

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

FORM S-3
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

NEUROCRINE BIOSCIENCES, INC.

(Exact Name of Registrant as Specified in its Charter)

Delaware

(State or Other Jurisdiction of Incorporation or Organization)

33-0525145

(I.R.S. Employer Identification No.)

12790 El Camino Real
San Diego, CA 92130
(858) 617-7600

(Address, Including Zip Code and Telephone Number, Including
Area Code, of Registrant's Principal Executive Offices)

Gary A. Lyons
President and Chief Executive Officer
Neurocrine Biosciences, Inc.
12790 El Camino Real
San Diego, CA 92130
(858) 617-7600

(Name, Address, Including Zip Code and Telephone Number, Including
Area Code, of Agent for Service)

Copies to:

Margaret E. Valeur-Jensen, J.D., Ph.D.
Executive Vice President, General Counsel
and Corporate Secretary
Neurocrine Biosciences, Inc.
12790 El Camino Real
San Diego, CA 92130
(858) 617-7600

Jason L. Kent, Esq.
Cooley Godward Kronish LLP
4401 Eastgate Mall
San Diego, CA 92121
(858) 550-6000

Approximate date of commencement of proposed sale to the public: From time to time after this Registration Statement becomes effective.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement of the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

CALCULATION OF REGISTRATION FEE

| Title of Class of Securities to be Registered | Proposed Maximum Aggregate Offering Price (1) | Amount of Registration Fee (2) |
|------------------------------------------------|-----------------------------------------------|--------------------------------|
| Common Stock (par value \$0.001 per share) (3) | \$150,000,000 | \$4,605 |

- (1) The proposed maximum aggregate offering price will be determined from time to time by the registrant in connection with the issuance by the registrant of the common stock registered hereunder.
- (2) Calculated pursuant to Rule 457(o) under the Securities Act of 1933, as amended.
- (3) Pursuant to Rule 416 under the Securities Act of 1933, as amended, the shares being registered hereunder include such indeterminate number of shares of common stock as may be issuable with respect to the shares being registered hereunder as a result of stock splits, stock dividends or similar transactions.

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment that specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until the registration statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

The information contained in this prospectus is not complete and may be changed. These securities may not be sold until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

Subject to Completion, Dated November 2, 2007

PROSPECTUS

\$150,000,000



NEUROCRINE BIOSCIENCES, INC.

Common Stock

Our common stock is listed on the Nasdaq Global Select Market under the symbol "NBIX." On November 1, 2007, the last reported sale price of our common stock on the Nasdaq Global Select Market was \$9.25 per share.

This prospectus and the accompanying prospectus supplement will allow us to sell shares of our common stock over time in one or more offerings, with an aggregate offering price of up to \$150,000,000. Each time we offer shares of our common stock, 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 2 of this prospectus and as updated in our future filings made with the Securities and Exchange Commission, which are incorporated by reference in this prospectus.

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

The common stock 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 common stock 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 common stock and the net proceeds we expect to receive from such sale will also be set forth in a 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 is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is , 2007.

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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 Securities and Exchange Commission (SEC) using a “shelf” registration process. Under this shelf registration statement, we may sell shares of our common stock in one or more offerings up to a total dollar amount of \$150,000,000. This prospectus provides you with a general description of the common stock we may offer. 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.

SUMMARY

The following summary does not contain all the information that may be important to purchasers of our common stock. Prospective purchasers of our common stock should carefully review the entire prospectus, including the financial statements and other information incorporated by reference in this prospectus, before making an investment decision.

NEUROCRINE BIOSCIENCES, INC.

We discover, develop and intend to commercialize drugs for the treatment of neurological and endocrine-related diseases and disorders. Our product candidates address some of the largest pharmaceutical markets in the world, including insomnia, anxiety, depression, endometriosis, irritable bowel syndrome, pain, diabetes and other neurological and endocrine-related diseases and disorders. We currently have ten programs in various stages of research and development, including six programs in clinical development. While we independently develop many of our product candidates, we have entered into a collaboration for one of our programs. Our lead clinical development program, indiplon, is a drug candidate for the treatment of insomnia.

