Ardea Biosciences, Inc./DE
Form 424B5
January 21, 2011

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Filed Pursuant to Rule 424(b)(5)
Registration No. 333-170105

PROSPECTUS SUPPLEMENT
(to Prospectus dated November 15, 2010)

2,750,000 Shares

Common Stock

We are selling 2,750,000 shares of our common stock.

Our shares trade on The NASDAQ Global Select Market under the symbol RDEA. On January 19, 2011, the last sale price of the shares as reported on The NASDAQ Global Select Market was $26.81 per share.

As part of this offering, the underwriters are selling an aggregate of 577,400 shares of our common stock to entities affiliated with two of our directors and principal stockholders at the public offering price.

Investing in the common stock involves risks that are described in the Risk Factors section on page S-7 of this prospectus supplement.

	Price to Public	Underwriting Discount(1)	Proceeds, Before Expenses, to Us(1)
Per share	$26.00	$1.56	$24.44
Total	$71,500,000	$3,389,256	$68,110,744

(1) The underwriters will not receive any underwriting discount on the sale of an aggregate of 577,400 shares of our common stock to entities affiliated with two of our directors and principal stockholders.

The underwriters may also exercise their option to purchase up to an additional 412,500 shares from us, at the public offering price, less the underwriting discount, for 30 days after the date of this prospectus supplement to cover overallotments, if any.

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

The shares will be ready for delivery on or about January 25, 2011.

Joint Book-Running Managers

BofA Merrill Lynch **Jefferies**

JMP Securities **Brean Murray, Carret & Co.** **Roth Capital Partners**

The date of this prospectus supplement is January 20, 2011.

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Prospectus Supplement

Prospectus

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

prospectus, and any free writing prospectus prepared by or on behalf of us that we have authorized for use in connection with this offering, in their entirety before making an investment decision. You should also read and consider the information in the documents we have referred you to in the sections of this prospectus supplement entitled Where You Can Find More Information and Information Incorporated by Reference.

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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 November 15, 2010, 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.

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 whollyowned 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.

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SUMMARY

This summary highlights certain information about us, this offering and selected information contained elsewhere in or incorporated by reference into this prospectus supplement. 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, you should 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. If you invest in our common stock, you are assuming a high degree of risk. See Risk Factors in this prospectus supplement beginning on page S-7 and in the documents incorporated by reference into this prospectus supplement.

Overview

We are a biotechnology company focused on the development of small-molecule therapeutics for the treatment of serious diseases. The current status of our development programs is as follows:

Product Portfolio

Product Candidate	Target Indication	Development Status
RDEA594	Gout	Phase 2 completed
Next-generation URAT1 inhibitors	Gout	Preclinical development ongoing
BAY 86-9766 (formerly known as RDEA119)	Cancer	Phase 2 ongoing

Gout

Gout is a painful, debilitating and progressive disease. While gout is a treatable condition, there are limited treatment options, and a number of adverse effects are associated with most current therapies.

Gout is caused by abnormally elevated levels of uric acid in the blood stream. Drugs currently used to treat the underlying cause of gout work by lowering blood or serum uric acid (sUA) levels. Approximately 90 percent of gout patients are considered to have a defect in their ability to excrete sufficient amounts of uric acid and are classified as under-excreters of uric acid, which leads to excessive levels of uric acid in the blood stream. Our most advanced product candidate, RDEA594, is an inhibitor of URAT1, a transporter in the kidney that regulates uric acid excretion from the body. RDEA594 normalizes the amount of uric acid excreted by gout patients. Since the majority of gout patients are under-excreters , normalizing uric acid excretion by moderating URAT1 transporter activity with RDEA594 may provide the most physiologically appropriate and effective means of reducing blood or sUA levels. In addition, because RDEA594 works by increasing the excretion of uric acid rather than reducing the body s production of uric acid, it can be used in combination with sUA lowering agents that reduce the production of uric acid such as allopurinol or febuxostat (Uloric®, Takeda Pharmaceutical Company Limited).

