



UNITED STATES PATENT AND TRADEMARK OFFICE

UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND
DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

OCTOBER 27, 2017

PTAS

MALCOLM K. MCGOWAN
127 S. PEYTON STREET
SUITE 200
ALEXANDRIA, VA 22314

504613828

UNITED STATES PATENT AND TRADEMARK OFFICE NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT RECORDATION BRANCH OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE ASSIGNMENT RECORDATION BRANCH AT 571-272-3350. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, MAIL STOP: ASSIGNMENT RECORDATION BRANCH, P.O. BOX 1450, ALEXANDRIA, VA 22313.

RECORDATION DATE: 10/26/2017

REEL/FRAME: 043962/0883
NUMBER OF PAGES: 5

BRIEF: ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).

DOCKET NUMBER: 196-002P

ASSIGNOR:
PFIZER INC.

DOC DATE: 10/04/2017

ASSIGNEE:
CYSTIC FIBROSIS FOUNDATION
THERAPEUTICS INC.
4550 MONTGOMERY AVENUE
SUITE 1100 N
BETHESDA, MARYLAND 20814

APPLICATION NUMBER: 62423919
PATENT NUMBER:
TITLE: PYRROLOPYRIMIDINES AS CFTR POTENTIATORS

FILING DATE: 11/18/2016
ISSUE DATE:

ASSIGNMENT RECORDATION BRANCH
PUBLIC RECORDS DIVISION

ASSIGNMENT/CONFIRMATORY ASSIGNMENT

For valuable consideration, the receipt and adequacy of which is hereby acknowledged, we, **PFIZER INC.**, a corporation organized and existing under the laws of **the State of Delaware, United States of America**, and having its principal place of business at **235 East 42nd Street, New York, New York 10017, United States of America**, hereby sells, assigns and transfers and/or confirms the sale, assignment and transfer unto **Cystic Fibrosis Foundation Therapeutics Inc.**, a corporation organized and existing under the laws of **the State of Maryland, United States of America**, and having its principal place of business at **4550 Montgomery Avenue, Suite ¹¹⁰⁰ ~~H~~ N, Bethesda, MD 20814**, our entire right, title and interest in and to United States Provisional Patent Application Serial No. **62/423,919** filed **November 18, 2016**; our entire right, title and interest, in all countries of the world, in and to all our inventions, whether joint or sole, disclosed in said Provisional Patent Application; our entire right, title and interest in and to all patent applications filed for Letters Patent for any or all of said inventions; our entire right, title and interest in and to all Letters Patent granted on said patent applications; and the right to claim priority from said Provisional Patent Application under the Paris Convention for the Protection of Industrial Property, and under any and all other such treaties and agreements to which the United States of America is a party and which afford similar priority-claiming privileges, in all countries of the world; and we hereby agree and/or confirm the agreement, whenever requested, to communicate to said **Cystic Fibrosis Foundation Therapeutics Inc.** and its successors and assigns, any facts known to us respecting said inventions, to testify in any legal proceeding respecting said inventions, and to execute all applications or papers necessary to obtain and maintain proper patent protection on said inventions in all countries of the world.

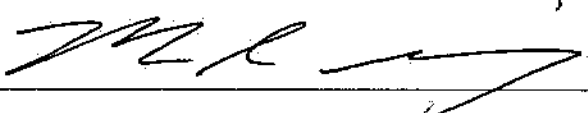
at GROTON, CT, USA

Authorized Representative Duly Authorized by the Company

STATE OF CONNECTICUT)
) ss. Groton
COUNTY OF NEW LONDON)

Signed and witnessed this 10th day of October, 2017,

at Bethesda, MD USA

By: 

Name: Marc S. Ginsky

Title: Executive Vice President & Chief Operating Officer

Authorized Representative Duly Authorized by the Company

STATE OF MARYLAND:

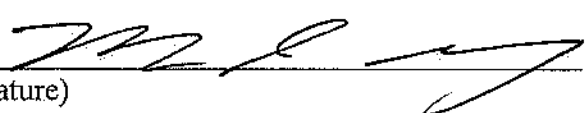
COUNTY OF Montgomery, Tax I.D. #: 91-2059167

On this 10th day of October, 2017 before me the undersigned
Notary, personally appeared Marc Ginsky and acknowledge as
follows:

1. That the undersigned is the EVP of Cystic Fibrosis Foundation Therapeutics, Inc, a corporation that is in good standing in the State of Maryland; and named as such in the Company's Charter documents.

