Ardea Biosciences, Inc./DE
Form 8-K
January 19, 2011

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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 8-K

CURRENT REPORT
Pursuant to Section 13 or 15(d) of the
Securities Exchange Act of 1934
Date of Report (Date of earliest event reported): January 19, 2011
Ardea Biosciences, Inc.
(Exact name of registrant as specified in its charter)

Delaware	**1-33734**	**94-3200380**
(State or other jurisdiction of incorporation)	(Commission File Number)	(IRS Employer Identification No.)

4939 Directors Place **San Diego, California**	**92121**
(Address of principal executive offices)	(Zip Code)

Registrant s telephone number, including area code: **(858) 652-6500**

N/A
(Former name or former address, if changed since last report.)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

o Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
o Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
o Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
o Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

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In this report, Ardea, we, us and our refer to Ardea Biosciences, Inc. and its wholly-owned subsidiary, unless the context otherwise provides.

Item 2.02. Results of Operations and Financial Condition.

On January 19, 2011, we filed with the Securities and Exchange Commission, or SEC, a prospectus supplement to our Registration Statement on Form S-3 (File No. 333-170105), which included the following preliminary financial information as of December 31, 2010:

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 in greater detail below. 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.

Item 8.01. Other Events.

We are filing the following information with the SEC for the purpose of updating certain aspects of our publicly disclosed description of our business:

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 URAT 1 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 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.

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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 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 treatment of 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. 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.

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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.

Forward-Looking Statements

Statements contained in this report regarding matters that are not historical facts are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Because such statements are subject to risks and uncertainties, actual results may differ materially from those expressed or implied by such forward-looking statements. Such statements include, but are not limited to, statements regarding the safety and efficacy of our product candidates; our expectations regarding the ability to utilize our product candidates in combination with existing sUA lowering agents; the progress, timing and results of clinical trials and research and development efforts involving our product candidates; 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 and planned products; and our estimated cash, cash equivalents and short-term investments, available for sale. Risks that contribute to the uncertain nature of the forward-looking statements include, among others, risks related to the outcome of preclinical and clinical studies, risks related to regulatory approvals, delays in commencement of preclinical and clinical studies, costs associated with our drug discovery and development programs, risks related to the outcome of our business development activities, including collaboration or license agreements, and risks related to changes in estimated financial amounts based on the completion of our ongoing audit. These and other risks and uncertainties are described more fully under the headings Risk Factors in our most recently filed SEC documents, including our Annual Report on Form 10-K and our Quarterly Reports on Form 10-Q. All forward-looking statements contained in this report speak only as of the date on which they were made. Ardea undertakes no obligation to update such statements to reflect events that occur or circumstances that exist after the date on which they were made.

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SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

ARDEA BIOSCIENCES, INC.

Date: January 19, 2011

/s/ Christian Waage
Christian Waage
General Counsel