Allopurinol is the most commonly prescribed sUA lowering drug in the United States, currently accounting for greater than 90 percent of U.S. unit sales of sUA lowering drugs. However, in recent controlled clinical studies, only 30-40 percent of gout patients achieved an adequate response to allopurinol as defined by the achievement of sUA

levels of less than 6 mg/dL, a commonly used medical target. We are developing RDEA594, both as monotherapy and to be used in combination with drugs like allopurinol, in order to treat patients not adequately responding to their current therapy.

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To date, results from our RDEA594 Phase 2 development program have indicated RDEA594 s clinical utility, as follows:

In a Phase 2b study (Study 203) in 208 allopurinol refractory gout patients, adding RDEA594 to allopurinol produced highly statistically significant reductions in sUA of up to 30 percent with up to 89 percent of patients taking the combination reaching the medically recommended target of reducing sUA to below 6 mg/dL at the highest dose tested. The combination of RDEA594 and allopurinol was also well tolerated, with no serious adverse events and only two discontinuations due to adverse events on RDEA594. Patients admitted to the study had sUA levels greater than or equal to 6 mg/dL despite being on a stable dose of allopurinol. In this 28-day, randomized, double-blind, placebo-controlled study, each patient received once daily doses of 200 mg of RDEA594, 400 mg of RDEA594, 600 mg of RDEA594 or placebo while remaining on the stable dose of allopurinol such patient was receiving when he or she entered the study. Mean reductions in sUA after 4 weeks on 200 mg, 400 mg and 600 mg of RDEA594 plus a standard dose of allopurinol were 16 percent, 22 percent and 30 percent, respectively, compared to an increase in sUA of 3 percent on placebo. Response rates on this study increased in a dose-related manner and were highly clinically and statistically significant at all dose levels when compared to allopurinol alone. Using a last observation carried forward (LOCF) analysis, which was the method utilized for the U.S. approval of Uloric®, the response rates for the 200 mg, 400 mg and 600 mg plus a standard dose of allopurinol were 71 percent, 76 percent and 89 percent, respectively, compared to 29 percent on allopurinol alone.

In a Phase 1b clinical pharmacology study evaluating the use of RDEA594 in combination with febuxostat (Study 111) in 21 gout patients with hyperuricemia (sUA greater than or equal to 8 mg/dL), 100 percent of patients receiving the combination of RDEA594 and febuxostat achieved sUA levels below the clinically important target level of 6 mg/dL, compared to 67 percent and 56 percent for patients receiving 40 mg and 80 mg, respectively, of febuxostat alone. At the highest combination doses tested (600 mg RDEA594 combined with 80 mg febuxostat), 100 percent of patients reached sUA levels below 4 mg/dL, with 58 percent achieving levels below 3 mg/dL. No patient achieved these reduced sUA levels on either dose of febuxostat alone. The combination of RDEA594 and febuxostat was also well tolerated, with no serious adverse events or discontinuations due to adverse events and no clinically relevant drug interactions observed between RDEA594 and febuxostat.

In a 20-patient Phase 1b clinical pharmacology study evaluating the use of RDEA594 in combination with 300 mg of allopurinol (Study 110) in gout patients with hyperuricemia (sUA greater than or equal to 8mg/dL), 100 percent of patients at all combination doses evaluated achieved sUA levels below the target of 6 mg/dL, compared to 20 percent of patients on allopurinol alone. Of patients receiving RDEA594 600 mg alone, 67 percent achieved sUA levels below 6 mg/dL, which was significantly higher than the percent reaching target on allopurinol alone ($p < 0.05$). At the highest combination doses tested (600 mg of RDEA594 combined with 300 mg of allopurinol), 90 percent of patients reached sUA levels below 5 mg/dL, and 50 percent reached levels below 4 mg/dL. The combination of RDEA594 and allopurinol was well tolerated, with no serious adverse events or discontinuations that were considered possibly related to RDEA594 or the combination. No clinically relevant drug interactions were observed between RDEA594 and allopurinol in this study; however, plasma levels of oxypurinol, an active metabolite of allopurinol, were decreased approximately 25-35 percent.

