuable upon the exercise of outstanding options, at a weighted average exercise price of approximately $10.84 per share;
- 719,338 shares of common stock issuable upon the exercise of outstanding warrants, at a weighted average exercise price of approximately $11.01 per share; and
- 1,286,456 shares of common stock available for future grant under our 2002 Non-Officer Equity Incentive Plan, as amended, 2000 Employee Stock Purchase Plan, and Amended and Restated 2004 Stock Incentive Plan.

To the extent that outstanding options or warrants are exercised, investors purchasing our common stock in this offering will experience further dilution. In addition, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or convertible debt securities, the

issuance of these securities could result in further dilution to our stockholders.

Table of Contents

Underwriting

Under the terms and subject to the conditions contained in an underwriting agreement dated April 6, 2010 by and among us and the underwriters named below, for whom Jefferies & Company, Inc. is acting as representative, the underwriters have agreed to purchase, and we have agreed to sell to them, the number of shares of common stock indicated in the table below:

Name	Number of Shares
Jefferies & Company, Inc.	2,450,000
Oppenheimer & Co. Inc.	1,050,000
Total	3,500,000

The underwriters are offering the common stock subject to their acceptance of the shares from us and subject to prior sale. The underwriting agreement provides that the obligations of the underwriters to pay for and accept delivery of the common stock offered by this prospectus supplement are subject to the approval of certain legal matters by their counsel and to certain other conditions. The underwriting agreement provides that the underwriters are obligated to take and pay for all of the common stock if any such shares are purchased, other than those shares covered by the overallotment option described below.

Commissions and Expenses

The underwriters have advised us that they propose to offer the shares to the public at the public offering price set forth on the cover page of this prospectus supplement and to certain dealers at that price less a concession not in excess of $0.51 per share. After the offering, the public offering price and concession to dealers may be reduced by the underwriters. No such reduction shall change the amount of proceeds to be received by us as set forth on the cover page of this prospectus supplement. The shares are offered by the underwriters as stated herein, subject to receipt and acceptance by them and subject to their right to reject any order in whole or in part.

The following table shows the public offering price, the underwriting discounts and commissions payable to the underwriters by us and the proceeds, before expenses, to us.

	Per Share	Total Without Exercise of Overallotment Option	Total With Full Exercise of Overallotment Option
Public offering price	$ 20.00	$ 70,000,000	$ 80,500,000
Underwriting discounts and commissions	$ 0.85	$ 2,975,000	$ 3,421,250
Proceeds to Ardea (before expenses)	$ 19.15	$ 67,025,000	$ 77,078,750

We estimate expenses payable by us in connection with the offering of common stock, other than the underwriting discounts and commissions referred to above, will be approximately $220,000.

Option to Purchase Additional Shares

We have granted to the underwriters an option, exercisable for 30 days from the date of this prospectus supplement, to purchase up to an aggregate of 525,000 additional shares at the same price they are paying for the shares shown in the table above. The underwriters may exercise this option at any time and from time to time, in whole or in part, within 30 days after the date of this prospectus supplement. If the underwriters exercise the option in full, the total underwriting discounts and commissions payable by us will be $3,421,250 and the total proceeds to us, before expenses, will be $77,078,750.

Table of Contents

Indemnification

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

Lock-up Agreements

Our executive officers and directors have agreed, subject to specified exceptions, not to directly or indirectly sell, offer, contract or grant any option to sell (including without limitation any short sale), pledge, transfer, establish an open put equivalent position within the meaning of Rule 16a-1(h) under the Exchange Act or otherwise dispose of any shares of our common stock, options or warrants to acquire shares of our common stock, or securities exchangeable or exercisable for or convertible into shares of our common stock currently or hereafter owned either of record or beneficially (as defined in Rule 13d-3 under the Exchange Act) by such person, or publicly announce an intention to do any of the foregoing. We have also agreed, subject to specified exceptions, not to directly or indirectly sell (including, without limitation, any short sale), offer, contract or grant any option to sell, pledge, transfer or establish an open put equivalent position within the meaning of Rule 16a-1(h) under the Exchange Act, or otherwise dispose of or transfer, or announce the offering of, or file any registration statement under the Securities Act in respect of, any shares of our common stock, options, rights or warrants to acquire shares of our common stock, or securities exchangeable or exercisable for or convertible into shares of common stock, or publicly announce the intention to do any of the foregoing.

These restrictions terminate after the close of trading of the shares on and including the 90th day after the date of this prospectus supplement. Jefferies & Company, Inc. may, in its sole discretion and at any time or from time to time before the termination of the 90-day period, without notice, release all or any portion of the securities subject to lock-up agreements. However, subject to specified exceptions, if (i) during the last 17 days of the 90-day period, the Company issues an earnings release or material news or a material event relating to the Company occurs or (ii) prior to the expiration of the 90-day period, the Company announces that it will release earnings results during the 16-day period beginning on the last day of the 90-day period, then in each case the 90-day period will be extended until the expiration of the 18-day period beginning on the date of the issuance of the earnings release or the occurrence of the material news or material event, as applicable, unless Jefferies & Company, Inc. waives, in writing, such extension.

Electronic Distribution

This prospectus supplement and the accompanying prospectus in electronic format may be made available on websites or through other online services maintained by the underwriters of the offering, or by their affiliates. Other than the prospectus in electronic format, the information on the underwriters websites and any information contained in any other website maintained by the underwriters is not part of the prospectus or the registration statement of which this prospectus supplement forms a part, has not been approved and/or endorsed by us or the underwriters in their capacity as underwriters and should not be relied upon by investors.

