NEUROCRINE BIOSCIENCES INC Form SC 13G/A February 10, 2010

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

SCHEDULE 13G (Rule 13d-102)

# INFORMATION TO BE INCLUDED IN STATEMENTS FILED PURSUANT TO RULES 13d-1(b), (c), AND (d) AND AMENDMENTS THERETO FILED PURSUANT TO RULE 13d-2(b)

(Amendment No. 4)1

Neurocrine Biosciences, Inc. (Name of Issuer)

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

64125C109 (CUSIP Number)

December 31, 2009 (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)
- x Rule 13d-1(c)
- o Rule 13d-1(d)

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).

<sup>1</sup> 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.

1	NAME OF RE	PORTING PERS	ON	
2 3	Biotechnology Value Fund, L.P. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (b) o SEC USE ONLY			
4	CITIZENSHIP OR PLACE OF ORGANIZATION			
NUMBER OF	Delaware	5	SOLE VOTING POWER	
SHARES BENEFICIALLY OWNED BY EACH		6	0 shares SHARED VOTING POWER	
REPORTING PERSON WITH		7	1,454,547 SOLE DISPOSITIVE POWER	
		8	0 shares SHARED DISPOSITIVE POWE	R
9	AGGREGATE	AMOUNT BEN	1,454,547 EFICIALLY OWNED BY EACH	REPORTING PERSON
10	1,454,547 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) " EXCLUDES CERTAIN SHARES			
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)			
12	3.3% TYPE OF REPORTING PERSON			
	PN			
2				

1	NAME OF REPORTING PERSON		
2	Biotechnology Value Fund II, L.P. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (b) o SEC USE ONLY		
4	CITIZENSHIP OR PLACE OF ORGANIZATION		
	Delaware		
NUMBER OF SHARES	5	SOLE VOTING POWER	
BENEFICIALLY OWNED BY EACH	6	0 shares SHARED VOTING POWER	
REPORTING		999,000	
PERSON WITH	7	SOLE DISPOSITIVE POWER	
	8	0 shares SHARED DISPOSITIVE POWE	R
9	AGGREGATE AMOUNT BEN	999,000 EFICIALLY OWNED BY EACH	REPORTING PERSON
10	999,000 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) " EXCLUDES CERTAIN SHARES		
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)		
12	2.3% TYPE OF REPORTING PERSON		
	PN		
3			

1	NAME OF REI	PORTING PERS	ON	
2 3	BVF Investments, L.L.C. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (b) o SEC USE ONLY			
4	CITIZENSHIP OR PLACE OF ORGANIZATION			
NUMBER OF SHARES	Delaware	5	SOLE VOTING POWER	
BENEFICIALLY OWNED BY EACH		6	0 shares SHARED VOTING POWER	
REPORTING PERSON WITH		7	3,493,000 SOLE DISPOSITIVE POWER	
		8	0 shares SHARED DISPOSITIVE POWE	R
9	AGGREGATE	AMOUNT BEN	3,493,000 EFICIALLY OWNED BY EACH	REPORTING PERSON
10	3,493,000 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) " EXCLUDES CERTAIN SHARES			
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)			
12	7.9% TYPE OF REPORTING PERSON			
	OO			
4				

1	NAME OF REPORTING PERSON		
2 3	Investment 10, L.L.C. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (b) o SEC USE ONLY		
4	CITIZENSHIP OR PLACE OF ORGANIZATION		
NUMBER OF	Illinois 5	SOLE VOTING POWER	
SHARES BENEFICIALLY OWNED BY EACH	6	0 shares SHARED VOTING POWER	
REPORTING PERSON WITH	7	420,000 SOLE DISPOSITIVE POWE	R
	8	0 shares SHARED DISPOSITIVE PO	WER
9	AGGREGATE AMO	420,000 UNT BENEFICIALLY OWNED BY EA	.CH REPORTING PERSON
10	420,000 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) " EXCLUDES CERTAIN SHARES		
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)		
12	Less than 1% TYPE OF REPORTING PERSON		
	00		
5			

1	NAME OF REI	PORTING PERS	ON	
2 3	BVF Partners L.P. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (b) o SEC USE ONLY			
4	CITIZENSHIP OR PLACE OF ORGANIZATION			
NUMBER OF	Delaware	5	SOLE VOTING POWER	
SHARES BENEFICIALLY OWNED BY EACH		6	0 shares SHARED VOTING POWER	
REPORTING PERSON WITH		7	6,366,547 SOLE DISPOSITIVE POWER	
		8	0 shares SHARED DISPOSITIVE POWE	R
9	AGGREGATE	AMOUNT BEN	6,366,547 EFICIALLY OWNED BY EACH	REPORTING PERSON
10	6,366,547 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) " EXCLUDES CERTAIN SHARES			
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)			
12	14.5% TYPE OF REPORTING PERSON			
	PN, IA			
6				

