

PROSPECTUS SUPPLEMENT
(To Prospectus dated April 2, 2026)



ImageBio, Inc.

2,508,337 Shares of Common Stock

This prospectus supplement supplements the prospectus dated April 2, 2026 (the “Prospectus”), which forms a part of our registration statement on Form S-1 (No. 333-290108), as amended. This prospectus supplement is being filed to update and supplement the information in the Prospectus with certain information contained in our Quarterly Report on Form 10-Q, filed with the Securities and Exchange Commission on May 7, 2026 (the “Quarterly Report”). Accordingly, we have attached the Quarterly Report in relevant part to this prospectus supplement.

The Prospectus and this prospectus supplement relate to the proposed offer and resale or other disposition from time to time by the selling stockholders identified in this prospectus of 2,508,337 shares of common stock, par value \$0.001 per share, (the “Common Stock”) of ImageBio, Inc.

Our Common Stock is listed on the Nasdaq Capital Market under the ticker symbol “IMA.” On May 6, 2026, the last reported sales price of our Common Stock was \$6.08 per share.

This prospectus supplement should be read in conjunction with the Prospectus, including any amendments or supplements to it, which is to be delivered with this prospectus supplement. This prospectus supplement is qualified by reference to the Prospectus, including any amendments or supplements thereto, except to the extent that the information provided by this prospectus supplement supersedes information contained in the Prospectus.

This prospectus supplement is not complete without, and may not be delivered or used except in conjunction with, the Prospectus, including any amendments or supplements to it.

Investing in our securities involves a high degree of risk. You should review carefully the risks and uncertainties described in the section titled “Risk Factors” beginning on page 6 of the Prospectus, and under similar headings in any amendments 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 accuracy or adequacy of this prospectus supplement. Any representation to the contrary is a criminal offense.

The date of this prospectus supplement is May 7, 2026