The following table summarizes our most advanced products currently in clinical development and those currently in research:

| Program | Target Indication | Status (1) | Commercial Rights |
|-------------------------------------------------------|---------------------------------------------------|-------------------|--------------------------------|
| Products under clinical development: | | | |
| Indiplon | Insomnia | Registration (2) | Neurocrine |
| GnRH Antagonist | Endometriosis | Phase II | Neurocrine |
| CRF R1 Antagonist (3) | Mood Disorders, Irritable Bowel Syndrome | Phase II | GlaxoSmithKline/ Neurocrine |
| CRF R2 Peptide Agonist — Urocortin 2 (3) | Cardiovascular | Phase II | Neurocrine |
| Selective norepinephrine reuptake inhibitor (sNRI) | Neuropathic Pain | Phase I | Neurocrine |
| GnRH Antagonist | Benign Prostatic Hyperplasia | Phase I | Neurocrine |
| Research: | | | |
| Glucose Dependent Insulin Secretagogues | Type II Diabetes | Research | Neurocrine |
| GnRH Antagonist | Endometriosis, Benign Prostatic Hyperplasia | Research | Neurocrine |
| Adenosine2A Receptor Antagonists | Parkinson's Disease | Research | Neurocrine/Almirall |
| Ion Channel Blocker | Chronic Pain | Research | Neurocrine |

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(1) “Registration” indicates that we or our collaborators have submitted a New Drug Application (NDA) to the U.S. Food and Drug Administration (FDA) for regulatory approval of the drug candidate. “Phase II” indicates that we or our collaborators are conducting clinical trials on groups of patients afflicted with a specific disease in order to determine preliminary efficacy, optimal dosages and expanded evidence of safety. “Phase I” indicates that we or our collaborators are conducting clinical trials with a smaller number of patients to determine early safety profile, maximally tolerated dose and pharmacological properties of the product in human volunteers. “Research” indicates identification and evaluation of compound(s) in laboratory and preclinical models.

(2) On May 15, 2006, we received two complete responses from the FDA regarding the indiplon capsule and tablet NDAs. These responses indicated that indiplon 5 mg and 10 mg capsules were approvable (FDA Approvable Letter) and that the 15 mg tablets were not approvable (FDA Not Approvable Letter).

The FDA Not Approvable Letter requested that we reanalyze certain safety and efficacy data and questioned the sufficiency of the objective sleep maintenance clinical data with the 15 mg tablet in view of the fact that the majority of the indiplon tablet studies were conducted with doses higher than 15 mg. We held an end-of-review meeting with the FDA related to the FDA Not Approvable Letter in October 2006. This meeting was specifically focused on determining the actions needed to bring indiplon tablets from Not Approvable to Approval in the resubmission of the NDA for indiplon tablets. The FDA has requested additional long-term safety and efficacy data with the 15 mg dose for the adult population and the development of a separate dose for the elderly population. In discussions, we and the FDA noted positive efficacy data for sleep maintenance with both indiplon capsules and tablets. On the basis of these discussions, we are formulating a strategy to pursue a sleep maintenance claim for indiplon. The evaluation of indiplon for sleep maintenance is ongoing and includes both indiplon capsules and tablets.

The FDA Approvable Letter requested that we reanalyze data from certain preclinical and clinical studies to support approval of indiplon 5 mg and 10 mg capsules for sleep initiation and middle of the night dosing. The FDA Approvable Letter also requested reexamination of the safety analyses. We held an end-of-review meeting with the FDA related to the FDA Approvable Letter in August 2006. This meeting was specifically focused on determining the actions needed to bring indiplon capsules from Approvable to Approval in the resubmission of the NDA for indiplon capsules. At the meeting the FDA requested that the resubmission include further analyses and modifications of analyses previously submitted to address questions raised by the FDA in the initial review. This reanalysis has been completed. The FDA also requested, and we have completed, a supplemental pharmacokinetic/food effect profile of indiplon capsules including several meal types.