Price Stabilization, Short Positions and Penalty Bids

Until the distribution of the shares of common stock is completed, SEC rules may limit the underwriters from bidding for and purchasing shares of our common stock.

In connection with this offering, the underwriters may engage in transactions that stabilize, maintain or make short sales of our common stock and may purchase our common stock on the open market 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 this offering. The underwriters may close out any short position by purchasing shares in the open market or by exercising their overallotment option.

A short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the shares in the open market after pricing that could adversely affect investors who purchase in this offering. A stabilizing bid is a bid for or the purchase of common stock on behalf of the underwriters in the open market prior to the completion of this offering for the purpose of fixing or maintaining the price of the shares of common stock. A syndicate covering transaction is the bid for or purchase of common stock on behalf of the underwriters to reduce a short position incurred by the underwriters in connection with the offering.

Table of Contents

Similar to other purchase transactions, the underwriters purchases to cover the syndicate short sales may have the effect of raising or maintaining the market price of our shares or preventing or retarding a decline in the market price of our shares. As a result, the price of our shares may be higher than the price that might otherwise exist in the open market.

In connection with this offering, the underwriters may also engage in passive market making transactions in our common stock on The NASDAQ Global Market in accordance with Rule 103 of Regulation M during a period before the commencement of offers or sales of shares of our common stock in this offering and extending through the completion of distribution. A passive market maker must display its bid at a price not in excess of the highest independent bid of that security. However, if all independent bids are lowered below the passive market maker s bid, that bid must then be lowered when specified purchase limits are exceeded.

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

Affiliations

In the future, the underwriters and their affiliates may provide various investment banking, commercial banking, financial advisory and other services to us and our affiliates for which services they have received, and may in the future receive, customary fees. In the course of their businesses, the underwriters and their affiliates may actively trade our securities or loans for their own accounts or for the accounts of customers, and, accordingly, the underwriters and their affiliates may at any time hold long or short positions in such securities or loans.

Table of Contents

Notice to Investors

European Economic Area

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (as defined below) (each, a Relevant Member State), with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State, or the Relevant Implementation Date, an offer of our common stock to the public may not be made in that Relevant Member State prior to the publication of a prospectus in relation to our common stock which has been approved by the competent authority in that Relevant Member State or, where appropriate, approved in another Relevant Member State and notified to the competent authority in that Relevant Member State, all in accordance with the Prospectus Directive, except that an offer to the public in that Relevant Member State of any shares of our common stock may be made at any time under the following exemptions under the Prospectus Directive if they have been implemented in the Relevant Member State:

(a) to legal entities which are authorized or regulated to operate in the financial markets or, if not so authorized or regulated, whose corporate purpose is solely to invest in securities;

(b) to any legal entity which has two or more of (1) an average of at least 250 employees during the last financial year; (2) a total balance sheet of more than 43,000,000 and (3) an annual net turnover of more than 50,000,000, as shown in its last annual or consolidated accounts;

(c) to fewer than 100 natural or legal persons per Relevant Member State (other than qualified investors as defined in the Prospectus Directive); or

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

provided that no such offer of our common stock shall result in a requirement for the publication by us or any underwriter of a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an offer of our common stock to the public in relation to any shares of our common stock 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 common stock to be offered so as to enable an investor to decide to purchase or subscribe our common stock, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State and the expression Prospectus Directive means Directive 2003/71/EC and includes any relevant implementing measure in each Relevant Member State.

United Kingdom

Shares of our common stock may not be offered or sold and will not be offered or sold to any persons in the United Kingdom other than to persons whose ordinary activities involve them in acquiring, holding, managing or disposing of investments (as principal or as agent) for the purposes of their businesses or otherwise in circumstances which have not resulted or will not result in an offer to the public in the United Kingdom within the meaning of the Financial Services and Markets Act 2000, or the FSMA.

In addition, any invitation or inducement to engage in investment activity (within the meaning of section 21 of the FSMA) in connection with the issue or sale of shares of our common stock may only be communicated or caused to be communicated in circumstances in which Section 21(1) of the FSMA does not apply to us. Without limitation to

the other restrictions referred to herein, this prospectus supplement is directed only at (1) persons outside the United Kingdom or (2) persons who:

(a) are qualified investors as defined in section 86(7) of FSMA, being persons falling within the meaning of article 2.1(e)(i), (ii) or (iii) of the Prospectus Directive; and

(b) are either persons who fall within article 19(1) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, as amended, or Order, or are persons who fall within article 49(2)(a) to (d) (high net worth companies, unincorporated associations, etc.) of the Order; or

(c) to whom it may otherwise lawfully be communicated in circumstances in which Section 21(1) of the FSMA does not apply.

Without limitation to the other restrictions referred to herein, any investment or investment activity to which this offering circular relates is available only to, and will be engaged in only with, such persons, and persons within the

Table of Contents

United Kingdom who receive this communication (other than persons who fall within (2) above) should not rely or act upon this communication.