When administered as a single agent in a Phase 2b study (Study 202), RDEA594 was well tolerated and produced significant reductions in uric acid in the blood. In this randomized, double-blind, placebo-controlled, dose-escalation study of 123 gout patients with hyperuricemia (sUA levels greater

than or equal to 8 mg/dL) the primary endpoint was a significant increase in the proportion of patients who achieved a response, defined as a reduction of uric acid in the

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blood to < 6 mg/dL after four weeks of treatment, compared to placebo. The primary endpoint was achieved, uric acid decreased and response rates increased in a dose-related manner and were highly clinically and statistically significant at the two highest doses tested. At the highest dose the response rate was 60 percent, compared to 0 percent for placebo ($p < 0.0001$). RDEA594 was also well tolerated in this study, with no serious adverse events and only two discontinuations due to adverse events on RDEA594.

Results from multiple studies have indicated that the activity of RDEA594 is not diminished in patients with mild renal impairment. A smaller dataset from Study 202 indicate that after 4 weeks of monotherapy with RDEA594, patients with moderate renal impairment had similar reductions in sUA as compared to patients with no renal impairment.

We are also developing next-generation inhibitors of the URAT1 transporter for the treatment of gout patients with hyperuricemia. Based on preclinical results, our next-generation inhibitors demonstrate many of the same positive attributes as RDEA594, but with greater potency against the URAT1 transporter. Preclinical development activities with respect to these next-generation product candidates are ongoing.

Cancer

Mitogen-activated ERK kinase (MEK) is believed to play an important role in cancer cell proliferation, apoptosis and metastasis. BAY 86-9766 (formerly known as RDEA119) is a potent and selective inhibitor of MEK in development for the treatment of cancer. *In vivo* preclinical tests have shown BAY 86-9766 to have potent anti-tumor activity. In addition, preclinical *in vitro* and *in vivo* studies of BAY 86-9766 have demonstrated synergistic activity across multiple tumor types when BAY 86-9766 is used in combination with other anti-cancer agents, including sorafenib (Nexavar®, Bayer HealthCare AG (Bayer) and Onyx Pharmaceuticals, Inc.).

In April 2009, we entered into a global license agreement with Bayer to develop and commercialize MEK inhibitors for the treatment of cancer. Under the license agreement, we are responsible for the completion of the Phase 1 and Phase 1/2 studies. Thereafter, Bayer will be responsible for the further development and commercialization of BAY 86-9766 and any of our other MEK inhibitors.

We have completed our Phase 1 study of BAY 86-9766 as a single agent in advanced cancer patients with different tumor types and we have identified the maximum tolerated dose (MTD) of BAY 86-9766 in our Phase 1/2 study in combination with sorafenib. Dosing in the MTD expansion cohort of the Phase 1/2 study is ongoing.

Phase 1 results to date in refractory patients with advanced solid tumors have demonstrated that BAY 86-9766 is well tolerated with a number of patients achieving stable disease or partial response to treatment. Based on the preclinical and Phase 1/2 results, Bayer recently initiated a Phase 2 study of BAY 86-9766 in combination with sorafenib as first-line therapy for primary liver cancer.

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. There have been only two new products approved in the United States for the treatment of gout in the last 40 years. According to the Decision Resources, an estimated 19.7 million adults in the seven major markets (the United States, Japan, France, Germany, Italy, Spain and United Kingdom) suffer from gout. The incidence and severity of gout is increasing in the

United States. According to the Annals of Rheumatic Diseases, there

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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. Many chronic gout sufferers are unable to achieve target reductions in uric acid with current treatments. 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 C-reactive protein, hypertension and possibly other cardiovascular risk factors.

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 $52.4 billion in 2009 according to IMS Health Incorporated, fueled by strong acceptance of innovative and effective targeted therapies. In addition to cancer, MEK appears to play a role in inflammatory diseases and we believe that BAY 86-9766 and our next generation MEK inhibitors, if successfully developed, approved and commercialized, could participate in these growing markets.