2. That Marc Ginsky, as the EVP of this corporation is so
authorized, to sign the foregoing instrument on behalf of Cystic Fibrosis Foundation Therapeutics

3. That said signature by the EVP is genuine and that said instrument duly
signed, sealed and attested to on behalf of the said company


(Signature)

Executive Vice President & Chief Operating Officer
(Print or Type Title)

Marc S. Ginsky
(Print or Type Name)

WITNESS:

E. Joseloff
(Signature)

Director, Integrative Biology
(Print or Type Title)

Elizabeth Joseloff
(Print or Type Name)

And that said acknowledgement of the said instrument is the free act and deed of the said corporation.

(SEAL)

Christine L. Hess
Notary Public

My Commission expires: March 15, 2020





UNITED STATES PATENT AND TRADEMARK OFFICE

UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND
DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

NOVEMBER 2, 2017

PTAS

PFIZER INC.
235 EAST 42ND STREET
ATTN: LEGAL PATENT DEPARTMENT, CHIEF
IP COUNSEL
NEW YORK, NY 10017

504564689

UNITED STATES PATENT AND TRADEMARK OFFICE NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

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RECORDATION DATE: 09/26/2017

REEL/FRAME: 044003/0768

NUMBER OF PAGES: 15

BRIEF: CORRECTIVE ASSIGNMENT TO CORRECT THE OMISSION OF NINTH INVENTOR NAME PREVIOUSLY RECORDED AT REEL: 043659 FRAME: 0172. ASSIGNOR(S) HEREBY CONFIRMS THE ASSIGNMENT.

DOCKET NUMBER: PC72329

ASSIGNOR:

STROHBACH, JOSEPH WALTER

DOC DATE: 07/19/2017

ASSIGNOR:

LIMBURG, DAVID CHRISTOPHER

DOC DATE: 08/22/2017

ASSIGNOR:

MATHIAS, JOHN PAUL

DOC DATE: 07/19/2017

ASSIGNOR:

THORARENSEN, ATLI

DOC DATE: 07/21/2017

ASSIGNOR:

DENNY, RAJIAH ALDRIN

DOC DATE: 07/20/2017

ASSIGNOR:

ZAPF, CHRISTOPH WOLFGANG

DOC DATE: 08/01/2017

ASSIGNOR:
ELBAUM, DANIEL

DOC DATE: 07/18/2017

ASSIGNOR:
GAVRIN, LORI KRIM

DOC DATE: 07/24/2017

ASSIGNOR:
EFREMOV, IVAN VIKTOROVICH

DOC DATE: 08/08/2017

ASSIGNEE:
PFIZER INC.
235 EAST 42ND STREET
ATTN: LEGAL PATENT DEPARTMENT, CHIEF
IP COUNSEL
NEW YORK, NEW YORK 10017

APPLICATION NUMBER: 62423919

FILING DATE: 11/18/2016

PATENT NUMBER:

ISSUE DATE:

