NEUROCRINE BIOSCIENCES INC Form SC 13G December 20, 2007

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UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549 SCHEDULE 13G Under the Securities Exchange Act of 1934 (Amendment No. _____)* NEUROCRINE BIOSCIENCES, INC.

(Name of Issuer) Common Stock, par value \$0.001 per share

> (Title of Class of Securities) 64125C109

(CUSIP Number) December 13, 2007

(Date of Event Which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

- o Rule 13d-1(b)
- þ Rule 13d-1(c)
- o Rule 13d-1(d)

*The remainder of this cover page shall be filled out for a reporting person s initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be filed for the purpose of Section 18 of the Securities Exchange Act of 1934 (*Act*) or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

CUSIP No. 64125C109

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1 NAMES OF REPORTING PERSONS RA Capital Management, LLC

CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS)

2

- (a) o
 - (b) o

SEC USE ONLY

3

CITIZENSHIP OR PLACE OF ORGANIZATION

4

Delaware

5	5	SOLE VOTING POWER
NUMBER OF		1,955,000
SHARES BENEFICIALLY	~ 6	SHARED VOTING POWER
OWNED BY		0
EACH REPORTING	7	SOLE DISPOSITIVE POWER
PERSON		1,955,000
WITH:	8	SHARED DISPOSITIVE POWER
		0

AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

1,955,000

CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS)

0

PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)

11

10

5.1%

TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)

12

IA

CUSIP No. 64125C109

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1 NAMES OF REPORTING PERSONS Richard H. Aldrich

CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS)

2

- (a) o
 - (b) o

SEC USE ONLY

3

CITIZENSHIP OR PLACE OF ORGANIZATION

4

USA

	5	SOLE VOTING POWER
NUMBER OF		0
SHARES	6	SHARED VOTING POWER
BENEFICIALLY OWNED BY	U	1,955,000
EACH	7	SOLE DISPOSITIVE POWER
REPORTING PERSON	8	0
WITH:		SHARED DISPOSITIVE POWER
		1,955,000

AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

1,955,000

CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS)

0

PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)

11

10

5.1%

TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)

12

IN

CUSIP No. 64125C109

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1 NAMES OF REPORTING PERSONS Peter Kolchinsky

CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS)

2

- (a) o
 - (b) o

SEC USE ONLY

3

CITIZENSHIP OR PLACE OF ORGANIZATION

4

USA

	5	SOLE VOTING POWER
NUMBER OF	2	0
SHARES BENEFICIALLY	6	SHARED VOTING POWER
OWNED BY		1,955,000
EACH REPORTING	7	SOLE DISPOSITIVE POWER
PERSON	8	0
WITH:		SHARED DISPOSITIVE POWER
		1,955,000

AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

1,955,000

CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS)

0

PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)

11

10

5.1%

TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)

12

IN

CUSIP No. 64125C109

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1 NAMES OF REPORTING PERSONS RA Capital Biotech Fund, L.P.

CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS)

2

- (a) o
 - (b) o

SEC USE ONLY

3

CITIZENSHIP OR PLACE OF ORGANIZATION

4

Delaware

	5	SOLE VOTING POWER
NUMBER OF		1,929,585
SHARES BENEFICIALLY	6	SHARED VOTING POWER
OWNED BY	U	0
EACH REPORTING	7	SOLE DISPOSITIVE POWER
PERSON		1,929,585
WITH:	8	SHARED DISPOSITIVE POWER
		0

AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

1,929,585

CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS)

0

PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)

11

10

5.0%

TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)

12

PN

CUSIP No. 64125C109

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1 NAMES OF REPORTING PERSONS RA Capital Biotech Fund II, L.P.

CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS)

2

- (a) o
 - (b) o

SEC USE ONLY

3

CITIZENSHIP OR PLACE OF ORGANIZATION

4

Delaware

	5	SOLE VOTING POWER
NUMBER OF		25,415
SHARES	6	SHARED VOTING POWER
BENEFICIALLY OWNED BY	U	0
EACH REPORTING	7	SOLE DISPOSITIVE POWER
PERSON		25,415
WITH:	8	SHARED DISPOSITIVE POWER
		0

AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

25,415

CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS)

0

PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)

11

10

.1%

TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)

12

PN

CUSIP No. 64125C109

Item 1.