Bayer Relationship

Under the terms of our license agreement with Bayer, we granted to Bayer a worldwide, exclusive license to develop and commercialize our MEK inhibitors for all indications. In June 2009, Bayer paid us a non-refundable, upfront cash payment of $35 million in partial consideration for the exclusive right to develop and commercialize our MEK inhibitors. In January 2011, we received a $15 million milestone payment from Bayer triggered by the initiation of a Phase 2 study evaluating BAY 86-9766 in combination with sorafenib for the treatment of hepatocellular carcinoma or primary liver cancer. Potential payments under the license agreement with Bayer could total up to $407 million, not including royalties. This amount includes the upfront cash payment and the $15 million milestone payment we received in January 2011, as well as additional cash payments upon achievement of certain development, regulatory and sales-based milestones. We are also eligible to receive low double-digit royalties on sales of products under the license agreement.

Valeant Relationship

In December 2006, we acquired intellectual property and other assets from Valeant Research & Development, Inc. (Valeant) related to RDEA806 and our next generation non-nucleoside reverse transcriptase inhibitor (NNRTI) program, as well as BAY 86-9766 and our next generation MEK inhibitor program. In consideration for the assets purchased from Valeant and subject to the satisfaction of certain conditions, Valeant received certain rights, including the right to receive from us development-based milestone payments and sales-based royalty payments. There is one set of potential milestones totaling up to $25 million for RDEA806 and the next generation NNRTI program, and a separate set of potential milestones totaling up to $17 million for BAY 86-9766 and the next generation MEK inhibitor program. The first milestone payment of $2 million in the NNRTI program would be due after the first patient is dosed in the first Phase 2b study. The first milestone payment of $1 million in the MEK inhibitor program was paid to Valeant in January 2011 in connection with the initiation of a Phase 2 study relating to BAY 86-9766. The royalty rates on all products under our agreement with Valeant are in the mid-single digits.

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Financial Update

We estimate that the total amount of our cash, cash equivalents and short-term investments, available-for-sale as of December 31, 2010 was approximately $80.6 million. This amount is preliminary, has not been audited and is subject to change upon completion of our ongoing audit. Moreover, this amount does not reflect the $15 million milestone payment we received in January 2011 described above. Additional information and disclosures would be required for a more complete understanding of our financial position and results of operations as of December 31, 2010.

Corporate Information

We were incorporated in the State of Delaware in January 1994. Our principal executive 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.

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THE OFFERING

Common stock offered by us	2,750,000 shares
Common stock to be outstanding immediately after this offering	26,116,979 shares
Overallotment option	The underwriters have an option to purchase up to 412,500 additional shares of our common stock to cover overallotments, if any. The underwriters may exercise this option at any time within 30 days from the date of this prospectus supplement.
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. See the sections entitled Use of Proceeds and Underwriting in this prospectus supplement.
Nasdaq Global Select Market symbol	RDEA
Risk factors	An investment in our common stock involves a high degree of risk. See the section entitled Risk Factors in this prospectus supplement.
Insider participation	As part of this offering, the underwriters are selling an aggregate of 577,400 shares of our common stock to entities affiliated with two of our directors and principal stockholders, Felix J. Baker and Kevin C. Tang, at the public offering price set forth on the cover page of this prospectus.

The number of shares of our common stock to be outstanding immediately after this offering is based on 23,366,979 shares outstanding as of December 31, 2010 and excludes:

- 3,538,191 shares of our common stock issuable upon the exercise of options outstanding as of December 31, 2010, having a weighted-average exercise price of approximately $14.46 per share;
- 684,332 shares of our common stock subject to warrants outstanding as of December 31, 2010, having an exercise price of $11.14 per share; and
- an aggregate of 1,247,390 shares of common stock reserved for future issuance under our 2002 Non-Officer Equity Incentive Plan, as amended, 2000 Employee Stock Purchase Plan, and Amended and Restated 2004 Stock Incentive Plan as of December 31, 2010.

