

ASSIGNMENT

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

PROCESS OF MAKING CFTR MODULATORS

as disclosed and claimed in United States Provisional Application No 62/886,660 filed on August 14, 2019 and in the applications identified in the table below, which claim priority to United States Provisional Application No. 62/886,660:

Application Number*	Country of Filing	Filing Date
PCT/US20/46116	PCT	August 13, 2020
16/992,419	US	August 13, 2020
P20200102307	AR	August 13, 2020
109127315	TW	August 12, 2020
38837	UY	August 13, 2020
2020-000123	VE	August 13, 2020

* We authorize and request that the filing date and application number of the above referenced applications be inserted into this document 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 automatically 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 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.

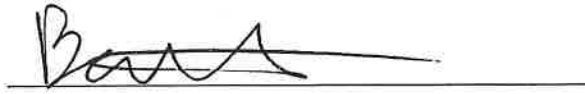
SOLE/JOINT INVENTION
(Worldwide Rights)
Attorney Docket No. VPI/19-113 WO



John E. Cochran

Date: 08/06/2020

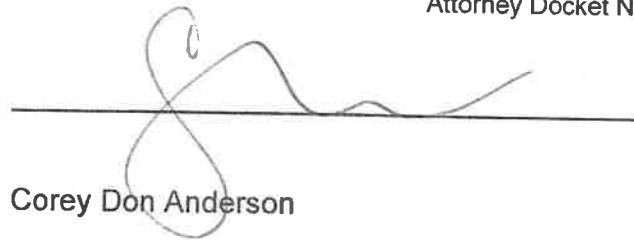
SOLE/JOINT INVENTION
(Worldwide Rights)
Attorney Docket No. VPI/19-113 WO

A handwritten signature in black ink, appearing to read 'Benjamin J. Littler', is written over a horizontal line.

Benjamin J. Littler

Date: __03AUG2020__

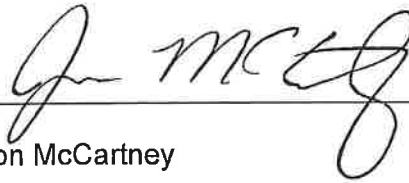
SOLE/JOINT INVENTION
(Worldwide Rights)
Attorney Docket No. VPI/19-113 WO

A handwritten signature in dark ink, appearing to read "Corey Don Anderson", is written over a horizontal line. The signature is fluid and cursive, with a large loop at the beginning.

Corey Don Anderson

Date: August 3, 2020

SOLE/JOINT INVENTION
(Worldwide Rights)
Attorney Docket No. VPI/19-113 WO



Jason McCartney

Date: _____08/04/2020_____

SOLE/JOINT INVENTION
(Worldwide Rights)
Attorney Docket No. VPI/19-113 WO

A handwritten signature in black ink, appearing to read "C. Paraselli", is written over a horizontal line.

Prasuna Paraselli

Date: 07/31/2020

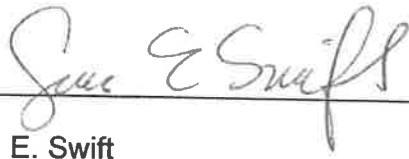
SOLE/JOINT INVENTION
(Worldwide Rights)
Attorney Docket No. VPI/19-113 WO



Fabrice Pierre

Date: 7/30/2020 _____

SOLE/JOINT INVENTION
(Worldwide Rights)
Attorney Docket No. VPI/19-113 WO



Sara E. Swift

Date: _____07/31/2020_____

ACKNOWLEDGEMENT OF ASSIGNEE

A handwritten signature in cursive script, appearing to read "Kerry A. Flynn", is written over a horizontal line.

Name: Kerry A. Flynn

Title: VP, IP and Chief IP Counsel

On behalf of Vertex Pharmaceuticals Incorporated

Date: 12 Aug 2020