

Registration No. 333-162733

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

POST-EFFECTIVE AMENDMENT NO. 1
TO
FORM S-8
REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

NEOSTEM, INC.

(Exact name of registrant as specified in its charter)

Delaware **22-2343568**

(State or other jurisdiction (I.R.S. employer
of incorporation or organization) identification number)

**420 Lexington Avenue, Suite 350
New York, NY 10170**

(Address of principal executive offices; zip code)

**Amended and Restated NeoStem, Inc. 2009 Equity Compensation Plan
(as amended and restated as of October 5, 2012)**

(Full title of the plan)

**Catherine M. Vaczy, Esq.
Vice President and General Counsel
NeoStem, Inc.**

**420 Lexington Avenue, Suite 350
New York, NY 10170
(212) 584-4180**

(Name, address and 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 Accelerated filer
Non-accelerated filer (Do not check if a Smaller reporting company
smaller reporting company)

EXPLANATORY NOTE

NeoStem, Inc. (the “Company” or the “registrant”) filed a Registration Statement on Form S-8 (Registration No. 333-162733) on October 29, 2009 (the “Original Form S-8 Filing”) to register 4,700,000 shares of the Company's common stock, par value \$0.001 per share (“Common Stock”), for issuance under the NeoStem, Inc. 2009 Non-U.S. Based Equity Compensation Plan (the “2009 Non-U.S. Plan”). On October 5, 2012, the Company's stockholders approved an amendment and restatement of the NeoStem, Inc. 2009 Equity Compensation Plan (as amended and restated, the “Amended and Restated Plan”) to, among other things, (a) reflect the merger of the 2009 Non-U.S. Plan with and into the NeoStem, Inc. 2009 Equity Compensation Plan and (b) increase by 4,500,000 the aggregate number of shares of Common Stock authorized for issuance under the resulting Amended and Restated Plan.

Pursuant to Interpretation #90 of Section G in the Securities and Exchange Commission Division of Corporation Finance's Manual of Publicly Available Telephone Interpretations, the registrant is filing this Post-Effective Amendment No. 1 to the Original Form S-8 Filing solely to indicate that as a result of the above-mentioned merger of equity compensation plans, the 4,700,000 shares of Common Stock originally registered under the Original Form S-8 Filing and allocated for issuance under the 2009 Non-U.S. Plan, have been transferred to (and are now included in the number of shares authorized for issuance under) the Amended and Restated Plan. Outstanding options and awards under the 2009 Non-U.S. Plan as of the date of the merger of the 2009 Non-U.S. Plan with and into the NeoStem, Inc. 2009 Equity Compensation Plan remain outstanding immediately following the merger, but are subject to the terms of the Amended and Restated Plan. We are also updating “Item 3 - Incorporation of Certain Documents by Reference” and the Exhibit Index to this Registration Statement.

Concurrently with the filing of this Post-Effective Amendment No. 1, the registrant will be filing a new Registration Statement on Form S-8 (the “New Form S-8”) which (i) indicates that the 4,700,000 shares of Common Stock originally registered by the Original Form S-8 and allocated for issuance under the 2009 Non-U.S. Plan (together with the 1,000,000 shares of Common Stock originally registered on the registrant's Form S-8 (Registration No. 333-173854) and allocated for issuance under the 2009 Non-U.S. Plan), are being moved to the New S-8 and included in the aggregate share reserve under the Amended and Restated Plan and (ii) registers, among other securities, an additional 4,500,000 shares of Common Stock for issuance under the Amended and Restated Plan. Following the filing of the New Form S-8, there will be an aggregate of 33,950,000 shares of Common Stock registered and authorized for issuance pursuant to the Amended and Restated Plan.

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 documents listed below, except to the extent information in those documents is different from the information contained in this registration statement:

- (a) 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, portions of which have been updated by the Current Report on Form 8-K filed on August 15, 2012.
- (b) 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.
- (c) Our Definitive Proxy Statement on Schedule 14A for our 2012 Annual Meeting of Stockholders, filed with the Securities and Exchange Commission on September 7, 2012.
- (d) Our Quarterly Reports on Form 10-Q for the quarterly periods ended March 31, 2012, June 30, 2012 and September 30, 2012, filed with the Securities and Exchange Commission on May 11, 2012, August 14, 2012 and November 13, 2012, respectively.
- (e) Our Current Reports on Form 8-K and amendments thereto, filed with the Securities and Exchange Commission on January 6, 2012, January 11, 2012, January 12, 2012, January 26, 2012, March 29, 2012, April 5, 2012, June 18, 2012, July 9, 2012, August 15, 2012, August 24, 2012, October 5, 2012, and October 25, 2012 (excluding any information deemed furnished pursuant to Item 2.02 or Item 7.01 of any such Current Report on Form 8-K).
- (f) 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 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 November 13, 2012.

