

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

**STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP**

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

|   |   |   |
|---|---|---|
| <b>1. Name and Address of Reporting Person*</b><br><u>Carmichael Clare</u><br><br>(Last) (First) (Middle)<br><u>C/O ALEXION PHARMACEUTICALS, INC.</u><br><u>352 KNOTTER DRIVE</u><br><br>(Street)<br><u>CHESHIRE CT 06410</u><br><br>(City) (State) (Zip) | <b>2. Issuer Name and Ticker or Trading Symbol</b><br><u>ALEXION PHARMACEUTICALS INC [ ALXN ]</u> | <b>5. Relationship of Reporting Person(s) to Issuer</b><br>(Check all applicable)<br>Director 10% Owner<br><input checked="" type="checkbox"/> Officer (give title below) Other (specify below)<br><u>SVP, Chief HR Officer</u> |
|   | <b>3. Date of Earliest Transaction (Month/Day/Year)</b><br><u>02/03/2012</u>                      |   |
|   | <b>4. If Amendment, Date of Original Filed (Month/Day/Year)</b>                                   |   |
|   |   | <b>6. Individual or Joint/Group Filing (Check Applicable Line)</b><br><input checked="" type="checkbox"/> Form filed by One Reporting Person<br>Form filed by More than One Reporting Person                                    |

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

| 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) |   | 4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5) |            |       | 5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4) | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 7. Nature of Indirect Beneficial Ownership (Instr. 4) |
|---|--------------------------------------|--|--------------------------------|---|---|------------|-------|---|--|---|
|   |                                      |  | Code                           | V | Amount  | (A) or (D) | Price |   |  |   |
| Common Stock, par value \$.0001 per share | 02/03/2012                           |  | M                              |   | 3,000 <sup>(1)</sup>  | A          | \$0   | 8,000   | D  |   |

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

| 1. Title of Derivative Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative Security | 3. Transaction Date (Month/Day/Year) | 3A. Deemed Execution Date, if any (Month/Day/Year) | 4. Transaction Code (Instr. 8) |   | 5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) |     | 6. Date Exercisable and Expiration Date (Month/Day/Year) |                 | 7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4) | 8. Price of Derivative Security (Instr. 5) | 9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4) | 10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 11. Nature of Indirect Beneficial Ownership (Instr. 4) |       |
|--|--|--------------------------------------|--|--------------------------------|---|--|-----|--|-----------------|---|--|--|---|--|-------|
|  |  |                                      |  | Code                           | V | (A)  | (D) | Date Exercisable   | Expiration Date |   |  |  |   |  | Title |
| Option to Purchase Common Stock            | \$78.88  | 02/03/2012                           |  | M                              |   | 24,000 <sup>(2)</sup>  |     | 05/03/2012   | 02/03/2022      | Common Stock, par value \$.0001 per share   | 24,000                                     | \$0  | 24,000  | D  |       |

**Explanation of Responses:**

- Award of Restricted Stock Units pursuant to 2004 Incentive Plan. 50% vests on two year anniversary of grant date and 1/8 vests every 6 months thereafter.
- 1/16 vests every three months following grant date.

/s/ Clare Carmichael

02/06/2012

\*\* 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.