

**Prospectus Supplement No. 2
(to Prospectus dated April 16, 2013)**

CELSUS THERAPEUTICS PLC

1,836,380 Ordinary Shares

This prospectus supplement no. 2 supplements the prospectus, dated April 16, 2013 (the "Prospectus"), which forms a part of our Registration Statement on Form F-1 (Registration No. 333-187826). This prospectus supplement is being filed to update, amend and supplement the information included or incorporated by reference in the Prospectus with certain information contained in our current report on Form 6-K, filed with the Securities and Exchange Commission (the "Commission") on February 12, 2014 (the "Current Report"). Accordingly, we have included the information contained in such Current Reports in this prospectus supplement.

The Prospectus and this prospectus supplement relate to the sale or other disposition from time to time of up to an aggregate of 1,836,380 ordinary shares, par value £0.01 per share (the "Ordinary Shares"), represented by American Depository Shares, or ADSs, in the ratio of ten Ordinary Shares to one ADS, which are held by the selling shareholders named in the Prospectus. The Ordinary Shares represented by ADSs that may be offered for sale by the Selling Shareholders pursuant to this prospectus represent (i) Ordinary Shares that have been issued to certain Selling Shareholders and 133% of the number of Ordinary Shares that may be issued upon exercise of certain warrants sold to such Selling Shareholders in multiple closings of a private placement consummated from January through April 2013 (the "2013 Financing") and (ii) Ordinary Shares that have been issued to certain Selling Shareholders and that may be issued upon exercise of certain warrants sold to such Selling Shareholders pursuant to subscription agreements, dated December 2012 through April 2013, by and among such investors and the registrant. We are not selling any Ordinary Shares under the Prospectus and this prospectus supplement and will not receive any of the proceeds from the sale or other disposition of shares by the selling shareholders.

You should read this prospectus supplement in conjunction with the prospectus, including any supplements and amendments thereto. If there is any inconsistency between the information in the Prospectus and this prospectus supplement, you should rely on the information in this prospectus supplement.

Our ADSs are quoted on the NASDAQ Capital Market under the symbol "CLTX". Each ADS represents ten of our Ordinary Shares.

Investing in our ordinary shares and ADSs involves a high degree of risk. You should review carefully the risks and uncertainties described under the heading "Risk Factors" beginning on page 8 of the Prospectus, and under similar headings in any amendment or supplements to the Prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of the Prospectus or this prospectus supplement. Any representation to the contrary is a criminal offense.

The date of this prospectus supplement is February 14, 2014

On February 5, 2014, the Board of Directors of Celsus Therapeutics PLC (the “Company”), based upon the recommendation of the Compensation Committee, approved the payment of bonuses for performance during the fiscal year ended December 31, 2013 in the amount of 33% of current annual base salary, or \$115,500, to Gur Roshwalb, the Company’s Chief Executive Officer, and 25% of current annual base salary, or \$50,000, to Dov Elefant, the Company’s Chief Financial Officer. In addition, the Board of Directors granted to (i) Dr. Roshwalb an option to purchase 120,000 ordinary shares under the Company’s 2007 Share Option Plan (the “Plan”), which shall vest in full on May 31, 2014 subject to continued employment with the Company on such vesting date, at an exercise price equal to the fair market value on the date of the grant, and (ii) Mr. Elefant an option to purchase 40,000 ordinary shares under the Plan, which shall vest in full on May 31, 2014 subject to continued employment with the Company on such vesting date, at an exercise price equal to the fair market value on the date of the grant.

The Board of Directors also granted to each director serving on a committee of the Board of Directors (Mark Cohen, Johnson Lau, David Sidransky, Allan Shaw, Amos Eiran, Fredric Price and Robert Doman) an option to purchase 25,000 ordinary shares under the Company’s Plan, which shall vest in full on May 31, 2014 subject to remaining a director of the Company on such vesting date, at an exercise price equal to the fair market value on the date of the grant. In addition, the Board of Directors granted to (i) each of the Chairman of the Audit Committee (Allan Shaw), Nominating and Corporate Governance Committee (Fredric Price) and Compensation Committee (David Sidransky) an option to purchase 20,000 ordinary shares under the Plan, which shall vest in full on May 31, 2014 subject to remaining a director of the Company on such vesting date, at an exercise price equal to the fair market value on the date of the grant, and (ii) the Chairman of the Board (Mark Cohen) an option to purchase 40,000 ordinary shares under the Plan, which shall vest in full on May 31, 2014 subject to remaining a director of the Company on such vesting date, at an exercise price equal to the fair market value on the date of the grant.

Each ADS represents ten of the Company’s ordinary shares.
