

ASSIGNMENT

WHEREAS WE, the below-named inventors (hereinafter referred to as Assignors), of an invention entitled:

MODULATORS OF ALPHA-1 ANTITRYPSIN

as disclosed and claimed in:

Application Number	Country of Filing	Filing Date
63/405,080	United States	September 9, 2022
63/489,543	United States	March 10, 2023

and in the applications identified in the table below claiming priority to U.S. Provisional Application Nos. 63/405,080 and 63/489,543:

Application Number*	Country of Filing	Filing Date*
PCT/US2023/032282	PCT	September 8, 2023
P20230102391	Argentina	September 8, 2023
12891	Lebanon	September 7, 2023
599/2023	Pakistan	September 7, 2023
112134315	Taiwan	September 8, 2023
40419	Uruguay	September 8, 2023
18/463,796	United States	September 8, 2023
2023-000199	Venezuela	September 8, 2023

* WE authorize and request a patent practitioner of record in the above-referenced applications to insert the filing date and application number of the applications when known.

by virtue of our agreements with Vertex Pharmaceuticals Incorporated, a corporation of Massachusetts whose post office address is 50 Northern Avenue, Boston, Massachusetts 02210, USA (hereinafter referred to as Assignee), confirm assignment and hereby assign to Assignee the entire right, title, and interest in and to this invention in all countries throughout the world, and in and to all applications for patents on this invention in all countries throughout the world, including any PCT International Application and all national stage applications based thereon that may be filed, and all patents issued upon such applications in all countries throughout the world;

NOW THEREFORE, be it known that, for good and valuable consideration, the receipt of which from Assignee is hereby acknowledged, WE, as Assignors, confirm that all rights in the inventions and applications listed above have already transferred to Assignee by virtue of our agreements. For the avoidance of doubt, Assignors hereby confirm having sold, assigned, transferred, and set over, and do hereby sell, assign, transfer,

and set over unto the Assignee, its lawful successors and assigns, our entire right, title, and interest in and to this invention, the above-referenced applications that disclose and/or claim this invention, any PCT International Application and all national stage applications based thereon that may be filed, any other applications for patents filed anywhere in the world that claim this invention, and all divisions, and continuations of any such application, and all patents which may be granted thereon, and all reissues thereof, and all rights to claim priority in any country on the basis of any such applications, and all extensions, renewals, and reissues thereof; and WE hereby authorize and request that any official of any country whose duty it is to issue patents on applications as described above, to issue all Letters Patent for this invention to Assignee, its successors and assigns, in accordance with the terms of this Assignment;

AND, WE covenant that WE have not executed and will not execute any agreement in conflict with this Assignment;

AND, WE further covenant and agree that WE will, without further consideration, communicate with Assignee, its successors and assigns, any facts known to us respecting this invention, and testify in any legal proceeding, sign all lawful papers when called upon to do so, execute and deliver any and all papers that may be necessary or desirable to perfect the title to this invention in said Assignee, its successors or assigns, execute all divisional, continuation, and reissue applications, make all rightful oaths and generally do everything possible to aid Assignee, its successors and assigns, to obtain and enforce proper patent protection for this invention in the United States and any foreign country, it being understood that any expense incident to the execution of such papers shall be borne by the Assignee, its successors and assigns.

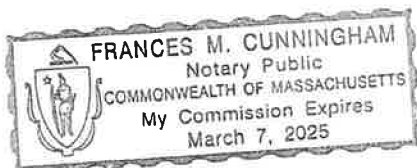
IN TESTIMONY WHEREOF, WE have hereunto set our hands:

Emily Elizabeth Allen
Emily Elizabeth ALLEN
Date: 8/29/23

Commonwealth of Massachusetts
County of Suffolk

On this 29th day of August, 2023, before me, the undersigned notary public, personally appeared Emily Elizabeth ALLEN (name of document signer), proved to me through satisfactory evidence of identification, which was/were ☒ personal knowledge of identity, ☐ a driver's license, ☐ other (please identify) _____, to be the person whose name is signed on this document, and who swore or affirmed to me that the contents of the document are truthful and accurate to the best of his/her knowledge and belief.

Frances M. Cunningham
Notary Public
My Commission Expires March 7, 2025



Michael Boyd
Michael J. BOYD
Date: August 31, 2023

Commonwealth of Massachusetts
County of NORFOLK.

On this 31 day of August, 2023, before me, the undersigned notary public, personally appeared Michael J. BOYD (name of document signer), proved to me through satisfactory evidence of identification, which was/were ☐ personal knowledge of identity, ☒ a driver's license, ☐ other (please identify) N/A, to be the person whose name is signed on this document, and who swore or affirmed to me that the contents of the document are truthful and accurate to the best of his/her knowledge and belief.

