UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

OMB APPROVAL OMB Number: 3235-0287 Estimated average burden

X 10% Owner

hours per response:

5. Relationship of Reporting Person(s) to Issuer (Check all applicable)

X Director

0.5

11. Nature of Indirect Beneficial Ownership (Instr. 4)

Through Partnership⁽³⁾

Through Partnership⁽³⁾

Partnership⁽³⁾

| _ | Check this box if no longer subject to |
|--------|------------------------------------------|
| 11 | Section 16. Form 4 or Form 5 obligations |
| \sim | may continue. See Instruction 1(h) |

1. Name and Address of Reporting Person*

Baker Brothers Life Sciences Capital (GP), LLC

FORM 4

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

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

2. Issuer Name and Ticker or Trading Symbol

INCYTE CORP [INCY]

| (Last) (First) (Middle) 667 MADISON AVENUE 17TH FLOOR | | | | | 3. Date of Earliest Transaction (Month/Day/Year) 09/24/2009 | | | | | | | | | | Other below | (specify /) | | | | |
|-----------------------------------------------------------------------------|-----------------------------------------------------------|--------------------------------------------|-------------------------------------------------------------|---------------------------------|----------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------|-------|----------------------------------------------------------------|---------------------------------------------------------|--------------------------------------------------------|------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|-------------------------------------------------------|---------------------------------------------------|-------------------------------------------------------------------|----------------------------|--|
| (Street) NEW YORK NY 10021 | | | | | 4. If A | mendment, | ndment, Date of Original Filed (Month/Day/Year) | | | | | | | 6. Individual or Joint/Group Filing (Check Applicable Line) Form filed by One Reporting Person X Form filed by More than One Reporting Person | | | | | | |
| (City) | (S | itate) | (Zip) | | | | | | | | | | | | | | | | | |
| | | | Table I - N | on-De | rivativ | e Securi | ties Ac | qui | ired, | , Dis | posed of, | or Bene | ficially O | wne | ed | | | | | |
| 1. Title of Security (Instr. 3) | | | 2. Transaction Date (Month/Day/Year) | | 2A. Deemed Execution Date, if any (Month/Day/Year) | | 3. Transaction Code (Instr. 8) | | ion | 4. Securities Acquired (A Disposed Of (D) (Instr. 3, | | or 4 and 5) | 5. Amount of Securities Beneficially Owr Following Repor Transaction(s) | | vned orted | 6. Owner Form: Dir or Indirec (Instr. 4) | rect (D) ct (I) | 7. Nature of Indirect Beneficial Ownership (Instr. 4) | | |
| Common Stock ⁽¹⁾⁽²⁾ | | | 09/24 | 4/2009 | | | | | | Amount | (A) or (D) | Price \$6.75 | (Instr. 3 and 4) 8,929,70 | | | | | Through | | |
| | IUCK | | Table II | | | Socuriti | ecurities Acqu | | | | | | | | | | | | Partnership ⁽³⁾ | |
| | | | | (e.g. | , puts, | calls, w | arrants | i, oj | | | convertible | | | neu | | | | | | |
| 1. Title of Derivative Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative | 3. Transaction Date (Month/Day/Year) | 3A. Deemed Execution Date, if any (Month/Day/Year) | Transaction S Code (Instr. c | | 5. Number of Derivativ Securities Acquired (A or Disposed of (D) (Ins 8, 4 and 5) | | 0 I | 6. Date Exercisable and Expiration Date (Month/Day/Year) | | 7. Title an Securities Derivative (Instr. 3 a | d Amount of Underlying Security nd 4) | | 8. Price of Derivative Security (Instr. 5) | 9. Number of derivative Securities Beneficially Owned | | 10. Ownersh Form: Direct (D or Indire | Beneficial Ownership ct (Instr. 4) | | |
| | Security | | | Code | v | (A) | (D) | | Date Exerc | cisable | Expiration Date | Title | Amount or Number of Shares | | | Following Reported Transaction(s) (Instr. 4) | | (I) (Instr. | 4) | |
| 4.75% Convertible Senior Note due 2015 | \$8.78 | 09/24/2009 | | A | | 124,687,000 | | | (4) | | 10/01/2015 | Common Stock | 14,201,252 | | \$100 | 124,687,000 | | I | Through Partnership | |
| 3.5% Subordinated Convertible Note due 2011 | \$11.2185 | 09/24/2009 | | D | | | 42,509,00 | 00 | | (4) | 02/15/2011 | Common Stock | 3,789,187 | | \$97.88 | 0 | | I | Through Partnership | |
| 3.5% Senior Convertible Note due 2011 | \$11.2185 | 09/24/2009 | | D | | | 33,130,0 | 00 | | (4) | 02/15/2011 | Common Stock | 2,953,157 | 57 | \$98.74 | 0 | | I | Through Partnership | |
| | | eporting Person* | Canital (GP) | LLC | | | | | | | | | | | | | | | | |
| Baker Brothers Life Sciences Capital (GP), LLC (Last) (First) | | | | | - | | | | | | | | | | | | | | | |
| 667 MADI 17TH FLO | | NUE | | | | _ | | | | | | | | | | | | | | |
| (Street) NEW YORK NY | | | 10021 | | | | | | | | | | | | | | | | | |
| (City) | | (State) | (Zip) | | | | | | | | | | | | | | | | | |
| 1. Name and BAKER | | eporting Person [*] | | | | | | | | | | | | | | | | | | |
| (Last) BAKER B 667 MADI | | (First) ADVISORS NUE | (Middle) | | | | | | | | | | | | | | | | | |
| (Street) NEW YOF | RΚ | NY | 10021 | | | | | | | | | | | | | | | | | |
| (City) | | (State) | (Zip) | | | | | | | | | | | | | | | | | |
| 1. Name and BAKER | | eporting Person [*] | | | | _ | | | | | | | | | | | | | | |
| (Last) BAKER B 667 MADI | | (First) ADVISORS NUE | (Middle) | | | _ | | | | | | | | | | | | | | |

