

**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

| OMB APPROVAL                                 |           |
|--|-----------|
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|  |  |   |
|--|--|---|
| 1. Name and Address of Reporting Person*<br><u>WEISSMAN IRVING</u><br><br>(Last) (First) (Middle)<br><u>C/O STEMCELLS, INC.</u><br><u>3155 PORTER DRIVE</u><br><br>(Street)<br><u>PALO ALTO CA 94304</u><br><br>(City) (State) (Zip) | 2. Issuer Name and Ticker or Trading Symbol<br><u>STEMCELLS INC [ STEM ]</u> | 5. Relationship of Reporting Person(s) to Issuer (Check all applicable)<br><input checked="" type="checkbox"/> Director 10% Owner<br>Officer (give title below) Other (specify below) |
|  | 3. Date of Earliest Transaction (Month/Day/Year)<br><u>10/01/2010</u>        |   |
|  | 4. If Amendment, Date of Original Filed (Month/Day/Year)                     |   |

**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                    | 10/01/2010                           |  | A                              |   | 3,465   | A          | \$0.25 <sup>(1)</sup> | 342,881 <sup>(2)</sup>  | D  |   |
| Common Stock                    | 10/01/2010                           |  | A                              |   | 10,000  | A          | \$0.00                | 352,881 <sup>(2)</sup>  | D  |   |
| Common Stock                    |                                      |  |                                |   |   |            |                       | 190,111   | I  | family trust <sup>(3)</sup>                           |

**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) |   | 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) |   |  |  |   |  |

**Explanation of Responses:**

- The \$0.25 per share price was the stock option exercise price for shares granted to Dr. Weissman on October 6, 2000, November 3, 2000, December 31, 2000 and January 2, 2001.
- Includes (1) exercise of shares granted to Dr. Weissman on October 6, 2000, November 3, 2000, December 31, 2000 and January 2, 2001, and (2) anniversary equity grant of 10,000 restricted stock units, vesting 100% on October 1, 2011, the one year anniversary of the grant.
- 105,079 shares held in trust as to which Dr. Weissman disclaims beneficial ownership.

**Remarks:**

/s/ Ken Stratton, attorney-in-fact      10/05/2010

\*\* 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.