On June 12, 2007, we resubmitted our NDA for indiplon 5 mg and 10 mg capsules seeking clearance to market indiplon capsules for the treatment of insomnia. The FDA accepted the NDA resubmission and established a Prescription Drug User Fee Act (PDUFA) date of December 12, 2007. The PDUFA action date is the date by which the FDA is expected to have completed its review of the resubmission and to document its assessment through the issuance of an action letter.

(3) “R1 and R2” refer to two CRF receptor subtypes.

We were originally incorporated in California in January 1992 and were reincorporated in the state of Delaware in May 1996. Our corporate offices are located at 12790 El Camino Real, San Diego, California 92130. Our telephone number is (858) 617-7600. Our website address is www.neurocrine.com. Information contained in our website does not constitute part of this prospectus.

Unless otherwise specified or required by context, references in this prospectus to “we,” “us,” “our” and “Neurocrine” refer to Neurocrine Biosciences, Inc. and our subsidiaries on a consolidated basis.

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 Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2007, as filed with the SEC on November 2, 2007, which is incorporated herein by reference in its entirety, as well as any amendment or update thereto reflected in subsequent filings with the SEC. 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.

FORWARD-LOOKING STATEMENTS

This prospectus, including the information incorporated by reference herein, and any applicable prospectus supplement including the documents we incorporate by reference therein, contain forward-looking statements that involve a number of risks and uncertainties. Although our forward-looking statements reflect the good faith judgment of our management, these statements can only be based on facts and factors currently known by us. Consequently, these forward-looking statements are inherently subject to risks and uncertainties, and actual results and outcomes may differ materially from results and outcomes discussed in the forward-looking statements.

Forward-looking statements can be identified by the use of forward-looking words such as “believes,” “expects,” “hopes,” “may,” “will,” “plan,” “intends,” “estimates,” “could,” “should,” “would,” “continue,” “seeks,” “pro forma,” or “anticipates,” or other similar words (including their use in the negative), or by discussions of future matters such as the development of new products, technology enhancements, possible changes in legislation and other statements that are not historical. These statements include but are not limited to statements under the captions “Business,” “Risk Factors” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and in other sections incorporated by reference from our Annual Report on Form 10-K and Quarterly Reports on Form 10-Q, as applicable, as well as our other filings with the SEC. You should be aware that the occurrence of any of the events discussed under the heading “Risk Factors” above and in any applicable prospectus supplement and any documents incorporated by reference herein or therein could substantially harm our business, results of operations and financial condition and that if any of these events occurs, the trading price of our common stock could decline and you could lose all or a part of the value of your common stock.

The cautionary statements made in this prospectus are intended to be applicable to all related forward-looking statements wherever they may appear in this prospectus or in any prospectus supplement or any documents incorporated by reference herein or therein. We urge you not to place undue reliance on these forward-looking statements, which speak only as of the date they are made. Except as required by law, we assume no obligation to update our forward-looking statements, even if new information becomes available in the future.

USE OF PROCEEDS

Except as described in any prospectus supplement, we currently intend to use the net proceeds from the sale of our common stock under this prospectus for general corporate purposes, including the clinical and preclinical development of our drug candidates, research and development expenses, general and administrative expenses, manufacturing expenses, and potential acquisitions of companies and technologies that complement our business. When shares of our common stock are offered, the prospectus supplement relating thereto will set forth our intended use for the net proceeds we receive from the sale of such shares. Pending the application of the net proceeds, we expect to invest the proceeds in short-term, interest-bearing instruments or other investment-grade securities.

