

SUPPLEMENT NO. 2 TO PROSPECTUS SUPPLEMENT DATED DECEMBER 29, 2022
(to Prospectus dated April 14, 2021)



293,398 Shares of Common Stock

Up to \$10,000,000 of Shares of Common Stock

This Supplement No. 2 to Prospectus Supplement (this “Supplement No. 2”) amends and supplements the information in the prospectus, dated April 14, 2021 (the “Prospectus”), to the registration statement on Form S-3 (File No. 333-254980) (the “Form S-3”), and the original prospectus supplement, dated December 29, 2022 (as supplemented by that certain Supplement No. 1 to Prospectus Supplement, dated June 28, 2023 (the “Supplement No. 1”), the “ELOC Prospectus Supplement”), of NeuBase Therapeutics, Inc. (“we”, “us” and “our”). This Supplement No. 2 should be read in conjunction with and is qualified in its entirety by reference to the Prospectus and the ELOC Prospectus Supplement, except to the extent that the information herein amends or supersedes the information contained therein. This Supplement No. 2 is not complete without and may only be delivered or utilized in connection with the Prospectus and the ELOC Prospectus Supplement, and any future amendments or supplements thereto.

We filed the ELOC Prospectus Supplement on December 29, 2022 to register the offer and sale of shares of our common stock, from time to time under the terms of a purchase agreement, dated December 28, 2022 (the “Purchase Agreement”), that we entered into with Alumni Capital LP (“Alumni”). In accordance with the terms of the Purchase Agreement and the ELOC Prospectus Supplement (without giving effect to any offering limit imposed by General Instruction I.B.6 of Form S-3), the Company agreed to issue and sell, and Alumni agreed to purchase, upon request of the Company in one or more transactions, a number of shares of common stock providing aggregate gross proceeds to the Company of up to \$3,000,000 (subject to the right, but not the obligation, of the Company to increase such amount to up to \$10,000,000 pursuant to the terms of the Purchase Agreement) (the “ELOC”). The ELOC is subject to the offering limits of General Instruction I.B.6 of Form S-3, restricting the amount of securities we can offer and sell under the Form S-3 in any rolling 12-month period to one-third of the aggregate market value of our voting and non-voting common stock held by non-affiliates.

The purpose of this Supplement No. 2 is to remove the suspension of our continuous offering under the ELOC pursuant to Supplement No. 1 and, in light of that suspension, to disclose the size of any offering that may currently be made under the Prospectus in a 12-month period, as limited by General Instruction I.B.6 to Form S-3. This size may later change to the extent that our public float changes or we sell additional securities under the Prospectus.

As of June 28, 2023, the aggregate market value of our voting and non-voting common stock held by non-affiliates pursuant to General Instruction I.B.6. of Form S-3 was \$2,125,809, which was calculated based on 1,547,919 outstanding shares of our voting and non-voting common stock held by non-affiliates and at a price of \$4.12 per share, the closing sale price of our common stock reported on the Nasdaq Capital Market on May 22, 2023. During the 12 calendar months prior to and including the date of this Supplement No. 2, we have sold \$1,517,251.29 worth of securities pursuant to General Instruction I.B.6 of Form S-3. As a result, we are currently eligible to offer and sell up to an aggregate of \$608,557.71 of shares of our common stock pursuant to General Instruction I.B.6. of Form S-3.

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 this Supplement No. 2, the ELOC Prospectus Supplement or the Prospectus. Any representation to the contrary is a criminal offense.

The date of this Supplement No. 2 is December 28, 2023.
