Form 144 Filer Information 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 CIK0001537529Filer CCCXXXXXXXIs this a LIVE or TEST Filing?Is LIVE TESTSubmission Contact InformationIs this a Live of the second secon

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

144: Securities Information

Title of the Class of Securities To Be Sold	Name and Address of the Broker		Aggregate Market Value			Name the Securities Exchange
COMMON STOCK	INSIGHT SECURITIES, INC. 600 CENTRAL STE 293 HIGHLAND PARK IL 60030	4931	197907.16	143100000	05/22/2023	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: Securities To Be Sold

IONIS PHARMACEUTICALS, INC. 000-19125 2855 GAZELLE COURT CARLSBAD CALIFORNIA 92010 7609319200 Monia Brett P

Title of the Class	Date you Acquired	Nature of Acquisition Transaction	Name of Person from Whom Acquired	Date Donor Acquired	Amount of Securities Acquired	Date of Payment	Nature of Payment *
COMMON STOCK	01/15/2019 (COMPENSATION	IONIS PHARMACUETICALS, INC.		7117	01/15/2019	COMPENSATION

* 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 **V**

144: Remarks and Signature

Remarks

INSIGHT SECURITIES SOLD 4,931 SHARES OF IONIS PHARMACEUTICALS,INC. FOR ITS CEO BRETT MONIA. THIS IS A CORRECTION OF THE PREVIOUS 144 FILING TO CHANGE THE NAME OF THE PERSON FOR WHOSE ACCOUNT THE SECURITIES ARE TO BE SOLD FROM INSIGHT SECURITIES, INC. TO BRETT MONIA.

Date of Notice 05/22/2023 Date of Plan Adoption or Giving of Instruction, If 11/11/2022 Relying on Rule 10b5-1 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)