DESCRIPTION OF CAPITAL STOCK

As of the date of this prospectus, our restated certificate of incorporation, as amended, authorizes us to issue 110,000,000 shares of common stock, par value \$0.001 per share, and 5,000,000 shares of preferred stock, par value \$0.001 per share. As of October 25, 2007, 37,996,885 shares of common stock were outstanding and no shares of preferred stock were outstanding.

The following summary describes the material terms of our capital stock. The description of capital stock is qualified by reference to our restated certificate of incorporation, as amended and our bylaws, as amended, which are incorporated by reference as exhibits into the registration statement of which this prospectus is a part.

Common Stock

Voting. Common stockholders are entitled to one vote per share for the election of directors and on all other matters that require stockholder approval, and do not have cumulative voting rights.

Dividends and Other Distributions. Subject to any preferential rights of outstanding preferred stock, if any, holders of our common stock are entitled to share ratably in any dividends declared by our board of directors on the common stock and paid out of funds legally available for such dividends.

Distribution on Dissolution. Subject to any preferential rights of outstanding preferred stock, if any, in the event of our liquidation, dissolution or winding up, holders of our common stock are entitled to share ratably in any assets remaining after payment of liabilities and the liquidation preferences of any outstanding preferred stock.

Other Rights. Our common stock does not carry any preemptive rights enabling a holder to subscribe for, or receive shares of, any class of our common stock or any other securities convertible into shares of any class of our common stock. There are no redemption rights or sinking fund provisions applicable to our common stock.

Preferred Stock

We currently have no outstanding shares of preferred stock. Under our restated certificate of incorporation, as amended, our board of directors is authorized to issue shares of our preferred stock from time to time, in one or more classes or series, without stockholder approval. Prior to the issuance of shares of each series, the board of directors is required by the Delaware General Corporation Law (DGCL), and our restated certificate of incorporation, as amended, to adopt resolutions and file a certificate of designation with the Secretary of State of the State of Delaware. The certificate of designation would fix for each class or series the designations, powers, preferences, rights, qualifications, limitations and restrictions, including the following:

- the number of shares constituting each class or series;
- voting rights;
- rights and terms of redemption, including sinking fund provisions;
- dividend rights and rates;
- dissolution;

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- terms concerning the distribution of assets;
- conversion or exchange terms;
- redemption prices; and
- liquidation preferences.

Any future issuance of additional preferred stock could adversely affect the voting power of holders of common stock and reduce the likelihood that common stockholders will receive dividend payments and payments upon liquidation. Such an issuance could have the effect of decreasing the market price of the common stock. Such an issuance also could have the effect of delaying, deterring or preventing a change in control of us.

Anti-Takeover Provisions

Delaware Law. We are subject to the provisions of Section 203 of the DGCL. In general, Section 203 prohibits a publicly held Delaware corporation from engaging in a “business combination” with an “interested stockholder” for a period of three years after the date of the transaction in which the person became an interested stockholder. Generally, a “business combination” includes a merger, asset sale or other transaction resulting in a financial benefit to the stockholder. An “interested stockholder” is a person who either owns 15% or more of our outstanding voting stock or, together with affiliates and associates, owns or, within three prior years, did own, 15% or more of our outstanding voting stock. These restrictions do not apply if:

- before the date that the person became an “interested stockholder,” our board of directors approved either the “business combination” or the transaction which makes the person an “interested stockholder”;
- the “interested stockholder” owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the number of shares outstanding (i) shares owned by persons who are directors and also officers and (ii) shares owned by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- on or after the date that the person became an “interested stockholder,” the business combination is approved by (i) our board of directors and (ii) authorized at an annual or special meeting of our stockholders by the affirmative vote of at least 66 2/3% of our outstanding voting stock that is not owned by the “interested stockholder.”

The statute could have the effect of delaying, deferring, or preventing a change in control.