(a) Name of Issuer: Neurocrine Biosciences, Inc. (the Issuer).

(b) Address of the Issuer s Principal Executive Offices: 12790 El Camino Real, San Diego, CA 92130. Item 2.

(a) **Name of Person Filing:** This joint statement on Schedule 13G is being filed by Richard H. Aldrich, Peter Kolchinsky, RA Capital Management, LLC, RA Capital Biotech Fund, L.P. and RA Capital Biotech Fund II, L.P., who are collectively referred to herein as the Reporting Persons. Mr. Aldrich and Mr. Kolchinsky (together, the

Managers) are the managers of RA Capital Management, LLC (Capital), which is the sole general partner of each of RA Capital Biotech Fund, L.P. (Fund I) and RA Capital Biotech Fund II, L.P. (Fund II). The Reporting Persons have entered into a Joint Filing Agreement, dated as of the date hereof, a copy of which is filed with this Schedule 13G as <u>Exhibit 1</u> (which is incorporated herein by reference), pursuant to which the Reporting Persons have agreed to file this statement jointly in accordance with the provisions of Rule 13d-1(k) under the Act.

(b) Address of Principal Business Office: The principal business office of the Reporting Persons with respect to the shares reported hereunder is 111 Huntington Avenue, Suite 610, Boston, MA 02199.

(c) **Citizenship:** Capital is a Massachusetts limited liability company. Each of Fund I and Fund II is a Delaware limited partnership. The Managers are U.S. citizens.

(d) Title and Class of Securities: Common stock, par value \$0.001 per share (Common Stock)

(e) CUSIP Number: 64125C109

Item 3. If this statement is filed pursuant to §§240.13d-1(b) or 240.13d-2(b) or (c), check whether the person filing is a:

Not applicable

Item 4. Ownership

In the aggregate, the Reporting Persons beneficially own 1,955,000 shares of the Common Stock of the Issuer, representing approximately 5.1% of such class of securities. The beneficial ownership of each Reporting Person is as follows: (i) Fund I beneficially owns 1,929,585 shares of Common Stock representing approximately 5.0% of the class, (ii) Fund II beneficially owns 25,415 shares of Common Stock representing approximately .1% of the class and (iii) Capital, as the sole general partner of each of Fund I and Fund II, and Mr. Aldrich and Mr. Kolchinsky as the managers of Capital, each beneficially own 1,955,00 shares of Common Stock of the Issuer representing approximately 5.1% of the class. The percentage of the Common Stock beneficially owned by each Reporting Person is based on a total of 38,268,679 shares of Common Stock of

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the Issuer outstanding as of November 28, 2007, representing the number of shares outstanding as reported in the Final Prospectus filed on December 3, 2007 pursuant to Rule 424(b)(3) under the Securities Act of 1933, as amended. Each of Fund I and Fund II has the power to vote and dispose of the shares of Common Stock beneficially owned by such entity (as described above). Capital, as the sole general partner of each of Fund I and Fund II, has the sole authority to vote and dispose of all of the shares of Common Stock reported in this Schedule 13G. The Managers, by virtue of their position as managers of Capital, have the shared authority to vote and dispose of all of the shares of Common Stock reported in this joint statement Schedule 13G.

Item 5. Ownership of Five Percent or Less of a Class

Not applicable

Item 6. Ownership of More than Five Percent on Behalf of Another Person

Not applicable

Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on By the Parent Holding Company or Control Person

Not applicable

Item 8. Identification and Classification of Members of the Group

Not applicable

Item 9. Notice of Dissolution of Group

Not applicable

Item 10. Certification

By signing below I hereby certify that, to the best of my knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

CUSIP No. 64125C109

Signature

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

DATE:	December 20, 2007
RA CAF	PITAL BIOTECH FUND, L.P.
By:	/s/ Richard H. Aldrich
Richard Manager	H. Aldrich
RA CAP	PITAL BIOTECH FUND II, L.P.
By:	/s/ Richard H. Aldrich
Richard Manager	H. Aldrich
RA CAF	PITAL MANAGEMENT, LLC
By:	/s/ Richard H. Aldrich
Richard Manager	H. Aldrich
RICHAI	RD H. ALDRICH
/s/ Richa	rd H. Aldrich
PETER	KOLCHINSKY
/s/ Peter	Kolchinsky

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