

Form 144

FORM 144

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

144: Filer Information

Filer CIK 0001181548
Filer CCC XXXXXXXXX
Is this a LIVE or TEST Filing? LIVE TEST

Submission Contact Information

Name
Phone
E-Mail Address

144: Issuer Information

Name of Issuer IONIS PHARMACEUTICALS INC
SEC File Number 000-19125
Address of Issuer 2855 GAZELLE COURT
CARLSBAD
CALIFORNIA
92010
Phone 7609319200
Name of Person for Whose Account the Securities are To Be Sold BERTHELSEN SPENCER R

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 Director

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 | Number of Shares or Other Units Outstanding | Approximate Date of Sale | Name the Securities Exchange |
|---|--|--|------------------------|---|--------------------------|------------------------------|
| Common | Fidelity Brokerage Services LLC 900 Salem Street Smithfield RI 02917 | 8000 | 605360.00 | 165262556 | 06/01/2026 | 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 Class | Date you Acquired | Nature of Acquisition Transaction | Name of Person from | Is this | Date Donor Acquired | Amount of Securities Acquired | Date of Payment | Nature of Payment * |
|--------------------|-------------------|-----------------------------------|---------------------|---------|---------------------|-------------------------------|-----------------|---------------------|
|--------------------|-------------------|-----------------------------------|---------------------|---------|---------------------|-------------------------------|-----------------|---------------------|

| | | | Whom Acquired | a Gift? | | |
|--------|------------|---------------------------------|------------------|--------------------------|------|-----------------|
| Common | 06/01/2026 | Options Granted - 07/01/2016 | Issuer | <input type="checkbox"/> | 8000 | 06/01/2026 Cash |

* 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

Nothing to Report

144: Remarks and Signature

Remarks

Date of Notice 06/01/2026

Date of Plan Adoption or Giving of
Instruction, If Relying on Rule 10b5-1 09/09/2025

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/ Jennifer Ruchti, as a duly authorized representative of Fidelity Brokerage
Services LLC, as attorney-in-fact for Spencer R. Berthelsen

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