NEOSTEM, INC.

By: /s/ Robin L. Smith

Robin L. Smith, Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that each person whose signature appears below under the heading "Name" constitutes and appoints Robin L. Smith and Catherine M. Vaczy or either of them, his true and lawful attorney-in-fact and agent with full power of substitution and resubstitution, for him and in his 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 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 dates 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)	November 13, 2012
<u>/s/ Larry A. May</u> Larry A. May	Chief Financial Officer (Principal Financial Officer)	November 13, 2012
<u>/s/ Joseph Talamo</u> Joseph Talamo	Vice President, Corporate Controller and Chief Accounting Officer (Principal Accounting Officer)	November 13, 2012
<u>/s/ Richard Berman</u> Richard Berman	Director	November 13, 2012
<u>/s/ Steven S. Myers</u> Steven S. Myers	Director	November 13, 2012
<u>/s/ Drew Bernstein</u> Drew Bernstein	Director	November 13, 2012
<u>/s/ Eric Wei</u> Eric Wei	Director	November 13, 2012
<u>/s/ Andrew L. Pecora, M.D.</u> Andrew L. Pecora, M.D.	Director	November 13, 2012
<u>/s/ Martyn D. Greenacre</u> Martyn D. Greenacre	Director	November 13, 2012

EXHIBIT INDEX

Exhibit Number Description

- 4.1 Amended and Restated Certificate of Incorporation, as amended (as certified March 25, 2011) (1)
- 4.2 Certificate of Amendment to Amended and Restated Certificate of Incorporation, filed with the Secretary of State of the State of Delaware on October 14, 2011 (2)
- 4.3 Certificate of Elimination of the Series E 7% Senior Convertible Preferred Stock of NeoStem, Inc., filed with the Secretary of State of the State of Delaware on October 25, 2012 (3)
- 4.4 Amended and Restated By-Laws dated August 31, 2006 (4)
- 4.5 Amended and Restated NeoStem, Inc. 2009 Equity Compensation Plan (as amended and restated as of October 5, 2012) (5)
- 5.1 Opinion of Lowenstein Sandler PC (6)
- 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) (6)
- 24.1 Power of Attorney (included on the signature page of this registration statement)*

* Filed herewith.

- (1) Incorporated by reference to Exhibit 3.1 to 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 to 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 3.1 to Registrant's Current Report on Form 8-K dated October 25, 2012, filed with the Securities and Exchange Commission on October 25, 2012.
- (4) Incorporated by reference to Exhibit 3.2 to Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2010, filed with the Securities and Exchange Commission on April 6, 2011.
- (5) Incorporated by reference to Appendix B to Registrant's Definitive Proxy Statement on Schedule 14A for Registrant's 2012 Annual Meeting of Stockholders, filed with the Securities and Exchange Commission on September 7, 2012.
- (6) Incorporated by reference to Exhibit 5.1 to Registrant's Registration Statement on Form S-8 (Registration No. 333-162733), filed with the Securities and Exchange Commission on October 29, 2009.

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We have issued our report dated March 20, 2012 (except for Notes 3 and 11, as to which the date is August 14, 2012), with respect to the consolidated financial statements of NeoStem, Inc. and subsidiaries included in the Current Report on Form 8-K, dated August 14, 2012, which is 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
November 13, 2012

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Post-Effective Amendment No. 1 to Registration Statement No. 333-162733 on Form S-8 of our report dated April 5, 2011, relating to the 2010 financial statements (before retrospective adjustments to the financial statements and financial statement disclosures) of NeoStem, Inc. and subsidiaries (not presented herein), (which report expresses an unqualified opinion and includes an explanatory paragraph relating to the fact that Deloitte & Touche LLP was not engaged to audit, review or apply any procedures to (1) the adjustments to retrospectively apply the change in accounting related to the adoption of Financial Accounting Standards Board Accounting Standards Update 2011-05, "Comprehensive Income (Topic 220) - Presentation of Comprehensive Income", and (2) the retrospective adjustments for the discontinued operations discussed in Note 11 to the consolidated financial statements and, accordingly, does not express an opinion or any other form of assurance about whether such retrospective adjustments are appropriate and have been properly applied), appearing in the Current Report on Form 8-K filed with the SEC on August 15, 2012, of NeoStem, Inc.

/s/ DELOITTE & TOUCHE LLP

Parsippany, New Jersey
November 13, 2012