Germany

Any offer or solicitation of securities within Germany must be in full compliance with the German Securities Prospectus Act (Wertpapierprospektgesetz WpPG). The offer and solicitation of securities to the public in Germany requires the publication of a prospectus that has to be filed with and approved by the German Federal Financial Services Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht BaFin). This prospectus supplement has not been and will not be submitted for filing and approval to the BaFin and, consequently, will not be published. Therefore, this prospectus supplement does not constitute a public offer under the German Securities Prospectus Act (Wertpapierprospektgesetz). This prospectus supplement and any other document relating to our common stock, as well as any information contained therein, must therefore not be supplied to the public in Germany or used in connection with any offer for subscription of our common stock to the public in Germany, any public marketing of our common stock or any public solicitation for offers to subscribe for or otherwise acquire our common stock. This prospectus supplement and other offering materials relating to the offer of our common stock are strictly confidential and may not be distributed to any person or entity other than the designated recipients hereof.

France

This prospectus has not been prepared in the context of a public offering of financial securities in France within the meaning of Article L.411-1 of the French Code Monétaire et Financier and Title I of Book II of the Règlement Général of the Autorité des marchés financiers (the AMF) and therefore has not been and will not be filed with the AMF for prior approval or submitted for clearance to the AMF. Consequently, the shares of our common stock may not be, directly or indirectly, offered or sold to the public in France and offers and sales of the shares of our common stock may only be made in France to qualified investors (investisseurs qualifiés) acting for their own, as defined in and in accordance with Articles L.411-2 and D.411-1 to D.411-4, D.734-1, D.744-1, D.754-1 and D.764-1 of the French Code Monétaire et Financier. Neither this prospectus nor any other offering material may be released, issued or distributed to the public in France or used in connection with any offer for subscription on sale of the shares of our common stock to the public in France. The subsequent direct or indirect retransfer of the shares of our common stock to the public in France may only be made in compliance with Articles L.411-1, L.411-2, L.412-1 and L.621-8 through L.621-8-3 of the French Code Monétaire et Financier.

Sweden

This is not a prospectus under, and has not been prepared in accordance with the prospectus requirements provided for in, the Swedish Financial Instruments Trading Act [lagen (1991:980) om handel med finasiella instrument] nor any other Swedish enactment. Neither the Swedish Financial Supervisory Authority nor any other Swedish public body has examined, approved, or registered this document.

Table of Contents

Legal Matters

The validity of the common stock offered by this prospectus supplement and the accompanying prospectus will be passed upon for us by Cooley Godward Kronish LLP, San Diego, California. Latham & Watkins LLP, San Diego, California, is counsel for the underwriters in connection with this offering.

Experts

Stonefield Josephson, Inc., independent registered public accounting firm, has audited our consolidated financial statements as of and for the year ended December 31, 2009 and the effectiveness of our internal control over financial reporting as of December 31, 2009, as set forth in their reports, each of which are included in our Annual Report on Form 10-K for the year ended December 31, 2009 as filed with the SEC on March 12, 2010, and are incorporated by reference in this prospectus supplement and elsewhere in the registration statement. These financial statements are incorporated by reference in reliance on Stonefield Josephson, Inc. s reports, given on their authority as experts in accounting and auditing.

Where You Can Find More Information

This prospectus supplement and the accompanying prospectus are part of the registration statement on Form S-3 we filed with the SEC under the Securities Act and do not contain all the information set forth in the registration statement. Whenever a reference is made in this prospectus supplement or the accompanying prospectus to any of our contracts, agreements or other documents, the reference may not be complete and you should refer to the exhibits that are a part of the registration statement or the exhibits to the reports or other documents incorporated by reference in this prospectus supplement and the accompanying prospectus for a copy of such contract, agreement or other document. Because we are subject to the information and reporting requirements of the Exchange Act 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. You may also read and copy any document we file at the SEC s Public Reference Room at 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.

Incorporation of Certain Information by Reference

The SEC allows us to incorporate by reference information from other documents that we file with them, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus supplement and the accompanying prospectus. Information contained in this prospectus supplement and the accompanying prospectus and information that we file with the SEC in the future and incorporate by reference in this prospectus supplement and the accompanying prospectus will automatically update and supersede this information. We incorporate by reference the documents listed below and any future filings (other than Current Reports on Form 8-K furnished under Item 2.02 or Item 7.01 and exhibits filed on such form that are related to such items) we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of the prospectus supplement and until the termination of this offering:

- our Annual Report on Form 10-K for the year ended December 31, 2009 filed with the SEC on March 12, 2010;
- the information specifically incorporated by reference into our Annual Report on Form 10-K for the year ended December 31, 2008 from our definitive proxy statement on Schedule 14A filed with the SEC on April 16, 2009;

our Current Reports on Form 8-K filed with the SEC on December 22, 2009, February 9, 2010, March 8, 2010 and April 5, 2010; and

the description of our common stock set forth in our registration statement on Form 8-A12B (File No. 001-33734), filed under the Exchange Act on October 9, 2007, and any amendment or report filed for the purpose of updating that description.

Table of Contents

You can request a copy of these filings, at no cost, by writing or telephoning us at the following address or telephone number:

Ardea Biosciences, Inc.
4939 Directors Place
San Diego, CA 92121
Attn: Investor Relations
(858) 652-6500

Table of Contents

PROSPECTUS

$75,000,000

Ardea Biosciences, Inc.

Common Stock

Our common stock is listed on The NASDAQ Global Market under the symbol RDEA. On June 4, 2009, the last reported sale price of our common stock on The NASDAQ Global Market was $15.55 per share.

