

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM S-8
REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

NEOSTEM, INC.
(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction
of incorporation or organization)

22-2343568
(I.R.S. employer
identification number)

420 Lexington Avenue, Suite 450
New York, NY 10170
(Address of principal executive offices; zip code)

NeoStem, Inc. 2009 Equity Compensation Plan
(Full title of the plan)

Catherine M. Vaczy, Esq.
Vice President and General Counsel
NeoStem, Inc.
420 Lexington Avenue, Suite 450
New York, NY 10170
(Name and address of agent for service)

(212) 584-4180
(Telephone number, including area code, of agent for service)

Copies to:
Alan Wovsaniker, Esq.
Lloyd Jeglikowski, Esq.
Lowenstein Sandler PC
65 Livingston Avenue
Roseland, New Jersey 07068
(973) 597-2500

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer
Non-accelerated filer (Do not check if a smaller
reporting company)

Accelerated filer
Smaller reporting company

CALCULATION OF REGISTRATION FEE

Title of Securities to be Registered	Amount to be Registered	Proposed Maximum Offering Price per Share (5)	Proposed Maximum Aggregate Offering Price (5)	Amount of Registration Fee
Common Stock, par value	3,000,000 shares (1)	\$ 0.39	\$ 1,170,000	\$ 135
\$0.001 per share	3,000,000 shares (2)	—	—	—
Total	6,000,000 shares (3)(4)			\$ 135

- (1) The registrant has previously registered on Forms S-8 (Registration Nos. 333-159282 and 333-173854) an aggregate of 17,750,000 shares of Common Stock issuable under the NeoStem, Inc. 2009 Equity Compensation Plan (the “2009 Plan”). On October 14, 2011, the registrant’s stockholders approved an amendment to the 2009 Plan to increase the number of shares of Common Stock authorized for issuance thereunder by 6,000,000 shares. This Registration Statement is being filed pursuant to General Instruction E of Form S-8 to register, for issuance pursuant to the 2009 Plan in addition to those shares of Common Stock previously registered under Registration Statements on Form S-8 (Registration Nos. 333-159282 and 333-173854) and allocated for issuance pursuant to the 2009 Plan, three million (3,000,000) additional shares of Common Stock.
- (2) In addition, as permitted by Interpretation #90 of Section G in the Securities and Exchange Commission, Division of Corporation Finance’s Manual of Publicly Available Telephone Interpretations, three million (3,000,000) additional shares of Common Stock originally registered on a Registration Statement on Form S-8 (Reg. No. 333-173854) with respect to the NeoStem, Inc. 2009 Non-U.S. Based Equity Compensation Plan (the “2009 Non-U.S. Plan”) and not issued pursuant to such 2009 Non-U.S. Plan are being moved to this Registration Statement. On October 14, 2011, the registrant amended the 2009 Non-U.S. Plan to decrease the number of shares of Common Stock authorized for issuance thereunder by 3,000,000 shares. A fee in the amount of \$672.22 with respect to the shares of Common Stock being moved to this Registration Statement was previously paid in connection with the filing of Registration Statement No. 333-173854 (out of the total registration fee of \$4,022.11 for such Registration Statement). The registrant has filed a post-effective amendment to Registration Statement No. 333-173854 indicating that 3,000,000 of the shares of Common Stock originally registered thereby and allocated for issuance pursuant to the 2009 Non-U.S. Plan, are being moved to this Registration Statement and allocated for issuance pursuant to the 2009 Plan.
- (3) Following the filing of this Registration Statement, there will be an aggregate of 23,750,000 shares of Common Stock registered and authorized for issuance pursuant to the 2009 Plan, consisting of: (i) the 3,000,000 additional shares registered hereby; (ii) the 3,000,000 shares being moved to this Registration Statement, which were originally registered with respect to the Non-U.S. Plan on Registration Statement No. 333-173854; and (iii) an aggregate of 17,750,000 shares of Common Stock previously registered with respect to the 2009 Plan by Registration Nos. 333-159282 and 333-173854.
- (4) In accordance with Rule 416 under the Securities Act of 1933, as amended (the “Securities Act”), this Registration Statement also covers such indeterminate number of additional shares as may be offered and issued under the 2009 Plan to prevent dilution resulting from any equity restructuring or change in capitalization of the registrant, including, but not limited to, spin offs, stock dividends, large non-recurring dividends, rights offerings, stock splits or similar transactions.
- (5) Estimated, in accordance with Rule 457(c) and Rule 457(h)(1) of the Securities Act, solely for the purpose of calculating the registration fee. The proposed maximum offering price per share and the proposed maximum aggregate offering price are based on the average of the high and low prices for a share of Common Stock on the NYSE Amex on May 4, 2012, which is within five business days prior to the date of this Registration Statement.