TITLE: PYRROLOPYRIMIDINES AS CFTR POTENTIATORS

ASSIGNMENT RECORDATION BRANCH
PUBLIC RECORDS DIVISION

ASSIGNMENT/CONFIRMATORY ASSIGNMENT

For valuable consideration, the receipt and adequacy of which is hereby acknowledged, we, **Joseph Walter STROHBACH**, citizen of United States, and resident of 114 Crockett Creek Drive, Wentzville, Missouri 63385; **David Christopher LIMBURG**, citizen of United States, and resident of 227 Forsyth Road, Salem, Connecticut 06420; **John Paul MATHIAS**, citizen of United Kingdom, and resident of 1338 Main Street, Concord, Massachusetts 01742; **Atli THORARENSEN**, citizen of United States, and resident of 240 Boxboro Road, Stow, Massachusetts 01775; **Rajiah Aldrin DENNY**, citizen of United States, and resident of 40 Harold Street, Sharon, Massachusetts 02067; **Christoph Wolfgang ZAPF**, citizen of United States, and resident of 301 Executive Park Blvd., #140, San Francisco, California 94134; **Daniel ELBAUM**, citizen of United States, and resident of 25 Sherrin Road, Newton, Massachusetts 02462; **Lori Krim GAVRIN**, citizen of United States, and resident of 306 Clairmont Road, Villanova, Pennsylvania 19085 and **Ivan Viktorovich EFREMOV**, citizen of United States, and resident of 83 Payson Road, Chestnut Hill, Massachusetts 02467, hereby sell, assign and transfer and/or confirm the sale, assignment and transfer unto **Pfizer Inc.**, a corporation organized and existing under the laws of the **State of Delaware, United States of America**, and having its principal place of business at **235 East 42nd Street, New York, New York, 10017**, our entire right, title and interest in and to United States Provisional Patent Application Serial No. **62/423,919**, filed **November 18, 2016**, having PFIZER Docket No. **PC72329**, and entitled **Pyrrolopyrimidines As CFTR Potentiators**; our entire right, title and interest, in all countries of the world, in and to all our inventions, whether joint or sole, disclosed in said Provisional Patent Application; our entire right, title and interest in and to all patent applications filed for Letters Patent for any or all of said inventions; our entire right, title and interest in and to all Letters Patent granted on said patent applications; and the right to claim priority from said Provisional Patent Application under the Paris Convention for the Protection of Industrial Property, and under any and all other such treaties and agreements to which the United States of America is a party and which afford similar priority-claiming privileges, in all countries of the world;

and we hereby agree and/or confirm the agreement, whenever requested, to communicate to said **Pfizer Inc.** and its successors and assigns, any facts known to us respecting said inventions, to

testify in any legal proceeding respecting said inventions, and to execute all applications or papers necessary to obtain and maintain proper patent protection on said inventions in all countries of the world.

Joseph Walter Strohbach
Joseph Walter STROHBACH

19-JULY-2017
Date

ACKNOWLEDGMENT

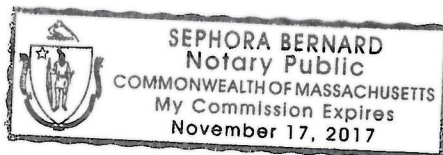
State of MASSACHUSETTS

ss:

County of MIDDLESEX

On this 19 day of July 2017, before me, the undersigned notary public, personally appeared Joseph Walter STROHBACH, proved to me through satisfactory evidence of identification, which were personally known, to be the person whose name is signed on the preceding or attached document in my presence.

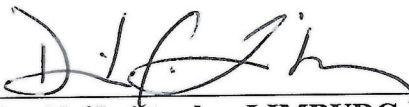
WITNESS my hand and official seal.



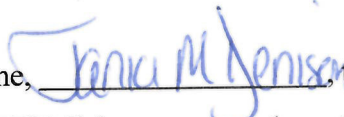
Sephora Bernard
Notary Public

My Commission Expires: 11/17/17

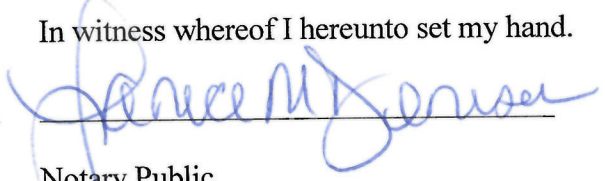
Signed and witnessed this 22nd day of August, 2017 at Groton, Connecticut.