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

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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 section captioned Risk Factors contained in our Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2010, which are incorporated by reference in this prospectus supplement and the accompanying prospectus in their entirety, together with the other information in this prospectus supplement, the accompanying prospectus, the information and documents incorporated by reference, and in any free writing prospectus prepared by or on behalf of us that we have authorized for use in connection with this offering. If any of these risks actually occur, our business, financial condition, results of operations or cash flows 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, delay 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 $26.00 per share, and our net tangible book value per share as of September 30, 2010, if you purchase shares of common stock in this offering, you will suffer immediate and substantial dilution of $20.54 per share in the net tangible book value of the common stock. See the section entitled Dilution below for a more detailed discussion of the dilution you would 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 December 31, 2010, an aggregate of 1,247,390 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 3,538,191 shares of our common stock and warrants to purchase 684,332 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.

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FORWARD-LOOKING STATEMENTS

This prospectus supplement, the accompanying prospectus, the documents we have filed with the SEC that are incorporated herein by reference and any free writing prospectus prepared by or on behalf of us or to which we have referred you contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, or Securities Act, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, or Exchange Act. These statements are based on our current expectations, assumptions, estimates and projections about our business and our industry, and involve known and unknown risks, uncertainties and other factors that may cause our results, levels of activity, performance or achievement to be materially different from any future results, levels of activity, performance or achievements expressed or implied by the forward-looking statements. Forward-looking statements 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 and timing of applications for regulatory approvals;
- our ability to obtain and maintain regulatory approvals for our product candidates;
- 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;
- our estimated cash and cash equivalents and short-term investments;
- 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 anticipate, believe, could, estimate, expect, intend, may, plan, potential, predict, project, should, will, would and similar expressions i forward-looking statements. While we believe that we have a reasonable basis for each forward-looking statement, we caution you that these statements are based on a combination of facts and factors currently known by us and our projections of the future, about which we cannot be certain. We discuss many of these risks, uncertainties and other factors in greater detail under the sections captioned Risk Factors contained in this prospectus supplement and in our Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2010. Given these risks, uncertainties and other factors, you should not place undue reliance on these forward-looking statements. Also, these

forward-looking statements represent our estimates and assumptions only as of the date such forward-looking statements are made. You should read carefully both this prospectus supplement and the accompanying prospectus, together with the information incorporated herein by reference as described under the heading Information Incorporated by Reference in this prospectus supplement, completely and with the understanding that our actual future results may be materially different from what we expect. We hereby qualify all of our forward-looking statements by these cautionary statements.

Except as required by law, we assume no obligation to update these forward-looking statements publicly, or to update the reasons actual results could differ materially from those anticipated in these forward-looking statements, even if new information becomes available in the future.

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USE OF PROCEEDS

We estimate that the net proceeds from the sale of the 2,750,000 shares of common stock that we are offering will be approximately $67.8 million, or approximately $77.9 million if the underwriters exercise in full their option to purchase 412,500 additional shares of common stock, based on the public offering price of $26.00 per share and after deducting the underwriting discount and estimated offering expenses payable by us. For more details, see the section entitled Underwriting in this prospectus supplement.

We intend to use the net proceeds from this offering 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 from this offering to in-license, invest in or acquire businesses, technologies, product candidates or other intellectual property 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 net proceeds to us from this offering. Accordingly, we will retain broad discretion over the use of these proceeds. Pending application of the net proceeds as described above, we intend to temporarily invest the net proceeds in interest-bearing, investment-grade securities.

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DILUTION

Our net tangible book value as of September 30, 2010 was approximately $73.0 million, or $3.17 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 September 30, 2010. 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 2,750,000 shares of our common stock in this offering at the public offering price of $26.00 per share and after deducting the underwriting discount and estimated offering expenses payable by us, our as adjusted net tangible book value as of September 30, 2010 would have been approximately $140.9 million, or $5.46 per share. This represents an immediate increase in net tangible book value of $2.29 per share to existing stockholders and immediate dilution in net tangible book value of $20.54 per share to new investors purchasing our common stock in this offering at the assumed public offering price. The following table illustrates this dilution on a per share basis:

Public offering price per share		$ 26.00
Net tangible book value per share as of September 30, 2010	$ 3.17	
Increase per share attributable to investors purchasing our common stock in this offering	2.29	
As adjusted net tangible book value per share after this offering		5.46
Dilution per share to investors purchasing our common stock in this offering		$ 20.54

If the underwriters exercise in full their option to purchase 412,500 additional shares of common stock at the public offering price of $26.00 per share, the as adjusted net tangible book value after this offering would be $5.75 per share, representing an increase in net tangible book value of $2.58 per share to existing stockholders and immediate dilution in net tangible book value of $20.25 per share to new investors purchasing our common stock in this offering at the assumed public offering price.