Bylaw and Certificate of Incorporation Provisions. Our bylaws, as amended, provide that special meetings of our stockholders may be called by our board of directors, the chairman of our board of directors, our President or by one or more stockholders holding 10% of the votes entitled to be cast at that meeting. Our restated certificate of incorporation, as amended, (i) provides for a board comprised of three classes of directors with each class serving a staggered three-year term, (ii) authorizes our board of directors to issue preferred stock from time to time, in one or more classes or series, without stockholder approval, (iii) requires the approval of at least two-thirds of the outstanding voting stock to amend certain provisions of our restated certificate of incorporation, as amended, and our bylaws, as amended and (iv) does not include a provision for cumulative voting for directors. Under cumulative voting, a minority stockholder holding a sufficient percentage of a class

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of shares may be able to ensure the election of one or more directors. These and other provisions contained in our restated certificate of incorporation, as amended, and bylaws, as amended, could delay or discourage transactions involving an actual or potential change in control of us or our management, including transactions in which stockholders might otherwise receive a premium for their shares over then current prices. Such provisions could also limit the ability of stockholders to remove current management or approve transactions that stockholders may deem to be in their best interests and could adversely affect the price of our common stock.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is American Stock Transfer & Trust Company. The transfer agent and registrar's address is 59 Maiden Lane, New York, New York 10038.

Listing on the Nasdaq Global Select Market

Our common stock is listed on the Nasdaq Global Select Market under the symbol "NBIX."

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

- the name or names of any underwriters, dealers or agents;
- the amounts of common stock 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.

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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.

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 of 1933, as amended, 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 over-allotment, stabilizing transactions, short covering transactions and penalty bids in accordance with Regulation M under the Exchange Act of 1934. Over-allotment 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, if possible. 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.

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

LEGAL MATTERS

The validity of the common stock being offered hereby will be passed upon by Cooley Godward Kronish LLP, San Diego, California.

EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our consolidated financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2006, and management's assessment of the effectiveness of our internal control over financial reporting as of December 31, 2006, as set forth in their reports, which are incorporated by reference in this prospectus and elsewhere in the registration statement. Our financial statements and management's assessment are incorporated by reference in reliance on Ernst & Young LLP's reports, given on their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and special reports, proxy statements and other information with the SEC. You may read and copy any document we file at the SEC's public reference room at 450 Fifth Street, N.W., Washington, D.C., 20549. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the public reference room. Our SEC filings are also available to the public at the SEC's website at <http://www.sec.gov>.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to "incorporate by reference" the information we file with them, which means that we can disclose important information to you by referring you to those documents instead of having to repeat the information in this prospectus. The information incorporated by reference is considered to be part of this prospectus, and later information that we file with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below and any future filings we will make with the SEC under Sections 13(a), 13(c), 14, or 15(d) of the Exchange Act of 1934 after the date of this prospectus until the termination of the offering of common stock covered by this prospectus (other than information furnished under Item 2.02 or Item 7.01 of Form 8-K):

- our annual report on Form 10-K for the year ended December 31, 2006 (filed on February 9, 2007), including all information incorporated by reference therein;
- our quarterly reports on Form 10-Q for the quarterly periods ended March 31, 2007 (filed on May 7, 2007), June 30, 2007 (filed on August 3, 2007), and September 30, 2007 (filed on November 2, 2007);
- our current reports on Form 8-K filed on January 16, 2007, January 23, 2007, February 21, 2007, May 31, 2007, June 6, 2007, June 13, 2007, August 22, 2007, October 26, 2007 and November 1, 2007;

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- the description of our common stock contained in our registration statement on Form 8-A, filed on April 3, 1996, including any amendment or reports filed for the purpose of updating such description; and
- all filings we make with the SEC pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act of 1934 after the date of this prospectus and before the termination of this offering.

