

71,068,767 Shares of Common Stock

This prospectus supplement updates, supersedes and amends certain information contained in the prospectus dated December 29, 2023, as supplemented by the prospectus supplement filed on April 2, 2024 (together, the "Original Prospectus") of Biora Therapeutics, Inc. (the "Company"), relating to the offer and resale of up to (i) 26,207,050 shares of common stock issuable upon conversion of \$40,883,000 principal amount of the Company's 11.00% / 13.00% Convertible Senior Secured Notes due 2028 (the "2028 Convertible Notes"), (ii) 27,384,927 shares of common stock that may be issuable (A) in respect of interest payments or make-whole amounts on the 2028 Convertible Notes that the Company settles in shares of common stock or (B) upon conversion of, or in respect of, interest payments or make-whole amounts on any additional 2028 Convertible Notes issuable with respect to interest payments on the 2028 Convertible Notes that are settled in kind (all such shares, the "Interest Payment and Make-Whole Shares"), (iii) 7,352,941 shares of common stock issuable upon the exercise of warrants to purchase common stock with a term of five years that are exercisable six months from the date of issuance and an exercise price of \$1.36 per share (the "Commitment Warrants"), (iv) 5,084,613 shares of common stock issuable upon the exercise of warrants to purchase common stock with a term of five years and an exercise price of \$5.00 per share (the "Additional Warrants"), and (v) 5,039,236 shares of common stock issuable upon the exercise of warrants to purchase common stock with a term of five years and an exercise price of \$5.50 per share (the "Exchange Warrants," and collectively with the Commitment Warrants and the Additional Warrants, the "Warrants"). The 2028 Convertible Notes and the Warrants have been amended as described below under "Amendments to 2028 Convertible Notes and Warrants."

This prospectus supplement should be read in conjunction with the Original Prospectus, and is qualified by reference to the Original Prospectus, except to the extent that the information presented herein supersedes the information contained in the Original Prospectus. This prospectus supplement is not complete without, and may only be delivered or used in connection with, the Original Prospectus, including any amendments or supplements thereto. We may amend or supplement the Original Prospectus from time to time by filing amendments or supplements as required. You should read the entire Original Prospectus and any amendments or supplements carefully before you make an investment decision.

Our common stock is listed on the Nasdaq Global Market under the symbol "BIOR." On August 21, 2024, the last reported sale price of our common stock on the Nasdaq Global Market was \$0.69 per share.

Investing in our securities involves a high degree of risk. See "Risk Factors" in the Original Prospectus and documents incorporated therein by reference for a discussion of such risk factors, which factors should be read carefully in connection with an investment in our securities.

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

AMENDMENTS TO 2028 CONVERTIBLE NOTES AND WARRANTS

This prospectus supplement is being filed to disclose the following:

On August 12, 2024, we entered into a convertible notes exchange agreement (the "Exchange Agreement") with certain institutional investors pursuant to which the Company and the investors agreed to amend and restate the indenture for the 2028 Convertible Notes (the "Amended and Restated Indenture"). In connection with the Exchange Agreement, the Company also entered into warrant amendments (the "Warrant Amendments") with such institutional investors under which the Company agreed to amend certain outstanding warrants, including the Warrants.

Pursuant to the Amended and Restated Indenture, the conversion rate on the 2028 Convertible Notes was reset to 1,321.571348 shares of common stock per \$1,000 principal amount of 2028 Convertible Notes. After giving effect to the transactions contemplated by the Exchange Agreement, the Original Prospectus and this prospectus supplement relate to the offer and resale of up to (i) 26,207,050 shares of common stock issuable upon conversion of \$34,276,670 principal amount of the 2028 Convertible Notes, (ii) 27,384,927 Interest Payment and Make-Whole Shares, (iii) 7,352,941 shares of common stock issuable upon the exercise of the Commitment Warrants, (iv) 5,084,613 shares of common stock issuable upon the exercise of the Additional Warrants, and (v) 5,039,236 shares of common stock issuable upon the exercise of the Exchange Warrants.

Under the Warrant Amendment, the Company agreed to (i) lower the exercise price of each Warrant to \$0.60, (ii) provide that such Warrants, as amended, will not be exercisable in excess of a specified cap set based on the rules of Nasdaq until the Company receives approval from its stockholders with respect to the issuance of shares of common stock issuable upon exercise of the amended Warrants (such date, the "Stockholder Approval Date"), (iii) extend the original expiration date of such Warrants to be five (5) years following the Stockholder Approval Date and (iv) provide that the Company may repurchase 20% of such warrants at a price of \$0.001 per share underlying such warrants, subject to certain conditions. These amendments became effective on August 15, 2024.

Prospectus supplement dated August 23, 2024