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

**OMB APPROVAL** OMB Number: 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

| 1. Name and Address of Reporting Person*  KINLEY MATTHEW P                                    |   |  |  |         |   | 2. Issuer Name <b>and</b> Ticker or Trading Symbol HEALTHCARE ACQUISITION CORP [ HAQ ] |   |          |  |                                   |                  |   |                               |   | k all applic<br>Directo   | cable)                           | J  | son(s) to Iss<br>10% Ov<br>Other (s                                | vner  |
|---|---|--|--|---------|---|--|---|----------|--|-----------------------------------|------------------|---|-------------------------------|---|---|----------------------------------|--|--|---|
| (Last) (First) (Middle) HEALTHCARE ACQUISITION CORP. 2116 FINANCIAL CENTER, 666 WALNUT STREET |   |  |  |         |   | ate o  |   | st Trans | action (Mo                             | onth/[                            | Day/Year)        |   |                               |   | below)  | .0                               | ent &  | below) z Treasure  | · ·   |
| (Street) DES MOINES IA 50309  |   |  |  |         | 4. If Amendment, Date of Original Filed (Month/Day/Year) 08/03/2007 |  |   |          |  |                                   |                  |   | Line)                         | Individual or Joint/Group Filing (Check Applicable le)  X Form filed by One Reporting Person Form filed by More than One Reporting Person |   |                                  |  |  |   |
| (City)  | (5  |  | zip)<br>e I - Noi                            | n-Deriv | ative   | Sec  | curitie   | es Ac    | guired.                                | Disi                              | nosed o          | of or Be  | nefi                          | cially  | Owner   | <u> </u>                         |  |  |   |
| 1. Title of Security (Instr. 3)  2. Transa Date (Month/D                                      |   |  |  |         | ection  | 2<br>Ear) if   | 2A. Deemed<br>Execution Date,<br>if any<br>(Month/Day/Year) |          | 3.<br>Transa<br>Code (I                | 3.<br>Transaction<br>Code (Instr. |                  | 4. Securities Acquired (A)<br>Disposed Of (D) (Instr. 3, 5) |                               |   | 5. Amou<br>Securitie<br>Benefici<br>Owned F   | nt of<br>es<br>ally<br>Following | Form<br>(D) o  | r Indirect<br>str. 4)  | 7. Nature<br>of Indirect<br>Beneficial<br>Ownership<br>(Instr. 4) |
|   |   |  |  |         |   |  |   |          | Code                                   | v                                 | Amount           | (A) o<br>(D)  | r P                           | rice  | Reporter<br>Transact<br>(Instr. 3   | tion(s)                          |  |  | (IIISU. 4)  |
| Common Stock <sup>(1)</sup> 08/03/  |   |  |  |         | /2007   | 2007   |   |          | P                                      |                                   | 50,00            | 00 A  |                               | \$7.66  | 541,000   |                                  |  | D  |   |
|   |   | Т  | able II -                                    |         |   |  |   |          |  |                                   |                  | , or Ben<br>ble secu  |                               |   | Owned   |                                  |  |  |   |
| 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. Deem<br>Execution<br>if any<br>(Month/Da | Date,   | 4.<br>Transaction<br>Code (Instr.<br>8)                             |  |   |          | 6. Date Exc<br>Expiration<br>(Month/Da | Date                              | of Securities    |   |                               | 3. Price of<br>Derivative<br>Security<br>Instr. 5)  | 9. Number<br>derivative<br>Securities<br>Beneficial<br>Owned<br>Following<br>Reported<br>Transactio<br>(Instr. 4) | e<br>es<br>ally<br>g             | 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)   |          | Date<br>Exercisabl                     |                                   | xpiration<br>ate | Title   | Amo<br>or<br>Nun<br>of<br>Sha |   |   |                                  |  |  |   |
| Warrants <sup>(2)</sup>   | \$6   |  |  |         |   |  |   |          | 08/03/200                              | 7 0                               | 7/28/2009        | Common  | 70,                           | 980   |   | 70,980                           | )  | D  |   |

## **Explanation of Responses:**

- 1. Reporting person has granted options to purchase an aggregate of 215,418 shares to five entities which may not be exercised until July 28, 2008.
- 2. The Warrants became exercisable on August 3, 2007, the date upon which Healthcare Acquisition Corp. completed its business combination with PharmAthene, Inc.

08/16/2007 /s/ Matthew P. Kinley

\*\* 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.