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, no par value

(Title of Class of Securities)

64125C10 (CUSIP Number)

*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).

| Page 1 of 5 pages | | | | | | | |
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| | 64125C10 | 9 | | PAGE 2 | 0F | 5 | PAGES |
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878,970

10 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES*[] 11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9 5.2% 12 TYPE OF REPORTING PERSON * CO

*SEE INSTRUCTIONS BEFORE FILLING OUT!

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- ITEM 1(A). Name of Issuer: Neurocrine Biosciences, Inc.
- ITEM 1(B). Address of Issuer's Principal Executive Offices: 3050 Science Park Road, San Diego, CA 92121
- ITEM 2(A). Name of Person Filing: Abingworth Bioventures SICAV ("ABS")
- ITEM 2(B). Address of Principal Business Office or, if None, Residence: The address of the principal business office of ABS is 231 Val des Bons Malades, L-2121 Luxembourg-Kirchberg.
- ITEM 2(C). Citizenship: ABS is a corporation organized under the laws of Luxembourg.
- ITEM 2(D). Title of Class of Securities: Common Stock, no par value.
- ITEM 2(E). CUSIP Number: 64125C10
- ITEM 3. If this statement is filed pursuant to Rules 13d-1(b), or 13d-2(b), check whether the person filing is a:
 - (a) [] Broker or Dealer registered under Section 15 of the Securities Exchange Act of 1934 (the "Act").
 - (b) [] Bank as defined in Section 3(a)(6) of the Act.
 - (c) [] Insurance Company as defined in Section 3(a)(19) of the Act.
 - (d) [] Investment Company registered under Section 8 of the Investment Company Act of 1940.
 - (e) [] Investment Adviser registered under Section 203 of the Investment Advisers Act of 1940.
 - (f) [] Employee Benefit Plan, Pension Fund which is subject to the provisions of the Employee Retirement Income Security Act of 1974 or Endowment Fund; see Rule 13d-1(b)(1)(ii)(F) of the Act.
 - (g) [] Parent Holding Company, in accordance with Rule 13d-1(b)(ii)(G) of the Act.
 - (h) [] Group, in accordance with Rule 13d-1(b)(1)(ii)(H)of the Act.

Not applicable. This statement on Schedule 13G is not filed pursuant to Rule 13d-1(b) or Rule13d-2(b).

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ITEM 4. Ownership.

(a) Amount Beneficially Owned: ABS is the record and

beneficial owner of 878,970 shares of Common Stock as of December 31, 1996.

- (b) Percent of Class: 5.2%. The foregoing percentage is calculated based on the 16,766,473 shares of Common Stock reported to be outstanding in the Quarterly Report on Form 10-Q of Neurocrine Biosciences, Inc. for the quarter ended September 30, 1996.
- (c) Number of shares as to which such person has:

 - (ii) shared power to vote or to direct the vote: 0 shares.
 - (iii) sole power to dispose or to direct the disposition of: 878,970 shares.
 - (iv) shared power to dispose or to direct the disposition of: 0 shares.
- 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.

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.

Not applicable. This statement on Schedule 13G is not filed pursuant to Rule 13d-1(b).

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SIGNATURE

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

Date: February 4, 1997

ABINGWORTH BIOVENTURES SICAV

By: /s/ Karl U. SANNE Name: Karl U. SANNE

Title: Director

By: /s/ Fernand HEIM Name: Fernand HEIM

Title: Mandatory