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

Form 144

FORM 144/A

NOTICE OF PROPOSED SALE OF SECURITIES

PURSUANT TO RULE 144 UNDER THE SECURITIES ACT OF 1933

144/A: Filer Information

Filer CIK 0001073387 Filer CCC XXXXXXXX

Previous Accession Number Of The Filing 0000048532-23-000019

Is this a LIVE or TEST Filing?

LIVE TEST

Submission Contact Information

Name

Phone

E-Mail Address

144/A: Issuer Information

Name of Issuer IONIS PHARMACEUTICALS INC

SEC File Number 000-19125

2855 GAZELLE COURT

Address of Issuer CARLSBAD
CALIFORNIA

CALIFORNIA

92010

Phone 7609319200

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

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 Officer

144/A: 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 STOCK | INSIGHT SECURITIES, INC. 600 CENTRAL STE 293 HIGHLAND PARK IL 60035 | 22612 | 1121196.00 | 143100000 | 12/14/2023 | NYSE |

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/A: Securities To Be Sold

| Title of the Class | Date you Acquired | Nature of Acquisition Transaction | Name of Person from Whom Acquired | Is this a Gift? | Donor Acquired | Amount of Securities Acquired | Payment | Nature of Payment * |
|-----------------------|----------------------|---|--------------------------------------|-----------------|-------------------|--|--------------|---------------------|
| COMMON STOCK | 12/14/2023 | COMPENSATION | IONIS PHARMACEUTICALS, INC. | | | 22612 | 12/14/2023 C | OMPENSATION |

^{*} 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/A: 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 |
|----------------------------|--------------------------|--------------|---------------------------------|-----------------------|
| FRANK C. BENNETT | | | | |
| 2855 GAZELLE COURT | COMMON STOCK | 09/28/2023 | 4460 | 207390.00 |
| CARLSBAD CA 92010 | | | | |

144/A: Remarks and Signature

INSIGHT SECURITIES SOLD 22,612 SHARES OF IONIS PHARMACEUTICALS, INC. FOR FRANK C. BENNETT. FILED 144/A TO CORRECT DATE OF ACQUISITION AND

DATE OF PAYMENT

Date of Notice 12/22/2023

Date of Plan Adoption or Giving

of Instruction, If Relying on Rule 06/29/2023

10b5-1

Remarks

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 MICHAEL MAKULA

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