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

Neurocrine Biosciences, Inc.
12790 El Camino Real
San Diego, CA 92130
(858) 617-7600
Attn: Investor Relations

This prospectus is part of a registration statement we filed with the SEC. That registration statement and the exhibits filed along with the registration statement contain more information about us. Because information about documents referred to in this prospectus is not always complete, you should read the full documents which are filed as exhibits to the registration statement. You may read and copy the full registration statement and its exhibits at the SEC's public reference rooms or its website.

\$150,000,000

COMMON STOCK

NEUROCRINE BIOSCIENCES, INC.

PROSPECTUS

_____, 2007

PART II
INFORMATION NOT REQUIRED IN THE PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution.

The following table sets forth the estimated costs and expenses, all of which shall be borne by us, in connection with the offering of the common stock pursuant to this registration statement:

| | |
|-------------------------|------------|
| Registration Fee | \$ 4,605 |
| Legal Fees and Expenses | \$100,000* |
| Accounting Fees | \$100,000* |
| Printer Fees | \$ 50,000* |
| Miscellaneous | \$ 25,000* |
| Total | \$279,605* |

* Estimated

Item 15. Indemnification of Directors and Officers.

Section 145 of the Delaware General Corporation Law (the “DGCL”) generally allows us to indemnify directors and officers for all expenses, judgments, fines and amounts in settlement actually paid and reasonably incurred in connection with any proceedings so long as such party acted in good faith and in a manner reasonably believed to be in or not opposed to our best interests and, with respect to any criminal proceedings, if such party had no reasonable cause to believe his or her conduct to be unlawful. Indemnification may only be made by us if the applicable standard of conduct set forth in Section 145 has been met by the indemnified party upon a determination made (i) by our board of directors by a majority vote of the directors who are not parties to such proceedings, even though less than a quorum, (ii) if there are no such directors, or if such directors so direct, by independent legal counsel in a written opinion or (iii) by the stockholders.

Our bylaws provide for indemnification of our directors and officers to the fullest extent permitted by law.

Section 102(b)(7) of the DGCL provides that a certificate of incorporation may include a provision which eliminates or limits the personal liability of a director to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, except for liability (i) for any breach of the director’s duty of loyalty to the company or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of the DGCL, relating to prohibited dividends or distributions or the repurchase or redemption of stock or (iv) for any transaction from which the director derives an improper personal benefit. Our certificate of incorporation includes such a provision. As a result of this provision, we and our stockholders may be unable to obtain monetary damages from a director for breach of his or her duty of care.

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Insofar as indemnification for liabilities under the Securities Act of 1933, as amended, may be permitted to our directors, officers or controlling persons pursuant to the foregoing provisions, we have been informed that in the opinion of the SEC such indemnification is against public policy as expressed in such Act and is therefore unenforceable.

Item 16. Exhibits.

| <u>Exhibits:</u> | <u>Description</u> |
|------------------|----------------------------------------------------------------------------------------------|
| 3.1 | Restated Certificate of Incorporation of Neurocrine Biosciences, Inc. (1) |
| 3.2 | Certificate of Amendment to Certificate of Incorporation of Neurocrine Biosciences, Inc. (2) |
| 3.3 | Bylaws of Neurocrine Biosciences, Inc. (1) |
| 3.4 | Certificate of Amendment of Bylaws of Neurocrine Biosciences, Inc. (3) |
| 3.5 | Certificate of Amendment of Bylaws of Neurocrine Biosciences, Inc. (4) |
| 4.1 | Form of Common Stock Certificate (1) |
| 5.1 | Opinion of Cooley Godward Kronish LLP |
| 23.1 | Consent of Cooley Godward Kronish LLP (included as Exhibit 5.1 to this filing) |
| 23.2 | Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm |
| 24.1 | Power of Attorney (included on the signature page hereto) |

-
- (1) Incorporated by reference to the Company's Registration Statement on Form S-1 (Registration No. 333-03172)
 - (2) Incorporated by reference to the Company's Quarterly Report on Form 10-Q filed on August 9, 2006
 - (3) Incorporated by reference to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 1997 filed on April 10, 1998
 - (4) Incorporated by reference to the Company's Quarterly Report on Form 10-Q filed on August 9, 2004

Item 17. Undertakings.