From time to time, we may sell shares of our common stock in one or more offerings in amounts, at prices and on the terms that we will determine at the time of the offering, with an aggregate initial offering price of up to $75 million. Each time we offer shares, we will provide you with a supplement to this prospectus. You should read this prospectus, the information incorporated by reference in this prospectus and any prospectus supplement carefully before you invest.

Investing in our common stock involves a high degree of risk. See Risk Factors on page 4 of this prospectus and as updated in our future filings made with the Securities and Exchange Commission, or the SEC, which are incorporated by reference in this prospectus.

This prospectus may not be used to offer or sell any securities unless accompanied by a prospectus supplement.

The securities may be sold by us to or through underwriters or dealers, directly to purchasers or through agents designated from time to time. For additional information on the methods of sale, you should refer to the section entitled Plan of Distribution in this prospectus. If any underwriters are involved in the sale of any securities with respect to which this prospectus is being delivered, the names of such underwriters and any applicable discounts or commissions and over-allotment options will be set forth in a prospectus supplement. The price to the public of such securities and the net proceeds we expect to receive from such sale will also be set forth in a prospectus supplement.

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

The date of this prospectus is June 5, 2009.

Table of Contents

You should rely only on the information contained in or incorporated by reference into this prospectus or any applicable prospectus supplement. We have not authorized anyone to provide you with different information. We are not making an offer to sell or seeking an offer to buy shares of our common stock under this prospectus or any applicable prospectus supplement in any jurisdiction where the offer or sale is not permitted. The information contained in this prospectus, any applicable prospectus supplement and the documents incorporated by reference herein and therein are accurate only as of their respective dates, regardless of the time of delivery of this prospectus or any sale of a security.

About This Prospectus

This prospectus is part of a registration statement that we filed with the SEC using a shelf registration process. Under this shelf registration statement, we may sell common stock in one or more offerings up to a total dollar amount of $75 million. Each time we sell any of our common stock under this prospectus, we will provide a prospectus supplement that will contain more specific information about the terms of that offering. We may also add, update or change in a prospectus supplement any of the information contained in this prospectus or in documents we have incorporated by reference into this prospectus. This prospectus, together with any applicable prospectus supplement and the documents incorporated by reference into this prospectus, include all material information relating to this offering. You should carefully read both this prospectus and any applicable prospectus supplement together with the additional information described under Where You Can Find More Information before buying common stock in this offering.

Table of Contents

Summary

To understand this offering fully and for a more complete description of the legal terms of this offering as well as our company and the common stock being sold in this offering, you should read carefully the entire prospectus, the prospectus supplement and the other documents to which we may refer you, including Risk Factors and our consolidated financial statements and notes to those statements incorporated by reference in this prospectus. Reference to we, us, our, our company, the Company, and RDEA refers to Ardea Biosciences, Inc. and its subsidiary, unless the context requires otherwise.

Ardea Biosciences, Inc.

Overview and Business Strategy

Ardea Biosciences, Inc., of San Diego, California, is a biotechnology company focused on the discovery and development of small-molecule therapeutics for the treatment of gout, human immunodeficiency virus (HIV), cancer and inflammatory diseases. We are currently pursuing multiple development programs, including the following:

Product Portfolio

Product Candidate	Target Indication	Development Status
RDEA594	Gout	Phase 2 initiating
RDEA806	HIV	Phase 2a completed
RDEA427	HIV	Phase 0* completed
RDEA119	Cancer	Phase 1 and Phase 1/2 ongoing
RDEA119	Inflammation	Phase 1 completed
RDEA436	Inflammation	Phase 0* completed

* First-in-human micro-dose pharmacokinetic study in normal healthy volunteers.

GOUT

RDEA594

RDEA594 is an inhibitor of URAT1, a transporter in the kidney that regulates uric acid excretion from the body. RDEA594 was well tolerated in Phase 1 studies in normal healthy volunteers and demonstrated significant dose-related decreases in serum uric acid of up to 30% over the first 24 hours after administration of single-ascending doses and up to 45% after 10 days of administration of multiple doses. We plan to complete a number of additional studies by the end of 2009, including a Phase 2 dose-ranging study of RDEA594 in gout patients. The uric acid-lowering activity of RDEA594, when administered as its prodrug, RDEA806, has also been demonstrated in a recently completed Phase 2a proof-of-concept study of RDEA806 in gout patients. All of our future studies in gout will be conducted directly with RDEA594.

HIV

RDEA806

RDEA806 is our lead non-nucleoside reverse transcriptase inhibitor, or NNRTI, for the treatment of HIV. *In vitro* preclinical tests have shown RDEA806 to be a potent inhibitor of a wide range of HIV viral isolates, including isolates that are resistant to efavirenz (SUSTIVA®/Stocrin® from Bristol-Myers Squibb Company and Merck & Co., Inc.), the most widely prescribed NNRTI, in addition to other currently available NNRTIs. *In vitro* preclinical tests have also shown RDEA806 to have a high genetic barrier to resistance. *In vivo* preclinical tests suggest that RDEA806 does not pose a risk of reproductive toxicity. Based on both preclinical and clinical data, we anticipate that RDEA806 could be amenable to a once-daily oral dosing regimen, may have limited pharmacokinetic interactions with other drugs and may be readily co-formulated in a single pill with other HIV antiviral drugs, such as Truvada® (emtricitabine and tenofovir from Gilead Sciences, Inc.), which is important for patient compliance and efficacy.

