#### FORM 4

### UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington D.C. 20549

| wasnington, | D.C. | 20549 |
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|             |      |       |

| Check this box if no longer subject to |  |
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| Section 16. Form 4 or Form 5           |  |
| bligations may continue. See           |  |
|  |  |

# STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

OMB APPROVAL

OMB Number: 3235-0287

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

| Name and Address of Reporting Person*     Young Rodney KB  (Last) (First) (Middle) |   |  |  |        | 3. D   | Issuer Name and Ticker or Trading Symbol STEMCELLS INC [ STEM ]      Date of Earliest Transaction (Month/Day/Year) 05/15/2010 |   |                           |                                     |         |                     |                            |                                       |              |  | tionship of Reporting<br>all applicable)<br>Director<br>Officer (give title<br>below) |   | ng Per<br>CFO                                       | 10% Owner<br>Other (specify<br>below)                     |  |
|--|---|--|--|--------|--|---|---|---------------------------|-------------------------------------|---------|---------------------|----------------------------|---------------------------------------|--------------|--|---|---|---|---|--|
| STEMCELLS, INC. 3155 PORTER DRIVE  |   |  |  |        | 4. If Amendment, Date of Original Filed (Month/Day/Year)  6. Individual or Joint/Group |   |   |                           |                                     |         |                     |                            |                                       |              | p Filin                                    | g (Check A  | pplicable   |   |   |  |
| (Street) PALO A  | LTO CA  | A 9  | 94304  |        |  |   |   |                           |                                     |         |                     |                            |                                       |              | ine)<br>X                                  |   | n filed by One<br>n filed by Mo<br>son  |   | •   |  |
| (City)   | (St   |  | Zip)   |        |  |   |   |                           |                                     |         |                     |                            |                                       |              |  |   |   |   |   |  |
| 1. Title of Security (Instr. 3)  |   | 2. Transaction<br>Date                     |  | ur)    | 2A. Deemed<br>Execution Date,  |   | 3.<br>Transaction<br>Code (Instr.                       |                           |                                     |         |                     | (A) or                     | or 5. Ar<br>4 and Secu<br>Bene<br>Own |              | ount of<br>ities<br>icially<br>d Following | 6. Ownership<br>Form: Direct<br>(D) or Indirect<br>(I) (Instr. 4)                     |   | 7. Nature<br>of Indirect<br>Beneficial<br>Ownership |   |  |
|  |   |  |  |        |  |   |   |                           | Code                                | v       | Amount              |                            | (A) or<br>(D)                         | Price        | .   1                                      | Repor<br>Fransa<br>Instr.   | action(s)<br>3 and 4)   |   |   | (Instr. 4)   |
| Common   | ommon Stock 05/15/  |  |  | 5/2010 | .010   |   | F   |                           | 26,667 D                            |         | D                   | \$1.                       | 09                                    | 274,950(1)   |  |   | D   |   |   |  |
| Common Stock   |   |  |  |        |  |   |   |                           |                                     |         |                     |                            |                                       | :            |  | 3,204   |   | I   | By<br>401(k)<br>Plan <sup>(2)</sup>                       |  |
|  |   | Та   |  |        |  |   |   |                           |                                     |         | sed of,<br>onvertib |                            |                                       |              | y Ow                                       | 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) | 3A. Deem<br>Execution<br>if any<br>(Month/Da | Date,  | 4.<br>Transa<br>Code (<br>8)   | Instr   | n of<br>Deriv<br>Secu<br>Acqu<br>(A) o<br>Disp<br>of (D | r<br>osed<br>)<br>r. 3, 4 | 6. Date E<br>Expiration<br>(Month/D | on Date | е                   | Amo<br>Secu<br>Und<br>Deri | Am<br>or<br>Nur<br>of                 | ount<br>nber | 8. Prid<br>Deriva<br>Secur<br>(Instr.      | ative<br>ity  | 9. Number of<br>derivative<br>Securities<br>Beneficially<br>Owned<br>Following<br>Reported<br>Transaction<br>(Instr. 4) | , C   | 10. Dwnership Form: Direct (D) or Indirect (I) (Instr. 4) | 11. Nature<br>of Indirect<br>Beneficial<br>Ownership<br>(Instr. 4) |

## Explanation of Responses:

- 1. Includes (1) 170,000 restricted stock units, with 56,667 of this grant vesting on each of May 15, 2011, May 15, 2012 and May 15, 2013, and (2) 68,750 restricted stock units, vesting on March 10, 2011.
- 2. Shares held in 401(k) account, in accordance with issuer's employer-match policies.

## Remarks:

/s/ Ken Stratton, attorney-in-

05/19/2010

fact

\*\* Signature of Reporting Person

Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

- $^{\star}$  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.