1	NAME OF REPORTING PERSON			
2 3	BVF Inc. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP SEC USE ONLY (a) x (b) o			
4	CITIZENSHIP OR PLACE OF ORGANIZATION			
NUMBER OF	Delaware	5	SOLE VOTING POWER	
SHARES BENEFICIALLY OWNED BY		6	0 shares SHARED VOTING POWER	
EACH REPORTING PERSON WITH		7	6,366,547 SOLE DISPOSITIVE POWER	
		8	0 shares SHARED DISPOSITIVE POWE	R
9	AGGREGATE	AMOUNT BEN	6,366,547 EFICIALLY OWNED BY EACH	REPORTING PERSON
10	6,366,547 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) " EXCLUDES CERTAIN SHARES			
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)			
12	14.5% TYPE OF REPORTING PERSON			
	СО			
7				

1	NAME OF RE	PORTING PERS	ON	
2 3	Mark N. Lampert CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (b) o SEC USE ONLY			
4	CITIZENSHIP OR PLACE OF ORGANIZATION			
NUMBER OF	United States	5	SOLE VOTING POWER	
SHARES BENEFICIALLY OWNED BY EACH	,	6	0 shares SHARED VOTING POWER	
REPORTING PERSON WITH		7	6,366,547 SOLE DISPOSITIVE POWER	
		8	0 shares SHARED DISPOSITIVE POWE	R
9	AGGREGATE	AMOUNT BEN	6,366,547 EFICIALLY OWNED BY EACH	REPORTING PERSON
10	6,366,547 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) " EXCLUDES CERTAIN SHARES			
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)			
12	14.5% TYPE OF REPORTING PERSON			
	IN			
8				

CUSIP NO. 64125C109

Item 1(a). Name of Issuer:

Neurocrine Biosciences, Inc., a Delaware corporation (the "Issuer").

Item 1(b). Address of Issuer's Principal Executive Offices:

12780 El Camino Real San Diego, CA 92130

Item 2(a). Name of Person Filing

Item 2(b). Address of Principal Business Office or, if None, Residence

Item 2(c). Citizenship

Biotechnology Value Fund, L.P. ("BVF") 900 North Michigan Avenue, Suite 1100 Chicago, Illinois 60611 Citizenship: Delaware

Biotechnology Value Fund II, L.P. ("BVF2") 900 North Michigan Avenue, Suite 1100 Chicago, Illinois 60611 Citizenship: Delaware

BVF Investments, L.L.C. ("BVLLC") 900 North Michigan Avenue, Suite 1100 Chicago, Illinois 60611 Citizenship: Delaware

Investment 10, L.L.C. ("ILL10") 900 North Michigan Avenue, Suite 1100 Chicago, Illinois 60611 Citizenship: Illinois

BVF Partners L.P. ("Partners") 900 North Michigan Avenue, Suite 1100 Chicago, Illinois 60611 Citizenship: Delaware

BVF Inc.

900 North Michigan Avenue, Suite 1100 Chicago, Illinois 60611

Citizenship: Delaware

Mark N. Lampert ("Mr. Lampert") 900 North Michigan Avenue, Suite 1100 Chicago, Illinois 60611 Citizenship: United States

Each of the foregoing is referred to as a "Reporting Person" and collectively as the "Reporting Persons."

CUSIP NO.	64125C	109		
Item 2(d).			Title of Class of Securities:	
Common Ste	ock, par	value \$0.001 per s	share (the "Common Stock")	
Item 2(e).			CUSIP Number:	
64125C109				
Item 3. If Th	nis Staten	nent is Filed Pursu	nant to Rule 13d-1(b), or 13d-2(b) or (c)	), Check Whether the Person Filing is a:
			/x/	Not applicable.
(	(a)	//	Broker or dealer registered under Secti	on 15 of the Exchange Act.
	(b)	//	Bank as defined in Section 3(a)	)(6) of the Exchange Act.
(c	e)	// Inst	urance company as defined in Section 3	(a)(19) of the Exchange Act.
(d)	//	Investmen	t company registered under Section 8 of	f the Investment Company Act.
(	(e)	//	An investment adviser in accordance v	vith Rule 13d-1(b)(1)(ii)(E).
(f)	//	An employee ben	efit plan or endowment fund in accorda	ance with Rule 13d-1(b)(1)(ii)(F).
(g)	//	A parent holding	g company or control person in accordan	nce with Rule 13d-1(b)(1)(ii)(G).
(h)	//	A savings asso	ciation as defined in Section 3(b) of the	Federal Deposit Insurance Act.
		that is excluded mpany Act.	from the definition of an investment	company under Section 3(c)(14) of the
	(j)	//	Group, in accordance with	Rule 13d-1(b)(1)(ii)(J).
_			240.13d-1(b)(1)(ii)(K). If filing as a se specify the type of institution:	non-U.S. institution in accordance with
Item 4.			Ownership	
		(a)	Amount beneficie	ally owned:
(ii) BVF2 be	eneficial	ly owned 999,000	•	ned 1,454,547 shares of Common Stock C beneficially owned 3,493,000 shares of n Stock.

