This filing is made pursuant to Rule 424(b)(3) under the Securities Act of 1933, as amended, in connection with Registration No. 333-173855

## PROSPECTUS SUPPLEMENT DATED AUGUST 24, 2012

(To the Prospectus Supplement Dated September 30, 2011 To The Prospectus Dated June 13, 2011)

Extension of 2011 Common Stock Purchase Agreement for NeoStem, Inc. Common Stock

This prospectus supplement amends the prospectus supplement dated September 30, 2011 to the prospectus dated June 13, 2011, relating to the offering of up to \$20,600,000 of our common stock, par value \$0.001 per share ("Common Stock"), to Aspire Capital Fund, LLC ("Aspire Capital") under a Common Stock Purchase Agreement entered into on September 28, 2011 (the "Purchase Agreement"). You should read this prospectus supplement in conjunction with the prospectus supplement dated September 30, 2011 to the prospectus dated June 13, 2011, and this supplement is qualified by reference thereto, except to the extent that the information in this supplement supersedes the information contained in such prospectus supplement.

The Purchase Agreement had initially provided for a term through September 30, 2013. On August 23, 2012 we and Aspire Capital agreed to extend the term of the Purchase Agreement for two additional years (that is, through September 30, 2015). To date, we have not sold any shares of our Common Stock to Aspire Capital pursuant to the September 30, 2011 prospectus supplement, except that the 990,099 shares of our Common Stock representing the Commitment Shares have been issued to Aspire Capital pursuant to such prospectus supplement.

No attempt has been made in this prospectus supplement to modify or update the other information presented in the September 30, 2011 prospectus supplement. This amendment does not reflect events occurring after the filing of the September 30, 2011 prospectus supplement or modify or update those disclosures affected by subsequent events. Accordingly, this amendment should be read in conjunction with the prospectus supplement dated September 30, 2011 and our other filings made with the Securities and Exchange Commission.

Investing in our Common Stock involves risks. See "Risk Factors" beginning on page S-10 of the prospectus supplement dated September 30, 2011 to the prospectus dated June 13, 2011, as updated by the Risk Factors described in our periodic filings with the Securities and Exchange Commission incorporated by reference into the prospectus, including the risk factors set forth under the caption "Risk Factors" beginning on page 38 of our Annual Report on Form 10-K for the year ended December 31, 2011, and "Risk Factors" and "Risks Associated With the Erye Sale and the Equity Purchase Agreement" beginning on page 37 of our Quarterly Report on Form 10-Q for the fiscal quarter ended June 30, 2012.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus supplement or the referenced prospectus supplement or prospectus are truthful or complete. Any representation to the contrary is a criminal offense.

The date of this supplement (to the prospectus supplement dated September 30, 2011 to the prospectus dated June 13, 2011) is August 24, 2012.