EXPLANATORY NOTE

NeoStem, Inc. (the “Company” or the “registrant”) has previously registered on Forms S-8 (Registration Nos. 333-159282 and 333-173854) an aggregate of 17,750,000 shares of the Company’s common stock, par value \$0.001 per share (“Common Stock”), issuable under the NeoStem, Inc. 2009 Equity Compensation Plan (the “2009 Plan”). On October 14, 2011, the Company’s stockholders approved an amendment to the 2009 Plan to increase the number of shares of Common Stock authorized for issuance thereunder by 6,000,000 shares (that is, from 17,750,000 shares to 23,750,000 shares). This Registration Statement is being filed pursuant to General Instruction E of Form S-8 to register, for issuance pursuant to the 2009 Plan in addition to those shares of Common Stock previously registered under Registration Statement Nos. 333-159282 and 333-173854 and allocated for issuance pursuant to the 2009 Plan, three million (3,000,000) additional shares of Common Stock. The contents of the earlier registration statements (Reg. Nos. 333-159282 and 333-173854) are hereby incorporated by reference and made a part hereof, except to the extent as amended hereby.

In addition, as permitted by Interpretation #90 of Section G in the Securities and Exchange Commission, Division of Corporation Finance’s Manual of Publicly Available Telephone Interpretations, three million (3,000,000) additional shares of Common Stock originally registered on a Registration Statement on Form S-8 (Reg. No. 333-173854) with respect to the NeoStem, Inc. 2009 Non-U.S. Based Equity Compensation Plan (the “2009 Non-U.S. Plan”) and not issued pursuant to such 2009 Non-U.S. Plan, are being moved to this Registration Statement for issuance pursuant to the 2009 Plan. On October 14, 2011, the Company amended the 2009 Non-U.S. Plan to decrease the number of shares of Common Stock authorized for issuance thereunder by 3,000,000 shares (that is, from 8,700,000 shares to 5,700,000 shares). The registrant has filed a post-effective amendment to Registration Statement No. 333-173854 indicating that 3,000,000 of the shares of Common Stock originally registered thereby and allocated for issuance pursuant to the 2009 Non-U.S. Plan, are being moved to this Registration Statement and allocated for issuance pursuant to the 2009 Plan.

Following the filing of this Registration Statement, there will be an aggregate of 23,750,000 shares of Common Stock registered for issuance under the 2009 Plan (the maximum number of shares authorized for issuance under such plan), consisting of: (i) the 3,000,000 additional shares registered hereby; (ii) the 3,000,000 shares being moved to this Registration Statement, which were originally registered with respect to the Non-U.S. Plan on Registration Statement No. 333-173854; and (iii) an aggregate of 17,750,000 shares of Common Stock previously registered with respect to the 2009 Plan by Registration Nos. 333-159282 and 333-173854. After moving 3,000,000 shares of Common Stock originally allocated to the Non-U.S. Plan and previously registered on Registration No. 333-173854, there remains an aggregate of 5,700,000 shares of Common Stock registered and authorized for issuance under the 2009 Non-U.S. Plan, covered by Registration No. 333-162733 (4,700,000 shares) and Registration No. 333-173854 (1,000,000 shares).

PART II INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Certain Documents by Reference.

The Securities and Exchange Commission allows us to “incorporate” into this registration statement information we file with other documents. This means that we may disclose important information to you by referring to other documents that contain that information. The information incorporated by reference is considered to be part of this registration statement, and information we file later with the Securities and Exchange Commission will automatically update and supersede this information. We incorporate by reference the following documents previously filed by us with the Securities and Exchange Commission, except to the extent information in those documents is different from the information contained in this registration statement:

- (i) our Quarterly Report on Form 10-Q for the quarter ended March 31, 2012, filed with the Securities and Exchange Commission on May 11, 2012;
- (ii) our Annual Report on Form 10-K for the fiscal year ended December 31, 2011, filed with the Securities and Exchange Commission on March 20, 2012;
- (iii) Amendment No. 1 on Form 10-K/A to our Annual Report on Form 10-K for the fiscal year ended December 31, 2011, filed with the Securities and Exchange Commission on April 30, 2012;