| (Street) NEW YORK | NY | 10021 |
|----------------------|---------|-------|
| (City) | (State) | (Zip) |

Explanation of Responses:

1. This Form 4 is filed on behalf of a group consisting of Baker Brothers Life Sciences Capital (GP), LLC, Julian C. Baker and Felix J. Baker. The Reporting Persons are filing solely for informational purposes as if they were members of a group of such shareholders. The Reporting Persons disclaim that they and any other person or persons, in fact constitute a for purposes of Section 13(d)(3) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or Rule 13d-5 thereunder. Julian C. Baker is a director of the Issuer, and each of the other Reporting Persons may be deemed to be a director by deputization of the Issuer.

As the sole general partner of Baker Brothers Life Sciences Capital, L.P., Baker Brothers Life Sciences Capital (GP), LLC may be deemed to be the indirect beneficial owner of such securities under Rule 16a-1(a)(2) promulgated under the Exchange Act, Baker Brothers Life Sciences Capital (GP), LLC disclaims beneficial ownership of such securities, except to the extent of its pecuniary interest therein. As the controlling members of Baker Brothers Life Sciences Capital (GP), LLC, Julian C. Baker and Felix J. Baker and Felix J. Baker disclaims beneficial ownership of such securities, except to the extent of his pecuniary interest therein.

3. The securities of the Issuer are owned directly by Baker Brothers Life Sciences, L.P., a limited partnership the sole general partner of which is Baker Brothers Life Sciences Capital, L.P., a limited partnership the sole general partner of which is Baker Brothers Life Sciences Capital, GP), LLC. Julian C. Baker and Felix J. Baker are the controlling members of Baker Brothers Life Sciences Capital (GP), LLC. Baker Brothers Life Sciences Capital (GP), LLC, Julian C. Baker and Felix J. Baker are the controlling members of Baker Brothers Life Sciences Capital (GP), LLC, Baker Brothers Life Sciences Capital (GP), LLC, Julian C. Baker and Felix J. Baker

4. Infinediatery.

Remarks:

Julian C. Baker is a director of the Issuer. Solely for purposes of Section 16 of the Securities Exchange Act of 1934, each of the other Reporting Persons may be deemed a director by deputization because of their relationship with Julian C. Baker and each other.

| <u>/s/ Julian C. Baker, as Managing</u> | |
|-----------------------------------------|-------------------|
| Member of Baker Brothers Life | <u>09/28/2009</u> |
| Sciences Capital (GP), LLC | |
| <u>/s/ Julian C. Baker</u> | <u>09/28/2009</u> |
| /s/ Felix J. Baker | <u>09/28/2009</u> |
| ** Signature of Reporting Person | 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.