By: 
David Christopher LIMBURG

STATE OF CONNECTICUT)
) ss. Groton
COUNTY OF NEW LONDON)

On this the 22nd day of August, 2017, before me, , the undersigned officer, personally appeared **David Christopher LIMBURG**, known to me (or satisfactorily proven) to be the person(s) whose name(s) (is or are) subscribed to the within instrument and acknowledged that (he, she or they) executed the same for the purposes therein contained.

In witness whereof I hereunto set my hand.


Notary Public
My Commission Expires:

JANICE M DENISON
NOTARY PUBLIC
State of Connecticut
Commission Expires
March 31, 2022



John Paul Math

John Paul MATHIAS

07/19/2017

Date

ACKNOWLEDGMENT

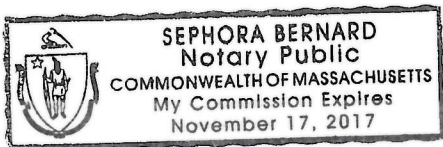
State of MASSACHUSETTS

ss:

County of MIDDLESEX

On this 19 day of July 2017, before me, the undersigned notary public, personally appeared **John Paul MATHIAS**, proved to me through satisfactory evidence of identification, which were License, to be the person whose name is signed on the preceding or attached document in my presence.

WITNESS my hand and official seal.



Seph
Notary Public

My Commission Expires: 11/17/17



Atli THORARENSEN

07/21/2017

Date

ACKNOWLEDGMENT

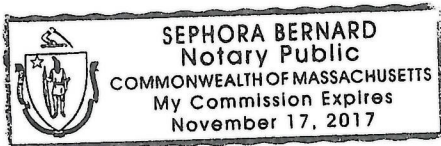
State of MASSACHUSETTS

ss:

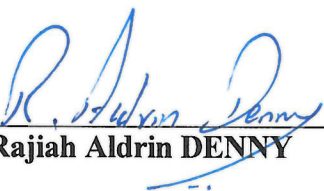
County of MIDDLESEX

On this 21 day of July 2017, before me, the undersigned notary public, personally appeared Atli THORARENSEN, proved to me through satisfactory evidence of identification, which were personally known, to be the person whose name is signed on the preceding or attached document in my presence.

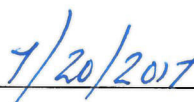
WITNESS my hand and official seal.


Notary Public

My Commission Expires: 11/17/17



Rajiah Aldrin DENNY



Date

ACKNOWLEDGMENT

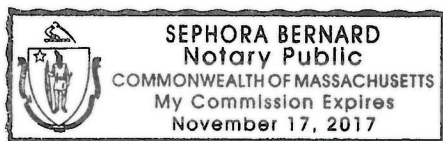
State of MASSACHUSETTS

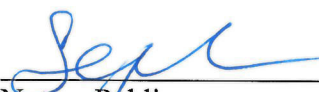
ss:

County of MIDDLESEX

On this 20 day of July 2017, before me, the undersigned notary public, personally appeared **Rajiah Aldrin DENNY**, proved to me through satisfactory evidence of identification, which were License, to be the person whose name is signed on the preceding or attached document in my presence.

WITNESS my hand and official seal.





Notary Public

My Commission Expires: 11/17/17

Signed and witnessed this 1 day of August 2017,

at SAN FRANCISCO, CA SAN FRANCISCO
INSERT City, State, Country here

[Signature]
Christoph Wolfgang ZAPF

*** NOTARIZATION REQUIRED ***

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

STATE of California
COUNTY of San Francisco

On August 1, 2017 before me, Annabelle Acido Padrones, Notary Pub
Date Here Insert Name and Title of the Officer

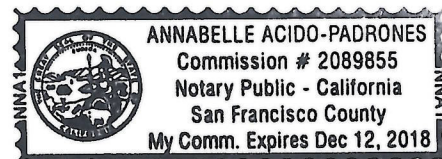
personally appeared Christoph Zapf
Name of Signer

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature [Signature]
Signature of Notary Public



Place Notary Seal Above



Daniel ELBAUM

July 18, 2017

Date

ACKNOWLEDGMENT

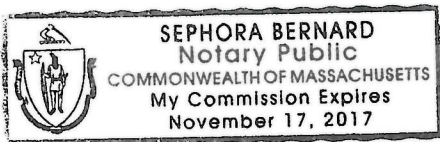
State of MASSACHUSETTS

ss:

County of MIDDLESEX

On this 18 day of July 2017, before me, the undersigned notary public, personally appeared **Daniel ELBAUM**, proved to me through satisfactory evidence of identification, which were MA License, to be the person whose name is signed on the preceding or attached document in my presence.

