Instruction 1(b).

FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

| Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See | STATEMENT OF CHAN |
|---|-------------------|
| obligations may continue. See | |

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

OMB APPROVAL

OMB Number: 3235-0287

Estimated average burden hours per response: 0.5

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

| Name and Address of Reporting Person* RASTETTER WILLIAM H | | | | | 2. Issuer Name and Ticker or Trading Symbol NEUROCRINE BIOSCIENCES INC [NBIX] | | | | | | | | | | ck all applic | tionship of Reporting all applicable) Director | | 10% O | vner |
|---|---|--|---|---------------------------|---|----|----------------|------|---|---|---|----------|-----------------|---|---|--|--|---|------|
| (Last) 12780 E | (Last) (First) (Middle) 12780 EL CAMINO REAL | | | | 3. Date of Earliest Transaction (Month/Day/Year) 05/25/2011 | | | | | | | | | | Officer (give title below) | | Other (below) | specify | |
| (Street) SAN DIEGO CA 92130 (City) (State) (Zip) | | | | | 4. If Amendment, Date of Original Filed (Month/Day/Year) | | | | | | | | Line | Individual or Joint/Group Filing (Check Applicable ne) X Form filed by One Reporting Person Form filed by More than One Reporting Person | | | | | |
| (1.3) | | , | ole I - Non | -Deriva | tive | Se | curities | s Ac | auired. I | Disi | nosed o | f. or Be | nef | cially | / Owned | | | | |
| 1. Title of Security (Instr. 3) 2. Trans Date | | | 2. Transac Date (Month/Da | 2A. Deemed Execution Date | | | Code (Ir 8) | | Disposed | ecurities Acquired (A) osed Of (D) (Instr. 3, | | | 5. Amount of | | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | | 7. Nature of Indirect Beneficial Ownership (Instr. 4) | | |
| | | • | Table II - I) | | | | | | uired, Di , option | | | | | | Owned | | | | |
| Derivative Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative Security | 3. Transaction Date (Month/Day/Year) | 3A. Deemed Execution D if any (Month/Day | Date, Tra | ransaction ode (Instr. | | | | 6. Date Exe Expiration (Month/Day | Date | of Securities Underlying Derivative Sec (Instr. 3 and 4) | | | 8. Price of Derivative Security (Instr. 5) | 9. Number derivative Securities Beneficial Owned Following Reported Transactio (Instr. 4) | ly | 10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | Beneficial Ownership t (Instr. 4) | |
| | | | | Co | ode | v | (A) | (D) | Date Exercisable | | xpiration ate | Title | or Nui of | mber ares | | | | | |
| Stock Ontion(1) | \$7.05 | 05/25/2011 | | A | 4 | | 20,000 | | 06/25/2011 | | 5/25/2018 | Common | 20 | ,000 | \$ 0 | 20,000 | | D | |

Explanation of Responses:

1. Represents option of which 1/12th of the shares underlying the option becomes vested and exercisable on June 25, 2011, an additional 1/12th of the shares underlying the option becomes vested and exercisable each month thereafter.

Remarks:

Margaret E. Valeur-Jensen, By

** Signature of Reporting Person

05/25/2011

Power of Attorney

Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

- * If the form is filed by more than one reporting person, see Instruction 4 (b)(v).
- ** Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.