Charlie A. Helou
Notary Public
My Commission Expires Feb. 23, 2029



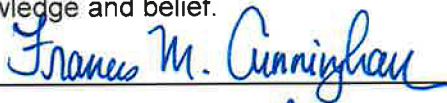


Robert F. FIMOGNARI, JR.

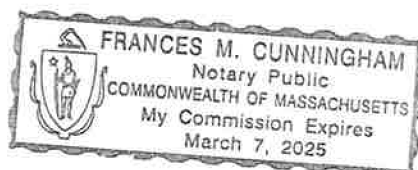
Date: 08/29/2023

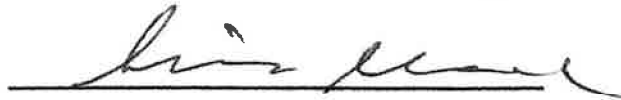
Commonwealth of Massachusetts
County of Suffolk

On this 29th day of August, 2023, before me, the undersigned notary public, personally appeared Robert F. FIMOGNARI, Jr. (name of document signer), proved to me through satisfactory evidence of identification, which was/were ☒ personal knowledge of identity, ☐ a driver's license, ☐ other (please identify) _____, to be the person whose name is signed on this document, and who swore or affirmed to me that the contents of the document are truthful and accurate to the best of his/her knowledge and belief.



Notary Public
My Commission Expires March 7, 2025



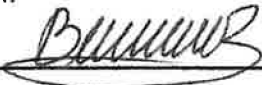


Simon GIROUX

Date: 09/06/23

Commonwealth of Massachusetts
County of MIDDLESEX

On this 06th day of September, 2023, before me, the undersigned notary public, personally appeared Simon GIROUX (name of document signer), proved to me through satisfactory evidence of identification, which was/were ☐ personal knowledge of identity, ☒ a driver's license, ☐ other (please identify) SIMON GIROUX, to be the person whose name is signed on this document, and who swore or affirmed to me that the contents of the document are truthful and accurate to the best of his/her knowledge and belief.



Notary Public
My Commission Expires 05-22-2026





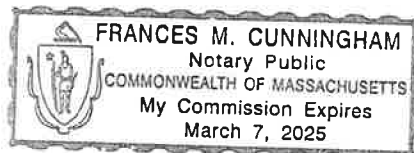
Ronald Lee GREY, JR.
Date: 08/29/2023

Commonwealth of Massachusetts
County of Suffolk

On this 29th day of August, 2023, before me, the undersigned notary public, personally appeared Ronald Lee GREY, Jr. (name of document signer), proved to me through satisfactory evidence of identification, which was/were ☒ personal knowledge of identity, ☐ a driver's license, ☐ other (please identify) _____, to be the person whose name is signed on this document, and who swore or affirmed to me that the contents of the document are truthful and accurate to the best of his/her knowledge and belief.



Notary Public
My Commission Expires March 7, 2025



Michelle Lai-Chen

Michelle LAI-CHEN

Date: 8/30/2023

Commonwealth of Massachusetts
County of Suffolk

On this 30 day of August, 2023, before me, the undersigned notary public, personally appeared Michelle LAI-CHEN (name of document signer), proved to me through satisfactory evidence of identification, which was/were ☐ personal knowledge of identity, ☐ a driver's license, ☒ other (please identify) work ID, to be the person whose name is signed on this document, and who swore or affirmed to me that the contents of the document are truthful and accurate to the best of his/her knowledge and belief.

Nancy McCoy
Notary Public
My Commission Expires 2/1/2030



Li

Mengqi LI

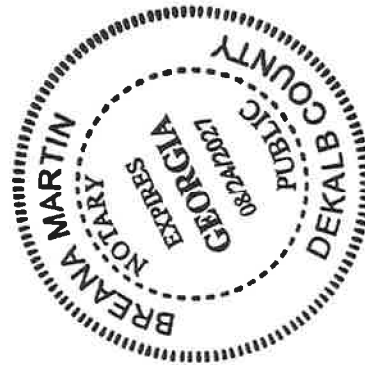
Date: August 31, 2023

State of Georgia
County of DeKalb

On this 31 day of August, 2023, before me, the undersigned notary public, personally appeared Mengqi LI (name of document signer), proved to me through satisfactory evidence of identification, which was/were ☐ personal knowledge of identity, ☒ a driver's license, ☐ other (please identify) _____, to be the person whose name is signed on this document, and who swore or affirmed to me that the contents of the document are truthful and accurate to the best of his/her knowledge and belief.