WITNESS my hand and official seal.





Notary Public

My Commission Expires: 11/17/17

~~~~~

Signed and witnessed this 24 day of July, 2017,

at King of Prussia, Pennsylvania, United States of America

Lori Krim Gavrín  
Lori Krim GAVRIN

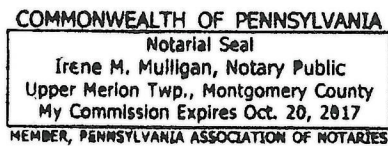
State of Pennsylvania

SS:

County of MONTGOMERY

On the 24<sup>th</sup> day of JULY, 2017, **Lori Krim GAVRIN**, personally appeared before me, known by me to be the same person described in and who executed the foregoing instrument, and acknowledged that he/she executed the same, of his/her own free will and for the purposes set forth.

Irene M. Mulligan  
Notary Public



Ivan Viktorovich Efremov

Ivan Viktorovich EFREMOV

Date

August 8, 2017

ACKNOWLEDGMENT

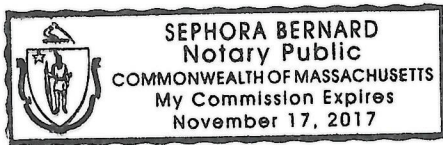
State of MASSACHUSETTS

ss:

County of MIDDLESEX

On this 8 day of August 2017, before me, the undersigned notary public, personally appeared Ivan Viktorovich EFREMOV, proved to me through satisfactory evidence of identification, which were personally known, to be the person whose name is signed on the preceding or attached document in my presence.

WITNESS my hand and official seal.



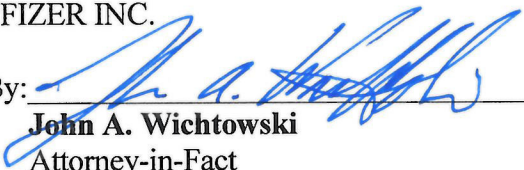
[Signature]  
Notary Public

My Commission Expires: 11/17/17

~~~~~

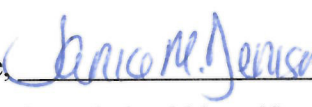
Signed and witnessed this 22nd day of August, 2017 at Groton, Connecticut.

PFIZER INC.

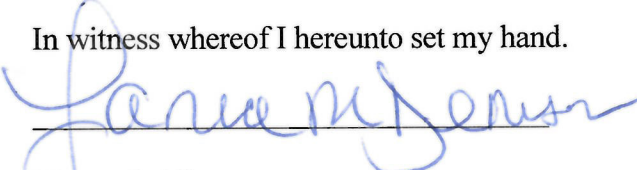
By: 

John A. Wichtowski
Attorney-in-Fact
Duly Authorized

STATE OF CONNECTICUT)
) ss. Groton
COUNTY OF NEW LONDON)

On this the 22nd day of August, 2017, before me, , the undersigned officer, personally appeared **John A. Wichtowski**, who acknowledged himself to be Attorney-in-Fact of Pfizer, Inc., a corporation, and that he as such Attorney-in-Fact, being authorized so to do, executed the foregoing instrument for the purposes therein contained, by signing the name of the corporation by himself as Attorney-in-Fact.

In witness whereof I hereunto set my hand.


Notary Public
My Commission Expires:

JANICE M DENISON
NOTARY PUBLIC
State of Connecticut
My Commission Expires
March 31, 2022