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# 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          |
| Instruction 1(b).                      |

# 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

| OMB APPROVAL             |           |  |  |  |  |  |  |  |  |  |
|--------------------------|-----------|--|--|--|--|--|--|--|--|--|
| OMB Number:              | 3235-0287 |  |  |  |  |  |  |  |  |  |
| Estimated average burden |           |  |  |  |  |  |  |  |  |  |
| hours per response.      | 0.5       |  |  |  |  |  |  |  |  |  |

| 1. Name and Addre<br>Lundstrom B                          | ss of Reporting Pers<br>rian | son*           | 2. Issuer Name and Ticker or Trading Symbol<br><u>ACADIA PHARMACEUTICALS INC</u> [<br>ACAD ] |                        | tionship of Reporting Pe<br>all applicable)<br>Director<br>Officer (give title<br>below) | erson(s) to Issuer<br>10% Owner<br>Other (specify<br>below) |
|---|------------------------------|----------------|--|------------------------|--|---|
| (Last) (First) (Middle)<br>3911 SORRENTO VALLEY BOULEVARD |                              |                | 3. Date of Earliest Transaction (Month/Day/Year)<br>09/20/2007                               |                        | Sr. VP, Bus.   | ,   |
| (Street)<br>SAN DIEGO<br>(City)                           | CA<br>(State)                | 92121<br>(Zip) | 4. If Amendment, Date of Original Filed (Month/Day/Year)                                     | 6. Indiv<br>Line)<br>X | idual or Joint/Group Filir<br>Form filed by One Rep<br>Form filed by More that<br>Person | porting Person  |

## Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

| 1. Title of Security (Instr. 3) | 2. Transaction<br>Date<br>(Month/Day/Year) | 2A. Deemed<br>Execution Date,<br>if any<br>(Month/Day/Year) |                         |   | 4. Securities<br>Disposed Of<br>5) |               |               | 5. Amount of<br>Securities<br>Beneficially<br>Owned Following<br>Reported | 6. Ownership<br>Form: Direct<br>(D) or Indirect<br>(I) (Instr. 4) | 7. Nature<br>of Indirect<br>Beneficial<br>Ownership<br>(Instr. 4) |
|---------------------------------|--|---|-------------------------|---|------------------------------------|---------------|---------------|---|---|---|
|                                 |  |   | Code                    | v | Amount                             | (A) or<br>(D) | Price         | Transaction(s)<br>(Instr. 3 and 4)  |   | (1130.4)  |
| Common Stock                    | 09/20/2007                                 |   | <b>M</b> <sup>(1)</sup> |   | 1,418                              | Α             | <b>\$6.61</b> | 1,418   | D   |   |
| Common Stock                    | 09/20/2007                                 |   | <b>S</b> <sup>(1)</sup> |   | 1,318                              | D             | \$16.08       | 100   | D   |   |
| Common Stock                    | 09/20/2007                                 |   | <b>S</b> <sup>(1)</sup> |   | 100                                | D             | \$16.09       | 0   | D   |   |

Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

| 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) | 3A. Deemed<br>Execution Date,<br>if any<br>(Month/Day/Year) | 4.<br>Transa<br>Code (<br>8) |   | of  |       | 6. Date Exercisable and<br>Expiration Date<br>(Month/Day/Year) |                    | 7. Title and<br>Amount of<br>Securities<br>Underlying<br>Derivative Security<br>(Instr. 3 and 4) |  | 8. Price of<br>Derivative<br>Security<br>(Instr. 5) | 9. Number of<br>derivative<br>Securities<br>Beneficially<br>Owned<br>Following<br>Reported<br>Transaction(s)<br>(Instr. 4) | 10.<br>Ownership<br>Form:<br>Direct (D)<br>or Indirect<br>(I) (Instr. 4) | 11. Nature<br>of Indirect<br>Beneficial<br>Ownership<br>(Instr. 4) |
|---|---|--|---|------------------------------|---|-----|-------|--|--------------------|--|--|---|--|--|--|
|   |   |  |   | Code                         | v | (A) | (D)   | Date<br>Exercisable  | Expiration<br>Date | Title  | Amount<br>or<br>Number<br>of<br>Shares | 4   |  |  |  |
| Stock<br>Option<br>(Right to<br>Buy)                | \$6.61  | 09/20/2007                                 |   | М                            |   |     | 1,418 | (2)  | 11/23/2014         | Common<br>Stock  | 1,418                                  | \$0   | 77,500   | D  |  |

### Explanation of Responses:

1. The transactions reported in this Form 4 were made pursuant to an automatic sales plan under Rule 10b5-1 of the Securities Exchange Act of 1934, as amended. The plan provides for the non-discretionary periodic sales of stock (and corresponding exercises of options, if needed) pursuant to predetermined trading parameters that do not permit Mr. Lundstrom to exercise any influence over how, when or whether to effect trades under the plan after its adoption.

2. 25% of the shares subject to the Stock Option vested and became exercisable on November 24, 2005. The remaining shares vest and become exercisable thereafter in 36 equal monthly installments.

### **Brian Lundstrom**

09/21/2007 \*\* 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.