PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4881607

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
NATHANIEL HEINTZ	05/08/2012
PAUL GREENGARD	05/11/2012
MYRIAM HEIMAN	05/12/2012
ANNE SCHAEFER	10/15/2012
JOSEPH P. DOYLE	10/16/2012
JOSEPH D. DOUGHERTY	05/10/2012

RECEIVING PARTY DATA

Name:	THE ROCKEFELLER UNIVERSITY
Street Address:	1230 YORK AVENUE
City:	NEW YORK
State/Country:	NEW YORK
Postal Code:	10065

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15720658

CORRESPONDENCE DATA

Fax Number: (617)502-5002

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 617-248-5000

Email: patentdocket@choate.com

Correspondent Name: CHOATE HALL & STEWART LLP TWO INTERNATIONAL PLACE Address Line 1:

Address Line 4: BOSTON, MASSACHUSETTS 02110

ATTORNEY DOCKET NUMBER:	2011060-0012
NAME OF SUBMITTER:	DAVID E. SHORE, PHD
SIGNATURE:	/David E. Shore/
DATE SIGNED:	03/23/2018

Total Attachments: 6

PATENT REEL: 045331 FRAME: 0514

504834870

WHEREAS, Nathaniel Heintz ("ASSIGNOR") having an address at 1230 York Avenue, New York, NY, U.S., have rights in the invention(s) ("THE INVENTION(S)") disclosed in:

PCT/US09/01614 entitled "METHODS AND COMPOSITIONS FOR TRANSLATIONAL PROFILING AND MOLECULAR PHENOTYPING" filed March 12, 2009; and

US 12/918,761 entitled "METHODS AND COMPOSITIONS FOR TRANSLATIONAL PROFILING AND MOLECULAR PHENOTYPING" filed November 15, 2010;

AND WHEREAS, THE ROCKEFELLER UNIVERSITY, ("ASSIGNEE"), a New York nonprofit education corporation doing business at 1230 York Avenue, New York, NY 10065, desires to acquire the entire right, title, and interest in and to THE INVENTION(S) and in and to the Patent;

NOW, THEREFORE, in consideration of the sum of one dollar (\$1.00) in hand and/or other good and valuable consideration, the receipt of which is hereby acknowledged, Nathaniel Heintz have sold, assigned, transferred and set over, and do hereby sell, assign, transfer and set over to ASSIGNEE the entire right, title and interest in and to THE INVENTION(S) and the Patent and all patents and patent applications claiming priority to and/or benefit of the Patent including divisions, continuations, and continuations-in-part thereof and all reissues, reexaminations, and extensions thereof, and all priority rights under the International Convention for the Protection of Industrial Property for every member country, and all applications for patents (including related rights such as utility-model registrations, registrations, inventor's certificates, and the like) heretofore or hereafter filed for THE INVENTION(S) in any foreign country/countries, and all patents (including all extensions, renewals and reissues thereof) granted for THE INVENTION(S) and the Patent in any foreign country/countries;

AND Nathaniel Heintz HEREBY authorize and request the United States Commissioner of Patents and Trademarks, and any officials of foreign countries whose duty is to issue the patent on an application as aforesaid, to issue the patent for THE INVENTION(S) and/or the Patent in the name of ASSIGNEE in accordance with the terms of this assignment;

AND Nathaniel Heintz HEREBY covenant that Nathaniel Heintz have full right to convey the entire interest herein assigned, and that Nathaniel Heintz have not executed, and will not execute, any agreement in conflict herewith;

AND Nathaniel Heintz HEREBY further covenant and agree that Nathaniel Heintz will communicate to ASSIGNEE any facts known to me respecting THE INVENTION(S) and the Patent, sign all lawful papers, execute all divisional, continuation, continuations-in-part, substitute, reexamination, and reissue applications, make all rightful oaths and generally do everything possible to aid ASSIGNEE to obtain and enforce proper patent protection for THE INVENTION(S) and the Patent.

In testimony whereof, I hereunto set my hand this S day of Angle

Nathaniel Heintz

1

WHEREAS, Paul Greengard ("ASSIGNOR") having an address at 1230 York Avenue, New York, NY, U.S., have rights in the invention(s) ("THE INVENTION(S)") disclosed in:

PCT/US09/01614 entitled "METHODS AND COMPOSITIONS FOR TRANSLATIONAL PROFILING AND MOLECULAR PHENOTYPING" filed March 12, 2009; and

US 12/918,761 entitled "METHODS AND COMPOSITIONS FOR TRANSLATIONAL PROFILING AND MOLECULAR PHENOTYPING" filed November 15, 2010;

AND WHEREAS, THE ROCKEFELLER UNIVERSITY, ("ASSIGNEE"), a New York non-profit education corporation doing business at 1230 York Avenue, New York, NY 10065, desires to acquire the entire right, title, and interest in and to THE INVENTION(S) and in and to the Patent:

NOW, THEREFORE, in consideration of the sum of one dollar (\$1.00) in hand and/or other good and valuable consideration, the receipt of which is hereby acknowledged, Paul Greengard have sold, assigned, transferred and set over, and do hereby sell, assign, transfer and set over to ASSIGNEE the entire right, title and interest in and to THE INVENTION(S) and the Patent and all patents and patent applications claiming priority to and/or benefit of the Patent including divisions, continuations, and continuations-in-part thereof and all reissues, reexaminations, and extensions thereof, and all priority rights under the International Convention for the Protection of Industrial Property for every member country, and all applications for patents (including related rights such as utility-model registrations, registrations, inventor's certificates, and the like) heretofore or hereafter filed for THE INVENTION(S) in any foreign country/countries, and all patents (including all extensions, renewals and reissues thereof) granted for THE INVENTION(S) and the Patent in any foreign country/countries;

AND Paul Greengard HEREBY authorize and request the United States Commissioner of Patents and Trademarks, and any officials of foreign countries whose duty is to issue the patent on an application as aforesaid, to issue the patent for THE INVENTION(S) and/or the Patent in the name of ASSIGNEE in accordance with the terms of this assignment;

AND Paul Greengard HEREBY covenant that Paul Greengard have full right to convey the entire interest herein assigned, and that Paul Greengard have not executed, and will not execute, any agreement in conflict herewith;

AND Paul Greengard HEREBY further covenant and agree that Paul Greengard will communicate to ASSIGNEE any facts known to me respecting THE INVENTION(S) and the Patent, sign all lawful papers, execute all divisional, continuation, continuations-in-part, substitute, reexamination, and reissue applications, make all rightful oaths and generally do everything possible to aid ASSIGNEE to obtain and enforce proper patent protection for THE INVENTION(S) and the Patent.

In testimony whereof, I hereunto set my hand this ______ day of ________, 2012

Paul Greengard

PATENT

REEL: 045331 FRAME: 0517

WHEREAS, Myriam Heiman ("ASSIGNOR") having an address at 1230 York Avenue, New York, NY, U.S., have rights in the invention(s) ("THE INVENTION(S)") disclosed in:

PCT/US09/01614 entitled "METHODS AND COMPOSITIONS FOR TRANSLATIONAL PROFILING AND MOLECULAR PHENOTYPING" filed March 12, 2009; and

US 12/918,761 entitled "METHODS AND COMPOSITIONS FOR TRANSEATIONAL PROFILING AND MOLECULAR PHENOTYPING" filed November 15, 2010;

AND WHEREAS, THE ROCKEFELLER UNIVERSITY, ("ASSIGNEE"), a New York nonprofit education corporation doing business at 1230 York Avenue, New York, NY 10065, desires to acquire the entire right, title, and interest in and to THE INVENTION(S) and in and to the Patent;

NOW, THEREFORE, in consideration of the sum of one dollar (\$1.00) in hand and/or other good and valuable consideration, the receipt of which is hereby acknowledged. Myriam Heiman have sold, assigned, transferred and set over, and do hereby sell, assign, transfer and set over to ASSIGNEE the entire right, title and interest in and to THE INVENTION(S) and the Patent and all patents and patent applications claiming priority to and/or benefit of the Patent including divisions, continuations, and continuations-in-part thereof and all reissues, reexaminations, and extensions thereof, and all priority rights under the International Convention for the Protection of Industrial Property for every member country, and all applications for patents (including related rights such as utility-model registrations, registrations, inventor's certificates, and the like) heretofore or hereafter filed for THE INVENTION(S) in any foreign country/countries, and all patents (including all extensions, renewals and reissues thereof) granted for THE INVENTION(S) and the Patent in any foreign country/countries;

AND Myriam Heiman HEREBY authorize and request the United States Commissioner of Patents and Trademarks, and any officials of foreign countries whose duty is to issue the patent on an application as aforesaid, to issue the patent for THE INVENTION(S) and/or the Patent in the name of ASSIGNEE in accordance with the terms of this assignment;

AND Myriam Heiman HEREBY covenant that Myriam Heiman have full right to convey the entire interest herein assigned, and that Myriam Heiman have not executed, and will not execute, any agreement in conflict herewith;

AND Myriam Heiman HEREBY further covenant and agree that Myriam Heiman will communicate to ASSIGNEE any facts known to me respecting THE INVENTION(S) and the Patent, sign all lawful papers, execute all divisional, continuation, continuations-in-part. substitute, reexamination, and reissue applications, make all rightful oaths and generally do everything possible to aid ASSIGNEE to obtain and enforce proper patent protection for THE INVENTION(S) and the Patent.

In testimony whereof, I hereunto set my hand this 12 M day of May, 2012.