RDEA806 has successfully completed Phase 1 and Phase 2a studies and has been evaluated in over 250 subjects. Results from a Phase 2a monotherapy proof-of-concept study of RDEA806 demonstrated placebo-adjusted plasma viral load reductions of up to 2.0 log10 on day 8 with once-daily dosing of RDEA806. In addition, all dosing regimens tested were well tolerated. We have continued preparing RDEA806 for further clinical development by

Table of Contents

obtaining additional regulatory approvals to conduct an international Phase 2b HIV trial and by completing a number of important preparatory safety and supportive toxicology studies, including a Thorough QT study. Results from the Thorough QT study demonstrated that QTc intervals were not increased by any dose of RDEA806 tested. In addition, the study provided information on the lack of pharmacokinetic differences between Caucasians and African-Americans. These results provide further support for RDEA806 s cardiac safety profile, as well as its potential to improve current standard-of-care therapy by decreasing the documented increased side effects of efavirenz in African-Americans believed to result from ethnicity-based differences in metabolism. We anticipate that the timing of future studies of RDEA806 will be determined in part by the results of our partnering efforts.

RDEA427

The lead compound in our next generation NNRTI program, RDEA427, is from a chemical class that is distinct from the RDEA806 chemical class. Based on early preclinical data, we believe that RDEA427 may share certain of the positive attributes of RDEA806, but may also have even greater activity against a wide range of drug-resistant viral isolates. We have evaluated RDEA427 in a human micro-dose pharmacokinetic study. We anticipate that the timing of future studies of RDEA427 will be determined in part by the results of our partnering efforts.

CANCER

RDEA119

RDEA119, our lead mitogen-activated ERK kinase, or MEK, inhibitor for the treatment of cancer, is a potent and selective inhibitor of MEK, which is believed to play an important role in cancer cell proliferation, apoptosis and metastasis. *In vivo* preclinical tests have shown RDEA119 to have potent anti-tumor activity.

Data from an ongoing Phase 1 study of RDEA119 in advanced cancer patients suggest that RDEA119 has a pharmacokinetic profile allowing for convenient once-daily oral dosing. In addition, preclinical *in vitro* and *in vivo* studies of RDEA119 have demonstrated synergistic activity across multiple tumor types when RDEA119 is used in combination with other anti-cancer agents, including sorafenib (Nexavar® from Bayer HealthCare AG (Bayer) and Onyx Pharmaceuticals, Inc.). We are currently conducting a Phase 1/2 study of RDEA119 in combination with sorafenib in advanced cancer patients to evaluate the safety, tolerability, pharmacokinetics and anti-tumor activity of this combination therapy.

Under our Development and License Agreement (the License Agreement) with Bayer, we are responsible for the completion of the Phase 1 and Phase 1/2 studies currently being conducted for RDEA119. Thereafter, Bayer will be responsible for the further development and commercialization of RDEA119 and any of our other MEK inhibitors.

INFLAMMATION

RDEA119

In vivo preclinical tests have also shown RDEA119 to significantly inhibit production of inflammatory cytokines. Results from a completed Phase 1 study in normal healthy volunteers demonstrated that RDEA119 was well tolerated with a pharmacokinetic profile allowing for convenient once-daily oral dosing. The timing of future studies of RDEA119 in inflammatory diseases, if any, will be determined by Bayer pursuant to the License Agreement.

RDEA436

The lead compound in our next generation MEK inhibitor program, RDEA436, is from a chemical class that is distinct from the RDEA119 chemical class. Based on early preclinical data, we believe that RDEA436 may potentially share certain of the positive attributes of RDEA119, and may have even greater potency than RDEA119. We have evaluated RDEA436 in a human micro-dose pharmacokinetic study. We received regulatory approval in December 2008 to initiate a Phase 1 study of RDEA436 evaluating safety, pharmacokinetics and inflammatory disease biomarkers in normal healthy volunteers. The timing of future studies of RDEA436 in inflammatory diseases, if any, will be determined by Bayer pursuant to the License Agreement.

Table of Contents

Market Opportunity

We believe that there is a significant market opportunity for our products, should they be successfully developed, approved and commercialized.

We believe that there is a significant need for new products for the treatment and prevention of gout, a painful and debilitating disease caused by abnormally elevated levels of uric acid. There has been only one new drug approved in the United States for the treatment of gout in the last 40 years. According to the National Arthritis Data Workgroup, an estimated 6.1 million adults in the United States in 2005 had experienced at least one episode of gout. The incidence and severity of gout is increasing in the United States. According to the Annals of Rheumatic Diseases there was a 288% increase in gout-related hospitalizations from 1988-2005 and over $11.2 billion in gout-related hospital costs were incurred in 2005 in the United States. In addition, according to a 2008 Nerac Inc. survey, approximately 5.0 million patients in the European Union suffer from gout. Many chronic gout sufferers are unable to achieve target reductions in uric acid with current treatments. Approximately 80% to 90% of gout patients are under excretors of uric acid. Scientists have recently discovered defects in multiple transporters in the kidney that play important roles in uric acid transport and are genetically linked to a higher risk of gout. URAT1 has been identified as the most important transporter for uric acid. We are developing products for the treatment of hyperuricemia and gout that inhibit URAT1, thereby increasing the excretion of uric acid and lowering serum uric acid levels. In addition, we believe there may be opportunities to develop uric acid-lowering agents to treat diseases other than gout. Evidence suggests that the chronic elevation of uric acid associated with gout, known as hyperuricemia, may also have systemic consequences, including an increased risk for kidney dysfunction, elevated CRP, hypertension and possibly other cardiovascular risk factors.