(iv) our Current Reports on Form 8-K and amendments thereto dated January 4, 2012 (filed January 6, 2012), January 10, 2012 (filed January 11, 2012), January 12, 2012 (filed January 12, 2012), January 25, 2012 (filed January 26, 2012), March 29, 2012 (filed March 29, 2012) and April 2, 2012 (filed April 5, 2012) (excluding any information deemed furnished pursuant to Item 2.02 or Item 7.01 of any such Current Report on Form 8-K); and

(v) the description of our Common Stock contained in our Registration Statement on Form 8-A, declared effective on August 8, 2007 (including any amendment or report filed with the Securities and Exchange Commission for the purpose of updating such description).

All documents subsequently filed by us with the Securities and Exchange Commission pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), prior to the filing of a post-effective amendment to this registration statement, which indicates that all securities offered hereby have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference in this registration statement and to be a part hereof from the date of filing of such documents.

Item 8. Exhibits.

The exhibits accompanying this registration statement are listed on the accompanying exhibit index.

Item 9. Undertakings.

(a) The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

- (i) To include any prospectus required by section 10(a)(3) of the Securities Act;
- (ii) To reflect in the prospectus any facts or events arising after the effective date of this registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Securities and Exchange Commission pursuant to Rule 424(b) promulgated under the Securities Act if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and
- (iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement.

Provided, however, that paragraphs (a)(1)(i) and (a)(1)(ii) do not apply if the registration statement is on Form S-8 and the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Securities and Exchange Commission by the undersigned registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in the registration statement; and that paragraphs (a)(1)(i), (a)(1)(ii) and (a)(1)(iii) do not apply if the registration statement is on Form S-3 and the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Securities and Exchange Commission by the undersigned registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is deemed part of the registration statement. *Provided further, however,* that paragraphs (a)(1)(i) and (a)(1)(ii) do not apply if the registration statement is for an offering of asset-backed securities on Form S-1 or Form S-3, and the information required to be included in a post-effective amendment is provided pursuant to Item 1100(c) of Regulation AB.

- (2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
- (5) That, for the purpose of determining liability under the Securities Act to any purchaser:
- (i) If the registrant is relying on Rule 430B:
 - (A) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and
 - (B) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by section 10(a) of the Securities Act shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. *Provided, however,* that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date; or
 - (ii) If the registrant is subject to Rule 430C, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. *Provided, however,* that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

(6) That, for the purpose of determining liability of the registrant under the Securities Act to any purchaser in the initial distribution of the securities:

The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

- (i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;
- (ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;
- (iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and
- (iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

(b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the undersigned registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(h) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of New York, State of New York, on May 11, 2012.

NEOSTEM, INC.

By: /s/ Robin L. Smith, M.D.

Name: Robin L. Smith, M.D.

Title: Chief Executive Officer

KNOW ALL MEN BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Robin L. Smith and Catherine M. Vaczy, and either of them, as his or her true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this registration statement and any related registration statement filed under Rule 462(b), and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, each acting alone, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully for all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, each acting alone, or his or her substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the date indicated:

Signature	Title	Date
<u>/s/ Robin L. Smith, M.D.</u> Robin L. Smith, M.D.	Director, Chief Executive Officer and Chairman of the Board (Principal Executive Officer)	May 11, 2012
<u>/s/ Larry A. May</u> Larry A. May	Chief Financial Officer (Principal Financial Officer)	May 11, 2012
<u>/s/ Joseph Talamo</u> Joseph Talamo	Vice President, Corporate Controller and Chief Accounting Officer (Principal Accounting Officer)	May 11, 2012
<u>/s/ Richard Berman</u> Richard Berman	Director	May 11, 2012
<u>/s/ Steven S. Myers</u> Steven S. Myers	Director	May 11, 2012
<u>/s/ Drew Bernstein</u> Drew Bernstein	Director	May 11, 2012
<u>/s/ Eric Wei</u> Eric Wei	Director	May 11, 2012
<u>/s/ Edward C. Geehr, M.D.</u> Edward C. Geehr, M.D.	Director	May 11, 2012
<u>/s/ Shi Mingsheng</u> Shi Mingsheng	Director	May 11, 2012
<u>/s/ Andrew L. Pecora, M.D.</u> Andrew L. Pecora, M.D.	Director	May 11, 2012
<u>/s/ Martyn D. Greenacre</u> Martyn D. Greenacre	Director	May 11, 2012