Breana Martin

Notary Public
My Commission Expires 08/24/2027





Ales MEDEK

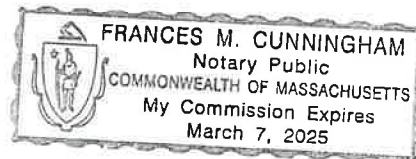
Date: 29 AUG 2023

Commonwealth of Massachusetts
County of Suffolk

On this 29th day of August, 2023, before me, the undersigned notary public, personally appeared Ales MEDEK (name of document signer), proved to me through satisfactory evidence of identification, which was/were ☒ personal knowledge of identity, ☐ a driver's license, ☐ other (please identify) _____, to be the person whose name is signed on this document, and who swore or affirmed to me that the contents of the document are truthful and accurate to the best of his/her knowledge and belief.



Notary Public
My Commission Expires March 7, 2025



Christopher David Poff

Christopher David POFF

Date: 8/30/23

Commonwealth of Massachusetts

County of Suffolk

On this 30 day of August, 2023, before me, the undersigned notary public, personally appeared Christopher David POFF (name of document signer), proved to me through satisfactory evidence of identification, which was/were ☐ personal knowledge of identity, ☐ a driver's license, ☒ other (please identify) work ID, to be the person whose name is signed on this document, and who swore or affirmed to me that the contents of the document are truthful and accurate to the best of his/her knowledge and belief.

Nancy C. McCoy
Notary Public
My Commission Expires 2/1/2030





Daniel Tyler RICHTER

Date: 8/29/2023

Commonwealth of Massachusetts

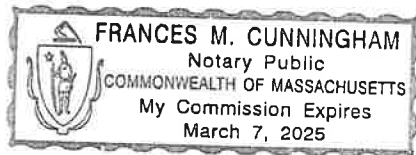
County of Suffolk

On this 29th day of August, 2023, before me, the undersigned notary public, personally appeared Daniel Tyler RICHTER (name of document signer), proved to me through satisfactory evidence of identification, which was/were ☐ personal knowledge of identity, ☒ a driver's license, ☐ other (please identify) _____, to be the person whose name is signed on this document, and who swore or affirmed to me that the contents of the document are truthful and accurate to the best of his/her knowledge and belief.



Notary Public

My Commission Expires March 7, 2025



Tony Z. SCOTT

Tony Z. SCOTT

Date: 8/29/2023

Commonwealth of Massachusetts

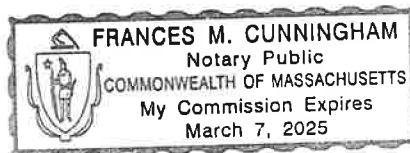
County of Suffolk

On this 29th day of August, 2023, before me, the undersigned notary public, personally appeared Tony Z. SCOTT (name of document signer), proved to me through satisfactory evidence of identification, which was/were ☐ personal knowledge of identity, ☒ a driver's license, ☐ other (please identify) _____, to be the person whose name is signed on this document, and who swore or affirmed to me that the contents of the document are truthful and accurate to the best of his/her knowledge and belief.

Frances M. Cunningham

Notary Public

My Commission Expires March 7, 2025



Kathleen Paige Sokolowsky
Kathleen Paige SOKOLOWSKY

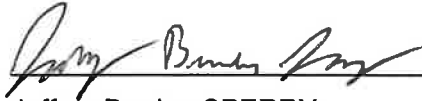
Date: 30-Aug-2023

Commonwealth of Massachusetts
County of Suffolk

On this 30 day of August, 2023, before me, the undersigned notary public, personally appeared Kathleen Paige SOKOLOWSKY (name of document signer), proved to me through satisfactory evidence of identification, which was/were ☐ personal knowledge of identity, ☒ a driver's license, ☐ other (please identify) _____, to be the person whose name is signed on this document, and who swore or affirmed to me that the contents of the document are truthful and accurate to the best of his/her knowledge and belief.

Nancy McCoy
Notary Public
My Commission Expires 2/1/2030

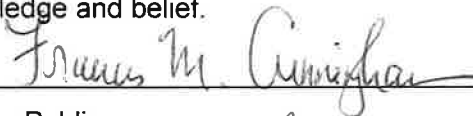


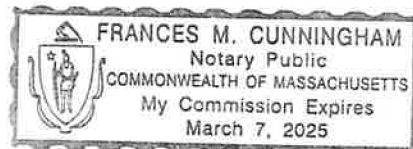

Jeffrey Braden SPERRY

Date: 8/31/2023

Commonwealth of Massachusetts
County of Suffolk

On this 31st day of August, 2023, before me, the undersigned notary public, personally appeared Jeffrey Braden SPERRY (name of document signer), proved to me through satisfactory evidence of identification, which was/were ☒ personal knowledge of identity, ☐ a driver's license, ☐ other (please identify) _____, to be the person whose name is signed on this document, and who swore or affirmed to me that the contents of the document are truthful and accurate to the best of his/her knowledge and belief.