In 2007, sales of HIV antivirals in the seven major drug markets (the United States, Japan, France, Germany, Italy, Spain and the United Kingdom) were approximately $9.3 billion and are expected to reach $15.1 billion in 2017, according to Datamonitor. While the treatment of HIV has improved dramatically over the past decade, we believe that there remains a significant need for new treatments that are effective against drug-resistant virus, safer for women and African-Americans, well tolerated and convenient to take. According to the Centers for Disease Control and Prevention (CDC), 56,300 people were newly infected with HIV in 2006, 40% more than estimated previously. African-Americans accounted for more than 45% of the new infections. Women account for 27% of the new infections. We are developing products for the treatment of HIV that are highly active against resistant strains, have a high genetic barrier to resistance, have a better safety profile than current drugs in African-Americans and women, can be taken once a day, and are easy to formulate in a combination pill with current drugs.

We also believe that there is growing interest in the potential for targeted therapies, including kinase inhibitors, for the treatment of both cancer and inflammatory disease. Sales of products used in the treatment of cancer were expected to exceed $45.0 billion in 2008, according to IMS Health Incorporated, fueled by strong acceptance of innovative and effective targeted therapies. The failure rate of kinase inhibitor compounds in clinical development in oncology is only 53% versus 82% in the oncology field as a whole. In 2007, the worldwide market for targeted therapies for inflammatory diseases was more than $8.6 billion. Given the role that MEK appears to play in cancer and inflammatory diseases and the increasing preference for oral therapies, we believe that RDEA119 and our next generation MEK inhibitors, if successfully developed, approved and commercialized, could participate in these growing markets.

Bayer Relationship

On April 28, 2009, we entered into the License Agreement with Bayer to develop and commercialize small-molecule mitogen-activated ERK kinase inhibitors for the treatment of cancer. Under the terms of the License Agreement, we granted to Bayer a worldwide, exclusive license to develop and commercialize our MEK inhibitors for all indications. Our lead product candidate from this program, RDEA119, is currently being evaluated both as a single agent and in

combination with sorafenib in advanced cancer patients. Bayer has agreed to pay us a non-refundable, upfront license fee of $35 million for the development and commercialization rights to our MEK inhibitors. Potential payments under the License Agreement could total up to $407 million, not including royalties. We will also be eligible to receive low double-digit royalties on worldwide sales of products under the License Agreement.

Valeant Relationship

On December 21, 2006, we acquired intellectual property and other assets from Valeant Research & Development, Inc. related to RDEA806 and our next generation NNRTI program, and RDEA119 and our next generation MEK

Table of Contents

inhibitor program. Concurrent with the closing of the acquisition from Valeant, we hired a new senior management team and changed our name from IntraBiotics Pharmaceuticals, Inc. to Ardea Biosciences, Inc.

In consideration for the assets purchased from Valeant and subject to the satisfaction of certain conditions, Valeant has the right to receive development-based milestone payments and sales-based royalty payments from us. There is one set of milestones for RDEA806 and the next generation NNRTI program and a separate set of milestones for RDEA119 and the next generation MEK inhibitor program. In the event of the successful commercialization of a product incorporating RDEA806 or a compound from the next generation NNRTI program, resulting milestone payments could total up to $25.0 million. In the event of the successful commercialization of a product incorporating RDEA119 or a compound from the next generation MEK inhibitor program, resulting milestone payments could total up to $17.0 million. Milestones are paid only once for each program, regardless of how many compounds are developed or commercialized. The first milestone payments of $2.0 million and $1.0 million in the NNRTI program and the MEK inhibitor program, respectively, would be due after the first patient is dosed in the first Phase 2b study, and approximately 80% of the total milestone payments in each program would be due upon United States Food and Drug Administration acceptance and approval of a New Drug Application, or NDA. The royalty rates on all products are in the mid-single digits. We agreed to further develop these compounds with the objective of obtaining marketing approval in the United States, the United Kingdom, France, Spain, Italy and Germany.

Valeant also has the right to exercise a one-time option to repurchase commercialization rights in territories outside the United States and Canada (the Valeant Territories) to the first NNRTI compound derived from the acquired intellectual property to complete a Phase 2b study in HIV. If Valeant exercises this option, which it can do following the completion of a Phase 2b HIV study, but prior to the initiation of a Phase 3 study, we would be responsible for completing Phase 3 studies and for registration of the product in the United States and the European Union. Valeant would pay us a $10.0 million option fee, up to $21.0 million in milestone payments based on regulatory approvals, and a mid-single-digit royalty on product sales in the Valeant Territories.

We were incorporated in the State of Delaware in January 1994. Our corporate offices are located at 4939 Directors Place, San Diego, CA 92121. Our telephone number is (858) 652-6500. Our website address is www.ardeabio.com. We make available free of charge through our Internet website our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, or the Exchange Act, as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. Information contained on our website, unless specifically referenced herein, does not constitute part of this prospectus or any prospectus supplement.

