

AMENDMENT NO. 1 DATED April 14, 2023
to Prospectus Supplement dated December 4, 2020
(To Prospectus dated December 4, 2020)



MUSTANG BIO, INC.
Up to \$7,957,618.46
Common Stock

This Amendment No. 1 to Prospectus Supplement (this “Amendment”) amends our prospectus supplement dated December 4, 2020 (the “Prospectus Supplement”). This Amendment should be read in conjunction with the Prospectus Supplement and the accompanying prospectus dated December 4, 2020 (File No. 333-249657) (the “Prospectus”), and is qualified by reference thereto, except to the extent that the information herein amends or supersedes the information contained in the Prospectus Supplement and the Prospectus, and any future amendments or supplements thereto. This Amendment is not complete without, and may only be delivered or utilized in connection with, the Prospectus Supplement and the Prospectus, and any future amendments or supplements.

We entered into an At Market Issuance Sales Agreement with B. Riley Securities, Inc. (formerly B. Riley FBR, Inc.), Cantor Fitzgerald & Co., and H.C. Wainwright & Co., LLC (each an “Agent” and collectively, the “Agents”) dated July 28, 2018, as amended on July 20, 2020 and December 31, 2020 (the “Original Sales Agreement”), relating to shares of our common stock, par value \$0.0001 per share, offered by the Prospectus Supplement and the Prospectus. On April 14, 2023 we further amended the Sales Agreement, pursuant to which the Sales Agreement contemplates the application of General Instruction I.B.6 of Form S-3, pertaining to primary offerings by certain registrants, which includes our Company (the Original Sales Agreement, as so amended, the “Sales Agreement”). The limitations imposed on us by Instruction I.B.6 are described in further detail below. In accordance with the terms of the Sales Agreement, we may offer and sell shares of our common stock having an aggregate offering price of up to \$100,000,000 from time to time through the Agents acting as our sales agents. As of April 11, 2023, we have offered and sold an aggregate of 2,073,270 shares of our common stock pursuant to the Sales Agreement with an aggregate offering price of \$92,042,381.54, all of which shares were sold under General Instruction I.B.1 of Form S-3. Consequently, up to \$7,957,618.46 remains available under the Sales Agreement. In addition, as of the date of this Amendment we had \$7,957,618.46 of securities registered and available for sale pursuant to the Registration Statement on Form S-3 of which the Prospectus forms a part.

Our common stock is listed on the Nasdaq Capital Market under the symbol “MBIO.”

We are filing this Amendment to amend the Prospectus Supplement to update the amount of shares of common stock we are eligible to sell under General Instruction I.B.6 of Form S-3 and pursuant to the Sales Agreement. As of March 30, 2023, which is the date we filed our Annual Report on Form 10-K for the fiscal year ended December 31, 2022, the aggregate market value of our outstanding common stock held by non-affiliates, or the public float, was \$56,413,785.60, which was calculated based on 5,613,312 shares of our outstanding common stock held by non-affiliates as of March 31, 2023, and at a price of \$10.05 per share, the closing price of our common stock on February 15, 2023. In no event will we sell shares of our common stock pursuant to the Prospectus Supplement and the Prospectus, as amended by this Amendment, in an amount greater than the lower of (i) such amount as is registered on our Registration Statement on Form S-3 of which this Prospectus forms a part or, (ii) pursuant to General Instruction I.B.6, an amount with a value, taken together with the aggregate market value of all other securities sold by us or on our behalf pursuant to General Instruction I.B.6 to Form S-3 during the prior 12-month period that ends on and includes the date hereof, of more than one-third of the aggregate market value of our common stock held by non-affiliates in any 12-month period, so long as the aggregate market value of our common stock held by non-affiliates is less than \$75,000,000. As of the date of this Amendment, we have not offered and sold any shares of our common stock pursuant to General Instruction I.B.6 to Form S-3 during the prior 12-month period that ends on and includes the date hereof.

As a result of these limitations and the current public float of our common stock, and in accordance with the terms of the Sales Agreement, we may offer and sell shares of our common stock having an aggregate offering price of up to \$7,957,618.46 from time to time through the Agents.

In addition, on April 3, 2023, we effected a 15-for-1 reverse stock split (the “Reverse Stock Split”) of the shares of common stock, \$0.0001 par value. As a result of the Reverse Stock Split, every 15 shares of our pre-Reverse Stock Split common stock were combined and reclassified as one share of common stock. Proportionate voting rights and other rights of common stockholders were not affected by the Reverse Stock Split, other than as a result of the payment in lieu of issuance of fractional shares. No fractional shares were issued in connection with the Reverse Stock Split. Our common stock began trading on the Nasdaq Stock Market on a post-Reverse Stock Split basis at the open of business on April 4, 2023, with a new CUSIP number of 62818Q203. The par value and other terms of our common stock were not affected by the Reverse Stock Split. Numbers of shares and calculations relating thereto in this Amendment are presented on a post-Reverse Stock Split basis.

Investing in our common stock involves a high degree of risk. Before making an investment decision, please read the information under the heading “Risk Factors” in the Prospectus Supplement, the Prospectus and the documents incorporated by reference therein.

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

B. Riley Securities

Cantor

H.C. Wainwright & Co.

The date of this Amendment No. 1 to Prospectus Supplement is April 14, 2023.