The undersigned registrant hereby undertakes:

- (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

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- (i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;
- (ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and
- (iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

provided, however, that the undertakings set forth in paragraphs (1)(i), (1)(ii) and (1)(iii) above do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the SEC by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement or is contained in a form of prospectus filed pursuant to Rule 424(b) that is a part of the registration statement.

- (2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
- (4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:
 - (i) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and
 - (ii) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the

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first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.

- (5) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities, the undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:
- (i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;
 - (ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;
 - (iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and
 - (iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.
- (6) That, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (7) That, for purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act of 1933 shall be deemed to be part of this registration statement as of the time it was declared effective.

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- (8) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers, and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act of 1933 and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer, or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer, or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act of 1933 and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of San Diego, State of California, on November 2, 2007.

NEUROCRINE BIOSCIENCES, INC.

By: /s/ GARY A. LYONS

Gary A. Lyons, President and Chief
Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints GARY A. LYONS and TIMOTHY P. COUGHLIN, and each or either of them, his true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for him and in his name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement on Form S-3, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or any of them, or their or his substitutes or substitute, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement on Form S-3 has been signed by the following persons in the capacities and on the dates indicated.

| Signature | Title | Date |
|-----------------------------------------------------------------|---------------------------------------------------------------------------------------------------|------------------|
| <u>/s/ GARY A. LYONS</u> Gary A. Lyons | President, Chief Executive Officer and Director <i>(Principal Executive Officer)</i> | November 2, 2007 |
| <u>/s/ TIMOTHY P. COUGHLIN</u> Timothy P. Coughlin | Vice President and Chief Financial Officer <i>(Principal Financial and Accounting Officer)</i> | November 2, 2007 |
| <u>/s/ JOSEPH A. MOLLICA, PH.D.</u> Joseph A. Mollica, Ph.D. | Chairman of the Board of Directors | November 2, 2007 |
| <u>/s/ CORINNE H. LYLE</u> Corinne H. Lyle | Director | November 2, 2007 |
| <u>/s/ RICHARD F. POPS</u> Richard F. Pops | Director | November 2, 2007 |
| <u>/s/ STEPHEN A. SHERWIN, M.D.</u> Stephen A. Sherwin, M.D. | Director | November 2, 2007 |
| <u>/s/ WYLIE W. VALE, PH.D.</u> Wylie W. Vale, Ph.D. | Director | November 2, 2007 |
| <u>/s/ W. THOMAS MITCHELL</u> W. Thomas Mitchell | Director | November 2, 2007 |

EXHIBIT INDEX

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Jason L. Kent
(858) 550-6044
jkent@cooley.com

November 2, 2007

Neurocrine Biosciences, Inc.
12790 El Camino Real
San Diego, CA 92130

Ladies and Gentlemen:

We have acted as counsel to Neurocrine Biosciences, Inc., a Delaware corporation (the "**Company**"), in connection with the Registration Statement on Form S-3 (the "**Registration Statement**") to be filed by the Company under the Securities Act of 1933, as amended (the "**Securities Act**"). The Company has provided us with a prospectus (the "**Prospectus**"), which forms part of the Registration Statement. The Prospectus provides that it will be supplemented in the future by one or more prospectus supplements (each, a "**Prospectus Supplement**"). The Registration Statement, including the Prospectus as supplemented from time to time by one or more Prospectus Supplements, will provide for the registration by the Company of shares of common stock, par value \$0.001 per share, of the Company (the "**Common Stock**"). The Common Stock is being registered for offering and sale from time to time pursuant to Rule 415 under the Securities Act. The aggregate public offering price of the Common Stock being registered will be \$150,000,000.

