Form 144 Filer Information UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

Form 144

FORM 144

NOTICE OF PROPOSED SALE OF SECURITIES PURSUANT TO RULE 144 UNDER THE SECURITIES ACT OF 1933

144: Filer Information

Filer CIK0001839697Filer CCCXXXXXXXIs this a LIVE or TEST Filing?Is LIVE INFORMATIONSubmission Contact InformationImage: Contact Information

Name Phone E-Mail Address

144: Issuer Information

Name of Issuer SEC File Number

Address of Issuer

Phone

Name of Person for Whose Account the Securities are To Be Sold

See the definition of "person" in paragraph (a) of Rule 144. Information is to be given not only as to the person for whose account the securities are to be sold but also as to all other persons included in that definition. In addition, information shall be given as to sales by all persons whose sales are required by paragraph (e) of Rule 144 to be aggregated with sales for the account of the person filing this notice.

Relationship to Issuer Relationship to Issuer Officer Director

bluebird bio, Inc.

c/o bluebird bio. Inc.

MASSACHUSETTS

Obenshain Andrew

455 Grand Union Boulevard

001-35966

Somerville

3394999300

02145

144: Securities Information

| Title of the Class of Securities To Be Sold | Name and Address of the Broker | Number of Shares or Other Units To Be Sold | Aggregate Market Value | | Approximate Date of Sale | Name the Securities Exchange |
|--|---|---|------------------------------|-----------|-----------------------------|------------------------------------|
| Common | Morgan Stanley 1500 - 600 3 Ave SW Calgary A0 T2P 0G5 | 971 | 436.95 | 194444345 | 12/10/2024 | NASDAQ |

Furnish the following information with respect to the acquisition of the securities to be sold and with respect to the payment of all or any part of the purchase price or other consideration therefor:

144: Securities To Be Sold

Title of the Name of Is Date Amount of Date of Nature of Date you Nature of Class Person from this Donor **Securities** Payment * Acquired Acquisition **Payment**

| | Transaction | Whom Acquired | a Acquire Gift? | d Acquired | |
|--------|---|------------------|--------------------|------------|------------------------------|
| Common | Vested restricted stock units under company equity plan; sale of shares due to withholding taxes | Issuer | | 2585 | 11/02/2024 Services rendered |

* If the securities were purchased and full payment therefor was not made in cash at the time of purchase, explain in the table or in a note thereto the nature of the consideration given. If the consideration consisted of any note or other obligation, or if payment was made in installments describe the arrangement and state when the note or other obligation was discharged in full or the last installment paid.

Furnish the following information as to all securities of the issuer sold during the past 3 months by the person for whose account the securities are to be sold.

144: Securities Sold During The Past 3 Months

| Name and Address of Seller | Title of Securities Sold | Date of Sale | Amount of Securities Sold | Gross Proceeds |
|--|--------------------------|-----------------|---------------------------------|-----------------------|
| Andrew Obenshain c/o bluebird bio, Inc. 455 Grand Union Boulevard Somerville MA 02145 | Common | 09/30/2024 | 34780 | 18269.00 |

144: Remarks and Signature

| Remarks | Shares to be sold to cover withholding taxes upon vesting of restricted stock unit awards pursuant to standing Rule 10b5-1 sell to cover instruction. |
|--|---|
| Date of Notice | 12/10/2024 |
| Date of Plan Adoption or Giving of Instruction, If Relying on Rule 10b5-1 | 05/10/2023 |
| ATTENTION: | |

The person for whose account the securities to which this notice relates are to be sold hereby represents by signing this notice that he does not know any material adverse information in regard to the current and prospective operations of the Issuer of the securities to be sold which has not been publicly disclosed. If such person has adopted a written trading plan or given trading instructions to satisfy Rule 10b5-1 under the Exchange Act, by signing the form and indicating the date that the plan was adopted or the instruction given, that person makes such representation as of the plan adoption or instruction date.

Signature

/s/ Sydney Gaylin, attorney-in-fact for Andrew Obenshain

ATTENTION: Intentional misstatements or omission of facts constitute Federal Criminal Violations (See 18 U.S.C. 1001)