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 the earliest event reported): December 20, 2006

NEUROCRINE BIOSCIENCES, INC.

(Exact name of registrant as specified in its charter)

Delaware(State or other jurisdiction of incorporation or organization)

0-22705 (Commission File Number)

33-0525145 (IRS Employer Identification No.)

12790 El Camino Real (Address of principal executive offices)

92130 (Zip Code)

Registrant's telephone number, including area code: (858) 617-7600

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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ITEM 8.01 OTHER EVENTS.

On December 20, 2006, the Company announced that under the collaboration between Neurocrine and GlaxoSmithKline (GSK), GSK has initiated Phase II "proof of concept" clinical trials with a lead Corticotropin Releasing Factor R₁ (CRF₁) receptor antagonist compound for two indications, social anxiety disorder (SocAD) and irritable bowel syndrome (IBS). As a result, the Company has recognized an \$8 million milestone payment from GSK upon initiation of these two Phase II clinical trials.

Item 9.01. Exhibits

99.1 Press release dated December 20, 2006.

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SIGNATURES

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

Dated: December 20, 2006 NEUROCRINE BIOSCIENCES, INC.

/s/ Timothy P. Coughlin

Timothy P. Coughlin

Vice President and Chief Financial Officer

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EXHIBIT INDEX

Exhibit Number 99.1

Document Description
Press release dated December 20, 2006

FOR IMMEDIATE RELEASE

Contact at Neurocrine Biosciences Elizabeth Foster (858) 617-7600

NEUROCRINE BIOSCIENCES ANNOUNCES INITIATION OF PHASE II CLINICAL TRIALS WITH CRF1 ANTAGONIST FOR ANXIETY AND IBS

COMPANY RECOGNIZES \$8 MILLION MILESTONE PAYMENT

San Diego, CA, December 20, 2006 — Neurocrine Biosciences, Inc. (NASDAQ:NBIX) announced today that under the collaboration between Neurocrine and GlaxoSmithKline (GSK), GSK has initiated Phase II "proof of concept" clinical trials with a lead Corticotropin Releasing Factor R₁ (CRF₁) receptor antagonist compound for two indications, social anxiety disorder (SocAD) and irritable bowel syndrome (IBS). As a result, Neurocrine has recognized an \$8 million milestone payment from GSK upon initiation of these two Phase II clinical trials.

The first "proof of concept" trial is a Phase II double-blind, randomized, placebo controlled, multiple dose study to evaluate the safety and efficacy of the CRF₁ antagonist compound in patients with SocAD. The four-arm study will include more than 200 adult subjects with Generalized Social Anxiety Disorder/Social Phobia. Efficacy, safety, tolerability and pharmacokinetics will be assessed. The clinical endpoints of the study include validated scales for assessment of anxiety disorders including the Leeds Situational Anxiety Scale and the Social Avoidance and Distress Scale and the Sheehan Disability Scale.

The second "proof of concept" trial is a Phase II double-blind, randomized, placebo controlled study to evaluate the safety and efficacy of this compound in patients with IBS. Approximately 100 patients meeting established diagnostic criteria for IBS will be entered into this cross-over design trial. Standard assessments of safety, tolerability and pharmacokinetics will be conducted. The clinical endpoints reflect change in symptom frequency and severity via validated scales for IBS.

"We are pleased to announce that GSK is advancing the collaboration's CRF1 antagonist into clinical development in two important therapeutic indications. This CRF1 antagonist lead compound was selected from a novel series of compounds discovered by GSK and Neurocrine, and based on a rigorous preclinical evaluation of safety and efficacy, as well as extensive pharmacokinetic and Phase I clinical evaluation, is now ready to determine proof of concept. CRF receptor antagonists offer a new class of drugs with a novel mechanism of action and the potential to improve the current treatment of mood disorders, IBS and various stress related disorders," said Kevin Gorman, Ph.D, Executive Vice President and Chief Operating Officer for Neurocrine Biosciences.

Neurocrine and GSK entered into a worldwide research, development and commercialization agreement in July 2001 for CRF₁ receptor antagonists to treat psychiatric, neurological and gastrointestinal diseases including anxiety, depression, and IBS. The CRF collaboration between Neurocrine and GSK has identified multiple unique high affinity and selective antagonists for the CRF₁ receptor. In addition to the lead CRF₁ receptor antagonist entering Phase II trials for SocAD and IBS, GSK has also advanced a back up CRF₁ receptor antagonist into a Phase I single dose study in the 1st Quarter of 2006 and this compound is now in a Phase I multi-dose study.

Background

The National Institutes of Mental Health has indicated that over 13% of the United States population has anxiety disorders and, according to Datamonitor, worldwide anxiety and depression therapeutic sales were \$16.7 billion in 2005. IBS is a gastrointestinal inflammatory disease that affects approximately 30 million people in the U.S., accounting for over \$25 billion in direct and indirect costs each year, according to the International Foundation for Functional Gastrointestinal Disorders.

Neurocrine Biosciences, Inc. is a biopharmaceutical company focused on neurological and endocrine diseases and disorders. Our product candidates address some of the largest pharmaceutical markets in the world including insomnia, anxiety, depression, irritable bowel syndrome, endometriosis and CNS related disorders. Neurocrine Biosciences, Inc. news releases are available through the Company's website via the Internet at http://www.neurocrine.com

In addition to historical facts, this press release may contain forward-looking statements that involve a number of risks and uncertainties. Among the factors that could cause actual results to differ materially from those indicated in the forward looking statements are risks and uncertainties associated with, or arising out of, drug discovery, pre-clinical and clinical development of products and specifically risk that the CRF receptor antagonists arising out of the GSK collaboration with Neurocrine may prove unsuitable for continued clinical development; risk that clinical trials will fail to demonstrate that CRF antagonists are safe and effective; uncertainties relating to patent protection for CRF receptor antagonists and intellectual property rights of third parties in the CRF field; impact of competitive products and technological changes that may limit demand for the products in the CRF field; and the other risks associated with Neurocrine as described in the Company's report on Form 10-K for the year ended December 31, 2005 and most recent report on Form 10-Q filed for the third quarter ended, September 30, 2006. Neurocrine undertakes no obligation to update the statements contained in this press release after the date hereof.