FORM 4

## UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

## STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

| OMB APPROVAL             |          |  |  |  |  |  |  |  |  |
|--------------------------|----------|--|--|--|--|--|--|--|--|
| OMB Number:              | 3235-028 |  |  |  |  |  |  |  |  |
| Estimated average burden |          |  |  |  |  |  |  |  |  |

0.5

hours per response:

Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

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

|  |   |  |                |          | 01 0   | Jour  | ) (II)  | 01 1110 1                                   |                                | ) III OO | inpuny Act                               | 0. 10   |                |   |                |   |   |   |                                       |  |  |
|--|---|--|----------------|----------|--|---|---|---|--------------------------------|----------|--|---|----------------|---|----------------|---|---|---|---------------------------------------|--|--|
| 1. Name and Address of Reporting Person*                     |   |  |                |          |  |   | 2. Issuer Name and Ticker or Trading Symbol ISIS PHARMACEUTICALS INC [ ISIS ] |   |                                |          |  |   |                |   |                | 5. Relationship of Reporting Person(s) to Issuer (Check all applicable) |   |   |                                       |  |  |
| ECKER DAVID J  |   |  |                |          |  |   |   |   |                                |          |  |   |                |   |                | Direc   |   |   | Owner                                 |  |  |
| (Last) (First) (Middle)                                      |   |  |                |          |  | Date of Earliest Transaction (Month/Day/Year) |   |   |                                |          |  |   |                |   | X              | Officer (give title below)  |   | Othe<br>belo  | r (specify<br>v)                      |  |  |
| 1896 RUTHERFORD ROAD   |   |  |                |          |  | 07/01/2005                                    |   |   |                                |          |  |   |                |   | Vice President |   |   |   |                                       |  |  |
| (Street)   |   |  |                | 4. If    | 4. If Amendment, Date of Original Filed (Month/Day/Year) |   |   |   |                                |          |  |   |                | 6. Individual or Joint/Group Filing (Check Applicable Line) |                |   |   |   |                                       |  |  |
| CARLSE   | BAD CA  | 92008                                      |                |          |  |   |   |   |                                |          |  |   |                |   | X              | Form filed by One Reporting Person                                      |   |   |                                       |  |  |
| (City)   | (State) (Zip)   |  |                |          |  |   |   |   |                                |          |  |   |                |   | Form<br>Pers   |   | e than One Re   | eporting  |                                       |  |  |
| (City)   | (5)   |  | (Ζιρ)          |          |  |   |   |   |                                |          |  |   |                |   |                |   |   |   |                                       |  |  |
|  |   | Tab  | le I - No      | n-Deriv  | ative  | Sec   | curitie   | s Ac  | quired                         | , Dis    | sposed o                                 | f, o  | r Ber          | efici   | ally C         | Owne  | ed  |   |                                       |  |  |
| 1. Title of Security (Instr. 3)  2. Transact Date (Month/Day |   |  |                |          |  | Execution Date,                               |   | 3. 4. Securities Disposed O Code (Instr. 8) |                                |          | es Acquired (A) o<br>Of (D) (Instr. 3, 4 |   |                | l and 5) So<br>Bo   |                | ount of<br>ities<br>icially<br>d Following                              | 6. Ownership<br>Form: Direct<br>(D) or Indirect<br>(I) (Instr. 4)                               | Ownership   |                                       |  |  |
|  |   |  |                |          |  |   |   |   |                                | v        | Amount                                   |   | (A) or<br>(D)  | Price   | - 1            | Reported<br>Transaction(s)<br>(Instr. 3 and 4)                          |   |   | (Instr. 4)                            |  |  |
| Common Stock 07/01/2   |   |  |                |          |  | 2005 07/01/2005                               |   | J   | V                              | 3,477(1  | )  | A   | \$3.3          | 575   | 75 40,970      |   | I   | By Trust  |                                       |  |  |
|  |   | Т  | able II -      |          |  |   |   |   |                                |          | osed of,<br>onvertib                     |   |                |   |                | ned   |   |   |                                       |  |  |
| 1. Title of<br>Derivative<br>Security<br>(Instr. 3)          | 2.<br>Conversion<br>or Exercise<br>Price of<br>Derivative<br>Security | 3. Transaction<br>Date<br>(Month/Day/Year) | Execution (ar) | on Date, | 4.<br>Transaction<br>Code (Instr.<br>8)                  |   |   |   | 6. Date<br>Expirati<br>(Month/ | on Da    |  | 7. Title and<br>Amount of<br>Securities<br>Underlying<br>Derivative<br>Security (Inst<br>and 4) |                | ı   |                |   | 9. Number of derivative Securities Beneficially Owned Following Reported Transaction (Instr. 4) | Ownership<br>Form:<br>Direct (D)<br>or Indirect<br>(I) (Instr. 4) | Beneficial<br>Ownership<br>(Instr. 4) |  |  |
|  |   |  |                |          | Code   | V   | (A)   | (D)   | Date<br>Evercis                | able     | Expiration                               | Title   | or<br>Nu<br>of | nount   |                |   |   |   |                                       |  |  |

## Explanation of Responses:

1. Reporting 3,477 shares acquired under the Isis Pharmaceuticals, Inc. 2000 Employee Stock Purchase Plan on July 1, 2005.

## Remarks:

David J. Ecker

07/01/2005

\*\* 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.