EXHIBIT INDEX

Exhibit Number	Description
4.1	Registrant's Amended and Restated Certificate of Incorporation, as amended (as certified March 25, 2011) (1)
4.2	Certificate of Amendment to Registrant's Amended and Restated Certificate of Incorporation, filed with the Secretary of State of the State of Delaware on October 14, 2011 (2)
4.3	Registrant's Amended and Restated By-Laws dated August 31, 2006 (3)
4.4	NeoStem, Inc. 2009 Equity Compensation Plan, as amended (4)
4.5	Form of Stock Option Grant Agreement under NeoStem, Inc. 2009 Equity Compensation Plan (5)
5.1	Opinion of Lowenstein Sandler PC*
23.1	Consent of Grant Thornton LLP*
23.2	Consent of Deloitte & Touche LLP*
23.3	Consent of Lowenstein Sandler PC (contained in Exhibit 5.1)*
24.1	Power of Attorney (included on the signature page of this registration statement)*

* Filed herewith.

(1) Incorporated by reference to Exhibit 3.1 of Registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 2011, filed with the Securities and Exchange Commission on November 10, 2011.

(2) Incorporated by reference to Exhibit 3.2 of Registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 2011, filed with the Securities and Exchange Commission on November 10, 2011.

(3) Incorporated by reference to Exhibit 3.2 of Registrant's Annual Report on Form 10-K for the year ended December 31, 2010, filed with the Securities and Exchange Commission on April 6, 2011.

(4) Incorporated by reference to Exhibit 10.2 of Registrant's Current Report on Form 8-K dated October 14, 2011, filed with the Securities and Exchange Commission on October 17, 2011.

(5) Incorporated by reference to Exhibit 10(g) of Registrant's Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2010, filed with the Securities and Exchange Commission on August 16, 2010.

May 11, 2012

NeoStem, Inc.
420 Lexington Avenue, Suite 450
New York, New York 10170

Re: Registration Statement on Form S-8

Ladies and Gentlemen:

We have served as special counsel in connection with the preparation of your Registration Statement on Form S-8 (the "Registration Statement") to be filed with the Securities and Exchange Commission under the Securities Act of 1933, as amended (the "Act"), registering 6,000,000 additional shares of your common stock, par value \$0.001 per share (the "Common Stock") (including 3,000,000 shares previously allocated to the NeoStem, Inc. 2009 Non-U.S. Based Equity Compensation Plan which were originally registered on your Form S-8 filed on May 2, 2011 (Registration No. 333-173854)), issuable pursuant to the NeoStem, Inc. 2009 Equity Compensation Plan (the "2009 Plan"), pursuant to the terms and subject to the conditions of the 2009 Plan.

We have examined such corporate records, certificates and other documents and such questions of law as we have considered necessary and appropriate for the purposes of this opinion.

Upon the basis of such examination, we advise you that, in our opinion, the additional shares of Common Stock being registered hereby and issuable under the 2009 Plan will be, when sold, paid for and issued as contemplated by the terms of the 2009 Plan, duly authorized, validly issued, fully paid and non-assessable.

Our opinion herein is expressed solely with respect to the federal laws of the United States and the General Corporation Law of the State of Delaware. Our opinion is based on these laws as in effect on the date hereof.

We hereby consent to the filing of this opinion as an exhibit to the Registration Statement. In giving such consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Act.

Very truly yours,

/s/ LOWENSTEIN SANDLER PC

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We have issued our report dated March 20, 2012, with respect to the consolidated financial statements included in the Annual Report on Form 10-K for the year ended December 31, 2011 of NeoStem, Inc. and subsidiaries, which are incorporated by reference in this Registration Statement. We consent to the incorporation by reference in the Registration Statement of the aforementioned report.

/s/ GRANT THORNTON LLP
New York, New York
May 11, 2012

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement on Form S-8 of our report dated April 5, 2011, relating to the consolidated financial statements of NeoStem, Inc. and subsidiaries as of and for the year ended December 31, 2010, appearing in the Annual Report on Form 10-K of NeoStem, Inc. for the year ended December 31, 2011.

/s/ DELOITTE & TOUCHE LLP

Parsippany, New Jersey
May 11, 2012