Notary Public
My Commission Expires March 7, 2025





Charlene TSAY

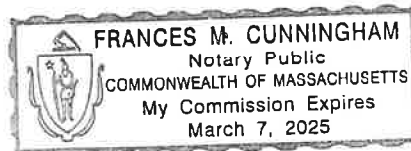
Date: Aug. 29, 2023

Commonwealth of Massachusetts
County of Suffolk

On this 29th day of August, 2023, before me, the undersigned notary public, personally appeared Charlene TSAY (name of document signer), proved to me through satisfactory evidence of identification, which was/were ☐ personal knowledge of identity, ☐ a driver's license, ☒ other (please identify) employment ID, to be the person whose name is signed on this document, and who swore or affirmed to me that the contents of the document are truthful and accurate to the best of his/her knowledge and belief.

Frances M. Cunningham

Notary Public
My Commission Expires March 7, 2025





Xiaoxu WANG

Date: 08/29/2023

Commonwealth of Massachusetts

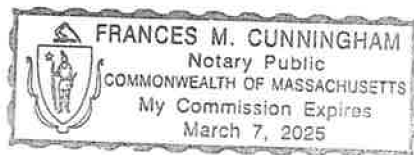
County of Suffolk

On this 29th day of August, 2023, before me, the undersigned notary public, personally appeared Xiaoxu WANG (name of document signer), proved to me through satisfactory evidence of identification, which was/were ☐ personal knowledge of identity, ☐ a driver's license, ☒ other (please identify) employment ID, to be the person whose name is signed on this document, and who swore or affirmed to me that the contents of the document are truthful and accurate to the best of his/her knowledge and belief.



Notary Public

My Commission Expires March 7, 2025



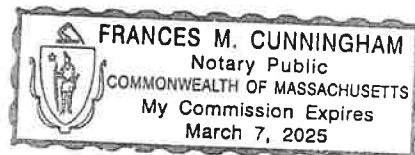
Mariam Zaky
Mariam ZAKY

Date: 08/29/2023

Commonwealth of Massachusetts
County of Suffolk

On this 29th day of August, 2023, before me, the undersigned notary public, personally appeared Mariam ZAKY (name of document signer), proved to me through satisfactory evidence of identification, which was/were ☒ personal knowledge of identity, ☐ a driver's license, ☐ other (please identify) _____, to be the person whose name is signed on this document, and who swore or affirmed to me that the contents of the document are truthful and accurate to the best of ~~his~~ her knowledge and belief.

Frances M. Cunningham
Notary Public
My Commission Expires March 7, 2025



Chenlong Zhang

Chenlong ZHANG

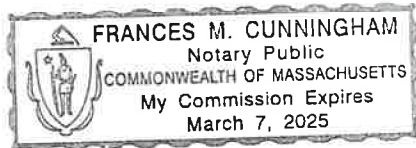
Date: 8/29/2023

Commonwealth of Massachusetts
County of Suffolk

On this 29th day of August, 2023, before me, the undersigned notary public, personally appeared Chenlong ZHANG (name of document signer), proved to me through satisfactory evidence of identification, which was/were ☐ personal knowledge of identity, ☐ a driver's license, ☒ other (please identify) employment ID, to be the person whose name is signed on this document, and who swore or affirmed to me that the contents of the document are truthful and accurate to the best of his/her knowledge and belief.

Frances M. Cunningham

Notary Public
My Commission Expires March 7, 2025



ACKNOWLEDGEMENT OF ASSIGNEE

On behalf of Vertex Pharmaceuticals Incorporated:

Adrian G. Looney

Name: Adrian G. Looney

Title: Vice President, Chief Intellectual Property Officer

September 7, 2023

Date

Commonwealth of Massachusetts

County of Suffolk

On this 7th day of September, 2023, before me, the undersigned notary public, personally appeared Adrian G. Looney (name of document signer), proved to me through satisfactory evidence of identification, which was/were ☐ personal knowledge of identity, ☐ a driver's license, ☐ other (please identify) _____, to be the person whose name is signed on this document, and who swore or affirmed to me that the contents of the document are truthful and accurate to the best of his knowledge and belief.

Frances M. Cunningham

Notary Public

My Commission Expires March 7, 2025