Risk Factors

An investment in our common stock involves a high degree of risk. Before you make a decision to invest in our common stock, you should consider carefully the risks described in the section entitled Risk Factors contained in our Annual Report on Form 10-K for the fiscal year ended December 31, 2008, as filed with the SEC on March 13, 2009, which is incorporated herein by reference in its entirety, as well as any amendment or update thereto reflected in subsequent filings with the SEC and any information in this prospectus or any accompanying prospectus supplement. If any of these risks actually occur, our business, operating results, prospects or financial condition could be materially and adversely affected. This could cause the trading price of our common stock to decline and you may lose part or all of your investment. Moreover, the risks described are not the only ones that we face. Additional risks not presently known to us or that we currently deem immaterial may also affect our business, operating results, prospects or financial condition.

Forward-Looking Statements

This prospectus, the documents that we incorporate by reference herein and the applicable prospectus supplement contain 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. Any statements about our expectations, beliefs, plans, objectives, assumptions or future events or performance are not historical facts and may be forward-looking. These statements are often, but not always, made through the use of words or phrases such as anticipate, estimate, plan, project, continuing, ongoing, goal, expect, management believes, we believe, we intend and similar words or phrases. Accordingly, these statements involve estimates, assumptions and uncertainties that could cause actual results to differ materially from those expressed in them. Any forward-looking statements are qualified in their entirety by reference to the factors discussed in this prospectus, in the applicable prospectus supplement or incorporated by reference.

Table of Contents

Because the factors discussed in this prospectus, incorporated by reference herein or discussed in the applicable prospectus supplement, and even factors of which we are not yet aware, could cause actual results or outcomes to differ materially from those expressed in any forward-looking statements made by or on behalf of us, you should not place undue reliance on any such forward-looking statements. These statements are subject to risks and uncertainties, known and unknown, which could cause actual results and developments to differ materially from those expressed or implied in such statements. We have included important factors in the cautionary statements included in this prospectus, in the applicable prospectus supplement, particularly under the heading RISK FACTORS, and in our SEC filings that we believe could cause actual results or events to differ materially from the forward-looking statements that we make. These and other risks are also detailed in our reports filed from time to time under the Securities Act and/or the Exchange Act. You are encouraged to read these filings as they are made.

Further, any forward-looking statement speaks only as of the date on which it is made, and we undertake no obligation to update any forward-looking statement or statements to reflect events or circumstances after the date on which such statement is made or to reflect the occurrence of unanticipated events. New factors emerge from time to time, and it is not possible for us to predict which factors will arise. In addition, we cannot assess the impact of each factor on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements.

Table of Contents

Use of Proceeds

Except as described in any prospectus supplement, we currently intend to use the net proceeds from the sale of the securities offered hereby to fund the costs of clinical trial and other research and development activities and for general corporate purposes, including working capital. We may also use a portion of the net proceeds to in-license, invest in or acquire businesses or technologies that we believe are complementary to our own, although we have no current plans, commitments or agreements with respect to any acquisitions as of the date of this prospectus. Pending these uses, we intend to invest the net proceeds in investment-grade, interest-bearing securities.

Plan of Distribution

We may sell our common stock covered by this prospectus in any of three ways (or in any combination):

to or through underwriters or dealers;

directly to one or more purchasers; or

through agents.

We may distribute the common stock:

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 the prevailing market prices; or

at negotiated prices.

Each time we offer and sell shares of our common stock covered by this prospectus, we will provide a prospectus supplement or supplements that will describe the method of distribution and set forth the terms of the offering, including:

the name or names of any underwriters, dealers or agents;

the amounts of securities underwritten or purchased by each of them;

the purchase price of the common stock and the proceeds we will receive from the sale;

any over-allotment options under which underwriters may purchase additional common stock from us;

any underwriting discounts or commissions or agency fees and other items constituting underwriters or agents compensation;

the public offering price of the common stock;

any discounts, commissions or concessions allowed or reallowed or paid to dealers; and

any securities exchange or market on which the common stock may be listed.

Any public offering price and any discounts or concessions allowed or reallowed or paid to dealers may be changed from time to time. We may determine the price or other terms of the common stock offered under this prospectus by use of an electronic auction. We will describe how any auction will determine the price or any other terms, how potential investors may participate in the auction and the nature of the obligations of the underwriter, dealer or agent in the applicable prospectus supplement.

Underwriters or dealers may offer and sell the offered common stock from time to time in one or more transactions, including negotiated transactions, at a fixed public offering price or at varying prices determined at the time of sale. If underwriters or dealers are used in the sale of any common stock, the common stock will be acquired by the underwriters or dealers for their own account and may be resold from time to time in one or more transactions described above. The common stock may be either offered to the public through underwriting syndicates represented by managing underwriters, or directly by underwriters or dealers. Generally, the underwriters or dealers obligations to purchase the common stock will be subject to certain conditions precedent. The underwriters or dealers will be obligated to purchase all of the common stock if they purchase any of the common stock, unless otherwise specified in the prospectus supplement. We may use underwriters with whom we have a material relationship. We will describe the nature of any such relationship in the prospectus supplement, naming the underwriter.

Table of Contents

We may sell the common stock through agents from time to time. The prospectus supplement will name any agent involved in the offer or sale of the common stock and any commissions we pay to them. Generally, any agent will be acting on a best efforts basis for the period of its appointment. We may authorize underwriters, dealers or agents to solicit offers by certain purchasers to purchase the common stock from us at the public offering price set forth in the prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. The contracts will be subject only to those conditions set forth in the prospectus supplement, and the prospectus supplement will set forth any commissions we pay for solicitation of these contracts.