#### CUSIP NO. 64125C109

Partners, as the general partner of BVF and BVF2, the manager of BVLLC and the investment adviser of ILL10, may be deemed to beneficially own the 6,366,547 shares of Common Stock beneficially owned in the aggregate by BVF, BVF2, BVLLC and ILL10.

BVF Inc., as the general partner of Partners, may be deemed to beneficially own the 6,366,547 shares of Common Stock beneficially owned by Partners.

Mr. Lampert, as a director and officer of BVF Inc., may be deemed to beneficially own the 6,366,547 shares of Common Stock beneficially owned by BVF Inc.

The foregoing should not be construed in and of itself as an admission by any Reporting Person as to beneficial ownership of any shares of Common Stock owned by another Reporting Person. Each of Partners, BVF Inc. and Mr. Lampert disclaims beneficial ownership of the shares of Common Stock beneficially owned by BVF, BVF2, BVLLC and ILL10 and the filing of this statement shall not be construed as an admission that any such person or entity is the beneficial owner of any such securities.

(b) Percent of class:

Based on 43,991,565 shares of Common Stock outstanding,, which is based on information contained in the Prospectus Supplement filed by the Issuer pursuant to Rule 424(b)(5) with the Securities and Exchange Commission on December 17, 2009. As of the close of business on December 31, 2009, (i) BVF beneficially owned approximately 3.3% of the outstanding shares of Common Stock, (ii) BVF2 beneficially owned approximately 2.3% of the outstanding shares of Common Stock, (iii) BVLLC beneficially owned approximately 7.9% of the outstanding shares of Common Stock, (iv) ILL10 beneficially owned less than 1% of the outstanding shares of Common Stock and (v) each of Partners, BVF Inc. and Mr. Lampert may be deemed to beneficially own approximately 14.5% of the outstanding shares of Common Stock.

(c)	Number of shares as to which such person has:
(i)	Sole power to vote or to direct the vote
See Cover Pages Items 5-9.	
(ii)	Shared power to vote or to direct the vote
See Cover Pages Items 5-9.	
(iii)	Sole power to dispose or to direct the disposition of
See Cover Pages Items 5-9.	
(iv)	Shared power to dispose or to direct the disposition of
See Cover Pages Items 5-9.	
11	

CUSIP NO. 64125C109

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.

Pursuant to the operating agreement of BVLLC, Partners is authorized, among other things, to invest the contributed capital of Samana Capital, L.P., the majority member of BVLLC, in the shares of Common Stock and other securities of the Issuer and to vote, exercise or convert and dispose of each security, and is entitled to receive fees based on assets under management and, subject to certain exceptions, allocations based on realized and unrealized gains on such assets.

Partners, BVF Inc. and Mr. Lampert share voting and dispositive power over the shares of Common Stock beneficially owned by BVF, BVF2, BVLLC and ILL10.

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

Not Applicable.

Item 8. Identification and Classification of Members of the Group.

See Exhibit 99.1.

Item 9. Notice of Dissolution of Group.

Not Applicable.

Item 10. Certifications.

By signing below each of the undersigned certifies that, to the best of its 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.

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#### CUSIP NO. 64125C109

#### **SIGNATURE**

After reasonable inquiry and to the best of his knowledge and belief, each of the undersigned certifies that the information set forth in this statement is true, complete and correct.

Dated: February 10, 2010

BIOTECHNOLOGY VALUE FUND, L.P. INVESTMENT 10, L.L.C.

By: BVF Partners L.P., its general By: BVF Partners L.P., its investment

partner manager

By: BVF Inc., its general partner By: BVF Inc., its general partner

By: /s/ Mark N. Lampert By: /s/ Mark N. Lampert

Mark N. Lampert Mark N. Lampert

President President

BIOTECHNOLOGY VALUE FUND II, L.P. BVF PARTNERS L.P.

By: BVF Partners L.P., its general By: BVF Inc., its general partner

partner

By: BVF Inc., its general partner By: /s/ Mark N. Lampert

Mark N. Lampert

By: /s/ Mark N. Lampert President

Mark N. Lampert

President

BVF INVESTMENTS, L.L.C. BVF INC.

By: BVF Partners L.P., its manager By: /s/ Mark N. Lampert

Mark N. Lampert

By: BVF Inc., its general partner President

By: /s/ Mark N. Lampert

Mark N. Lampert
President

/s/ Mark N. Lampert
MARK N. LAMPERT

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