In connection with this opinion, we have examined and relied upon the originals, or copies certified to our satisfaction, of such records, documents, certificates and other instruments as in our judgment are necessary or appropriate to enable us to render the opinion expressed below. As to certain factual matters, we have relied upon certificates of an officer of the Company and have not sought to independently verify such matters.

In rendering this opinion, we have assumed the genuineness and authenticity of all signatures on original documents; the authenticity of all documents submitted to us as originals; the conformity to originals of all documents submitted to us as copies; the accuracy, completeness and authenticity of certificates of public officials; and the due authorization, execution and delivery of all documents, where authorization, execution and delivery are prerequisites to the effectiveness of such documents. We have also assumed that, at the time of issuance and sale, a sufficient number of shares of Common Stock will be authorized and reserved or available for issuance and that the consideration for the issuance and sale of the Common Stock will be cash in an amount that is not less than the par value of the Common Stock.

Our opinion herein is expressed solely with respect to the General Corporation Law of the State of Delaware. Our opinion is based on these laws as in effect on the date hereof. We express no opinion as to whether the laws of any jurisdiction are applicable to the subject matter hereof. We are not rendering any opinion as to compliance with any federal or state law, rule or regulation relating to securities, or to the sale or issuance thereof.

4401 EASTGATE MALL, SAN DIEGO, CA 92121 T: (858) 550-6000 F: (858) 550-6420 WWW.COOLEY.COM

November 2, 2007

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On the basis of the foregoing and in reliance thereon, and subject to the qualifications herein stated, we are of the opinion that provided that (i) the Registration Statement and any required post-effective amendment thereto have all become effective under the Securities Act and the Prospectus and any and all Prospectus Supplement(s) required by applicable laws have been delivered or deemed to be delivered as required by such laws; (ii) the issuance of the Common Stock has been duly authorized by all necessary corporate action on the part of the Company; (iii) the issuance and sale of the Common Stock does not violate any applicable law or the Company's Certificate of Incorporation or Bylaws, each as amended, or result in a default under or breach of any agreement or instrument binding upon the Company, and complies with any applicable requirement or restriction imposed by any court or governmental body having jurisdiction over the Company; and (iv) the certificates for the Common Stock have been duly executed by the Company, countersigned by the transfer agent therefor and duly delivered to the purchasers thereof against payment therefor, then the Common Stock, when issued and sold as contemplated in the Registration Statement, the Prospectus and the related Prospectus Supplement(s) and in accordance with any applicable duly authorized, executed and delivered purchase, underwriting or similar agreement, will be duly authorized, validly issued, fully paid and nonassessable.

We hereby consent to the filing of this opinion as an exhibit to the Registration Statement and to the reference to our firm under the caption "Legal Matters" in the Prospectus which forms part of the Registration Statement. This opinion is expressed as of the date hereof, and we disclaim any undertaking to advise you of any subsequent changes in the facts stated or assumed herein or of any subsequent changes in applicable law.

Very truly yours,

Cooley Godward Kronish LLP

By: /s/ Jason L. Kent

Jason L. Kent

4401 EASTGATE MALL, SAN DIEGO, CA 92121 T: (858) 550-6000 F: (858) 550-6420 WWW.COOLEY.COM

Consent of Independent Registered Public Accounting Firm

We consent to the reference to our firm under the caption “Experts” in this Registration Statement (Form S-3) and related Prospectus of Neurocrine Biosciences, Inc. for the registration of its common stock and to the incorporation by reference therein of our reports dated February 2, 2007 with respect to the consolidated financial statements of Neurocrine Biosciences, Inc., and Neurocrine Biosciences, Inc.’s management’s assessment of the effectiveness of internal control over financial reporting, and the effectiveness of internal control over financial reporting of Neurocrine Biosciences, Inc., included in the Annual Report (Form 10-K) for the year ended December 31, 2006, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

San Diego, California
October 29, 2007