The number of shares of our common stock to be outstanding immediately after this offering is based on 23,076,321 shares outstanding as of September 30, 2010 and excludes:

- 3,200,217 shares of our common stock issuable upon the exercise of options outstanding as of September 30, 2010, having a weighted-average exercise price of approximately $12.23 per share;
- 684,332 shares of our common stock subject to warrants outstanding as of September 30, 2010, having an exercise price of $11.14 per share; and
- an aggregate of 1,876,022 shares of common stock reserved for future issuance under our 2002 Non-Officer Equity Incentive Plan, as amended, 2000 Employee Stock Purchase Plan, and Amended and Restated 2004 Stock Incentive Plan as of September 30, 2010.

To the extent that outstanding options or warrants are exercised, you 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.

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UNDERWRITING

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

Underwriter	Number of Shares
Merrill Lynch, Pierce, Fenner & Smith Incorporated	1,567,500
Jefferies & Company, Inc.	495,000
JMP Securities LLC	275,000
Brean Murray, Carret & Co., LLC	275,000
Roth Capital Partners, LLC	137,500
Total	2,750,000

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

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

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

Commissions and Discounts

The representatives have advised us that the underwriters propose initially to offer the shares to the public at the public offering price set forth on the cover page of this prospectus and to dealers at that price less a concession not in excess of $0.93 per share. After the initial offering, the public offering price, concession or any other term of the offering may be changed.

The underwriters have agreed to sell an aggregate of 577,400 shares of our common stock to entities affiliated with two of our directors and principal stockholders, Felix J. Baker and Kevin C. Tang, at the public offering price set forth on the cover page of this prospectus supplement. The underwriters will not receive any underwriting discount on the sale of such shares.

The following table shows the per share and total underwriting discount (other than in connection with the sale of 577,400 shares of our common stock to entities affiliated with two of our directors and

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principal stockholders). The information assumes either no exercise or full exercise by the underwriters of their overallotment option.

	Without Option	With Option
Per share	$1.56	$1.56
Total	$3,389,256	$4,032,756

The expenses of the offering, not including the underwriting discount, are estimated at $300,000 and are payable by us. However, the underwriters have agreed to reimburse us for certain of our expenses incurred in connection with this offering.

Overallotment Option

We have granted an option to the underwriters, exercisable for 30 days after the date of this prospectus, to purchase up to 412,500 additional shares at the public offering price, less the underwriting discount. The underwriters may exercise this option solely to cover any overallotments. If the underwriters exercise this option, each will be obligated, subject to conditions contained in the underwriting agreement, to purchase a number of additional shares proportionate to that underwriter s initial amount reflected in the above table.

No Sales of Similar Securities

We, our executive officers and directors and certain of our principal stockholders have agreed not to sell or transfer any common stock or securities convertible into, exchangeable for, exercisable for common stock, for 90 days after the date of this prospectus without first obtaining the written consent of Merrill Lynch, Pierce, Fenner & Smith Incorporated. Specifically, we and these other persons have agreed, with certain limited exceptions, not to directly or indirectly:

offer, pledge, transfer, sell or contract or grant any option to sell (including without limitation any short sale) any shares of common stock;

establish an open put equivalent position within the meaning of Rule 16a-1(h) under the Exchange Act of shares of common stock; or

otherwise dispose of any shares of common stock, options or warrants to acquire shares of common stock.

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

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Nasdaq Global Select Market Listing

The shares are listed on the Nasdaq Global Select Market under the symbol RDEA.

Price Stabilization, Short Positions

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

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

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

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

Passive Market Making

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

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