Agents, dealers and underwriters may be entitled to indemnification by us against certain civil liabilities, including liabilities under the Securities Act, or to contribution with respect to payments which the agents, dealers or underwriters may be required to make in respect thereof. Agents, dealers and underwriters may be customers of, engage in transactions with, or perform services for us in the ordinary course of business.

Any underwriter may engage in overallotment, stabilizing transactions, short covering transactions and penalty bids in accordance with Regulation M under the Exchange Act. Overallotment involves sales in excess of the offering size, which create a short position. This short sales position may involve either covered short sales or naked short sales. Covered short sales are short sales made in an amount not greater than the underwriters over-allotment option to purchase additional shares in this offering described above. The underwriters may close out any covered short position either by exercising their over-allotment option or by purchasing shares in the open market. To determine how they will close the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market, as compared to the price at which they may purchase shares through the over-allotment option. Naked short sales are short sales in excess of the over-allotment option. The underwriters must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that, in the open market after pricing, there may be downward pressure on the price of the shares that could adversely affect investors who purchase shares in this offering. Stabilizing transactions permit bids to purchase the underlying security for the purpose of fixing the price of the security so long as the stabilizing bids do not exceed a specified maximum. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the securities originally sold by the dealer are purchased in a covering transaction to cover short positions.

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

Neither we nor the underwriters make any representation or prediction as to the effect that the transactions described above may have on the price of the shares. If such transactions are commenced, they may be discontinued without notice at any time.

Legal Matters

The validity of the issuance of the shares of our common stock offered by this prospectus will be passed upon for us by Cooley Godward Kronish LLP, San Diego, California.

Experts

Stonefield Josephson, Inc., independent registered public accounting firm, has audited our consolidated financial statements as of and for the year ended December 31, 2008 and the effectiveness of Ardea Biosciences, Inc. s internal

control over financial reporting as of December 31, 2008, as set forth in their reports, each of which are included in our Annual Report on Form 10-K for the year ended December 31, 2008 as filed with the SEC on March 13, 2009, and are incorporated by reference in this prospectus and elsewhere in the registration statement. These financial statements are incorporated by reference in reliance on Stonefield Josephson, Inc. s reports, given on their authority as experts in accounting and auditing.

Table of Contents

Where You Can Find More Information

We are a reporting company and file annual, quarterly and current reports, proxy statements and other information with the Securities and Exchange Commission, or the SEC. You may read and copy these reports, proxy statements and other information at the SEC s public reference room at 100 F Street, N.E., Washington, D.C. 20549 or at the SEC s other public reference facilities. Please call the SEC at 1-800-SEC-0330 for more information about the operation of the public reference room. You can request copies of these documents by writing to the SEC and paying a fee for the copying costs. Our SEC filings are also available at the SEC s website at http://www.sec.gov.

This prospectus is part of a registration statement that we filed with the SEC. The registration statement contains more information than this prospectus regarding us and our common stock, including certain exhibits and schedules. You can obtain a copy of the registration statement from the SEC at the address listed above or from the SEC s internet website.

Incorporation of Certain Information by Reference

We are allowed to incorporate by reference information contained in documents that we file with the SEC. This means that we can disclose important information to you by referring you to those documents and that the information in this prospectus is not complete. You should read the information incorporated by reference for more detail. We incorporate by reference in two ways. First, we list certain documents that we have already filed with the SEC. The information in these documents is considered part of this prospectus. Second, the information in documents that we file in the future will update and supersede the current information in, and incorporated by reference in, this prospectus.

We incorporate by reference the documents listed below and any filings we will make with the SEC under Section 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date we filed the initial registration statement of which this prospectus is a part and before the effective date of the registration statement and any future filings we will make with the SEC pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act from the date of this prospectus but prior to the termination of the offering (in each case, except for the information in any of the foregoing Current Reports on Form 8-K and Form 8-K/A furnished under Item 2.02 or Item 7.01 therein):

- Annual report on Form 10-K for the year ended December 31, 2008, filed with the SEC on March 13, 2009;
- Quarterly report on Form 10-Q for the quarter ended March 31, 2009, filed with the SEC on May 11, 2009;
- Current reports on Form 8-K filed with the SEC on April 14, 2009, May 1, 2009 and May 8, 2009 (except for the information in such reports that shall not be deemed filed for purposes of Section 18 of the Exchange Act); and
- The description of our common stock set forth in our registration statement on Form 8-A12B (File No. 001-33734), filed under the Securities Exchange Act of 1934 on October 9, 2007, and any amendment or report filed for the purpose of updating that description.

You may request a copy of these filings at no cost, by writing or telephoning us at the following address or telephone number:

Ardea Biosciences, Inc.
4939 Directors Place

San Diego, CA 92121
Attn: Investor Relations
(858) 652-6500

This prospectus is part of a registration statement that we filed with the SEC. The registration statement contains more information than this prospectus regarding us and our common stock, including certain exhibits and schedules. You can obtain a copy of the registration statement from the SEC at the address listed above or from the SEC s internet website. You should rely only on the information incorporated by reference or provided in this prospectus or any prospectus supplement. We have not authorized anyone else to provide you with different information. You should not assume that the information in this prospectus or any prospectus supplement is accurate as of any date other than the date on the front of these documents.

Table of Contents

3,500,000 Shares

Common Stock

Prospectus Supplement

Sole Book-Running Manager

Jefferies & Company

Joint Lead Manager

Oppenheimer & Co.

April 6, 2010