### UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

### **SCHEDULE 14A**

Proxy Statement Pursuant to Section 14(a) of the Securities Exchange Act of 1934 (Amendment No. )

Filed by the Registrant x

Filed by a party other than the Registrant  $\Box$ 

Check the appropriate box:

- Preliminary Proxy Statement
- □ Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))
- Definitive Proxy Statement
- x Definitive Additional Materials
- □ Soliciting Material Pursuant to §240.14a-12

## bluebird bio, Inc.

(Name of Registrant as Specified In Its Charter)

(Name of Person(s) Filing Proxy Statement, if Other Than The Registrant)

#### Payment of Filing Fee (Check all boxes that apply):

- x No fee required.
- □ Fee paid previously with preliminary materials.
- Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.

Commencing on October 25, 2024, bluebird bio, Inc. plans to provide the following communication to its stockholders.



October 25, 2024

Fellow stockholders -

We previously sent you proxy materials for the Annual Meeting of Stockholders of bluebird bio, Inc. to be held on November 6, 2024. We are asking that you vote FOR each of the proposals on the agenda, including Proposals 4 and 5 related to the reverse stock split of our common stock and the amendment and restatement of our 2023 incentive award plan. Each of the proposals presented in the proxy statement has been unanimously recommended by the bluebird bio Board of Directors.

# Additionally, the independent proxy advisory firms ISS and Glass Lewis both recently issued recommendations in favor of Proposals 4 and 5.

Your vote is important, no matter how many or how few shares you may own, and these proposals are essential for bluebird to continue to be able to make gene therapy a reality for patients.

bluebird has long been a leader in the field of gene therapy – first setting the standard for clinical research and development and today, as the only independent biotech company commercializing three FDA-approved gene therapies. However, the Company is also trading far below the value we believe it can offer our stockholders, and we need to take decisive action to extend our cash runway and strengthen our balance sheet.

In September, we outlined a path designed to enable cash-flow breakeven in the second half of 2025 assuming we are able to achieve approximately 40 drug product deliveries per quarter, and that we obtain additional cash resources to extend our runway.

To successfully execute these plans, it is imperative that stockholders vote in favor of this year's proxy proposals. The proxy votes - including Proposals 4 and 5 - would enable us to:

- 1. Effect a reverse stock split, thus facilitating ongoing compliance with Nasdaq's minimum bid price requirement, which we believe would increase the attractiveness of bluebird bio to institutional investors.
- 2. Increase the number of shares on a relative basis that the Company is authorized to issue, which would enable future potential financing.
- 3. Maintain and attract talent to our Company through the ability to issue equity awards under our incentive plan.

If you have not voted, please vote today. If you have already voted, thank you for participating in this process. If you voted against Proposal 4 or Proposal 5, we ask that you please reconsider your vote based on the factors described in this letter.

The proxy statement for the Annual Meeting of Stockholders of bluebird bio filed on September 26, 2024 contains important information and this letter should be read in conjunction with the proxy

statement, which, along with other relevant materials, is available at no charge at the U.S. Securities & Exchange Commission's website www.sec.gov and at the Company's website https://investor.bluebirdbio.com/sec-filings

We appreciate your continued support of bluebird bio.

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Andrew Obenshain President & Chief Executive Officer

#### REMEMBER:

You can vote by telephone, or via the Internet. Please follow the easy instructions on the enclosed proxy card.

If you have any questions, or need assistance in voting your shares, please call our proxy solicitor,

INNISFREE M&A INCORPORATED TOLL-FREE, at 1-877-750-0854.