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 CIK0001564926Filer CCCXXXXXXXIs this a LIVE or TEST Filing?IVE TESTSubmission Contact InformationIVE

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

144: Securities Information

Title of the Class of Securities To Be Sold	Common Stock
	ETrade by Morgan Stanley
Name and Address of the Broker	200 Hudson Street, Suite 501
	New Jersey
	NJ
	07311
Number of Shares or Other Units To Be Sold	9000
Aggregate Market Value	369000.00
Number of Shares or Other Units Outstanding	142050000
Approximate Date of Sale	01/18/2023
Name the Securities Exchange	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

IONIS PHARMACEUTICALS INC 000-19125 2855 GAZELLE COURT CARLSBAD CALIFORNIA 92010 7609319200 O'NEIL PATRICK R.

Officer

Title of the Class	Common	
Date you Acquired	01/17/2023	
Nature of Acquisition Transaction	RSUs granted under the 2011 Equity Incentive Plan	
Name of Person from Whom Acquired Ionis Pharmaceuticals Inc		
Is this a Gift? Checkbox Date Donor not checked Acquired		
Amount of Securities Acquired	9000	
Date of Payment	01/18/2023	
Nature of Payment	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

Nothing to Report 📝

144: Remarks and Signature

Remarks Date of Notice *ATTENTION*:

01/18/2023

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 Patrick R. O'Neil

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