

Up to \$50,000,000



BIODESIX, INC.

Common Stock

This Supplement No. 2 to the Prospectus Supplement (this “Supplement No. 2”) supplements and amends the Prospectus Supplement dated December 22, 2021, as supplemented and amended by Supplement No. 1 dated April 5, 2024 (as supplemented and amended, the “Prospectus Supplement”). This Supplement No. 2 should be read in conjunction with the Prospectus Supplement and the Prospectus dated November 29, 2021, filed with the Securities and Exchange Commission as a part of our registration statement on Form S-3 (File No. 333-261095) (the “Prospectus”). This Supplement No. 2 is qualified by reference to the Prospectus Supplement, except to the extent that the information presented herein supersedes the information contained in the Prospectus Supplement.

On November 15, 2021, we entered into a Sales Agreement, dated November 15, 2021 (the “Sales Agreement”), with TD Securities (USA) LLC (f/k/a Cowen and Company, LLC) (“TD Cowen”) relating to shares of our common stock offered by the Prospectus Supplement. In accordance with the terms of the Sales Agreement, we could offer and sell shares of our common stock having an aggregate offering price of up to \$50,000,000 from time to time through TD Cowen pursuant to at-the-market transactions (“ATM”). As of the date of this Supplement No. 2, we have sold an aggregate of 6,403,703 shares of our common stock pursuant to the Sales Agreement for aggregate gross proceeds of \$21,772,134.37. Consequently, up to approximately \$28.2 million remains available under the Sales Agreement pursuant to this Prospectus Supplement.

Our common stock is listed on The NASDAQ Global Market under the symbol “BDSX.” The aggregate market value of our common stock held by non-affiliates as of August 5, 2024 pursuant to General Instruction I.B.6 of Form S-3 is \$116,128,229, which was calculated based on 73,967,025 shares of our common stock outstanding held by non-affiliates and at a price of \$1.57 per share, the closing price of our common stock on August 5, 2024.

Due to the SEC’s “baby shelf rules,” which prohibit companies with a public float of less than \$75 million from issuing securities under a shelf registration statement in excess of one-third of such company’s public float in a 12-month period, on April 5, 2024 we supplemented the Prospectus Supplement to reduce the size of the continuous offering by us under the Prospectus Supplement to up to \$100,000 of shares.

We are no longer subject to the SEC’s “baby shelf rules,” and the purpose of this Supplement No. 2 is to increase the size of the continuous offering by us under the Prospectus Supplement to up to \$50,000,000 of shares, effective on August 7, 2024.

The compensation to TD Cowen for sales of common stock sold pursuant to the Sales Agreement will be an amount equal to 3% of the gross proceeds of any shares of common stock sold under the Sales Agreement. In connection with the sale of the common stock on our behalf, TD Cowen will be deemed to be an “underwriter” within the meaning of the Securities Act and the compensation of TD Cowen will be deemed to be underwriting commissions or discounts. See “Plan of Distribution” beginning on page S-20 of the Prospectus Supplement for additional information regarding the compensation to be paid to TD Cowen. We have also agreed to provide indemnification and contribution to TD Cowen with respect to certain liabilities, including liabilities under the Securities Act or the Securities Exchange Act of 1934, as amended.

We are an “emerging growth company” and a “smaller reporting company” under federal securities laws and as such, have elected to comply with reduced public company reporting requirements for this prospectus and the documents incorporated by reference herein and may elect to comply with reduced public company reporting requirements in future filings. See “Summary—Implications of Being an Emerging Growth Company and Smaller Reporting Company” in the Prospectus Supplement.

Our business and an investment in our common stock involve significant risks. These risks are described under the caption “Risk Factors” beginning on page S-7 of the Prospectus Supplement and in the documents incorporated by reference into the Prospectus.

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

TD Cowen

The date of this Supplement No. 2 to the Prospectus Supplement is August 7, 2024.