Myriam Heiman

WHEREAS, Anne Schaefer ("ASSIGNOR") having an address at 1230 York Avenue, New York, NY, U.S., have rights in the invention(s) ("THE INVENTION(S)") disclosed in:

PCT/US09/01614 entitled "METHODS AND COMPOSITIONS FOR TRANSLATIONAL PROFILING AND MOLECULAR PHENOTYPING" filed March 12, 2009; and

US 12/918,761 entitled "METHODS AND COMPOSITIONS FOR TRANSLATIONAL PROFILING AND MOLECULAR PHENOTYPING" filed November 15, 2010;

AND WHEREAS, THE ROCKEFELLER UNIVERSITY, ("ASSIGNEE"), a New York non-profit education corporation doing business at 1230 York Avenue, New York, NY 10065, desires to acquire the entire right, title, and interest in and to THE INVENTION(S) and in and to the Patent;

NOW, THEREFORE, in consideration of the sum of one dollar (\$1.00) in hand and/or other good and valuable consideration, the receipt of which is hereby acknowledged, Anne Schaefer have sold, assigned, transferred and set over, and do hereby sell, assign, transfer and set over to ASSIGNEE the entire right, title and interest in and to THE INVENTION(S) and the Patent and all patents and patent applications claiming priority to and/or benefit of the Patent including divisions, continuations, and continuations-in-part thereof and all reissues, reexaminations, and extensions thereof, and all priority rights under the International Convention for the Protection of Industrial Property for every member country, and all applications for patents (including related rights such as utility-model registrations, registrations, inventor's certificates, and the like) heretofore or hereafter filed for THE INVENTION(S) in any foreign country/countries, and all patents (including all extensions, renewals and reissues thereof) granted for THE INVENTION(S) and the Patent in any foreign country/countries;

AND Anne Schaefer HEREBY authorize and request the United States Commissioner of Patents and Trademarks, and any officials of foreign countries whose duty is to issue the patent on an application as aforesaid, to issue the patent for THE INVENTION(S) and/or the Patent in the name of ASSIGNEE in accordance with the terms of this assignment;

AND Anne Schaefer HEREBY covenant that Anne Schaefer have full right to convey the entire interest herein assigned, and that Anne Schaefer have not executed, and will not execute, any agreement in conflict herewith:

AND Anne Schaefer HEREBY further covenant and agree that Anne Schaefer will communicate to ASSIGNEE any facts known to me respecting THE INVENTION(S) and the Patent, sign all lawful papers, execute all divisional, continuation, continuations-in-part, substitute, reexamination, and reissue applications, make all rightful oaths and generally do everything possible to aid ASSIGNEE to obtain and enforce proper patent protection for THE INVENTION(S) and the Patent.

In testimony whereof, I hereunto set my hand this \(\sum_{\infty} \) day of \(\cap_{\infty} \) day of \(\cap_{\infty} \), 2012.

Anne Schaefer

1

WHEREAS, Joseph P. Doyle ("ASSIGNOR") having an address at 137 Courtney Court, Jupiter, FL, U.S., have rights in the invention(s) ("THE INVENTION(S)") disclosed in:

PCT/US09/01614 entitled "METHODS AND COMPOSITIONS FOR TRANSLATIONAL PROFILING AND MOLECULAR PHENOTYPING" filed March 12, 2009; and

US 12/918,761 entitled "METHODS AND COMPOSITIONS FOR TRANSLATIONAL PROFILING AND MOLECULAR PHENOTYPING" filed November 15, 2010;

AND WHEREAS, THE ROCKEFELLER UNIVERSITY, ("ASSIGNEE"), a New York non-profit education corporation doing business at 1230 York Avenue, New York, NY 10065, desires to acquire the entire right, title, and interest in and to THE INVENTION(S) and in and to the Patent;

NOW, THEREFORE, in consideration of the sum of one dollar (\$1.00) in hand and/or other good and valuable consideration, the receipt of which is hereby acknowledged, Joseph P. Doyle have sold, assigned, transferred and set over, and do hereby sell, assign, transfer and set over to ASSIGNEE the entire right, title and interest in and to THE INVENTION(S) and the Patent and all patents and patent applications claiming priority to and/or benefit of the Patent including divisions, continuations, and continuations-in-part thereof and all reissues, reexaminations, and extensions thereof, and all priority rights under the International Convention for the Protection of Industrial Property for every member country, and all applications for patents (including related rights such as utility-model registrations, registrations, inventor's certificates, and the like) heretofore or hereafter filed for THE INVENTION(S) in any foreign country/countries, and all patents (including all extensions, renewals and reissues thereof) granted for THE INVENTION(S) and the Patent in any foreign country/countries;

AND Joseph P. Doyle HEREBY authorize and request the United States Commissioner of Patents and Trademarks, and any officials of foreign countries whose duty is to issue the patent on an application as aforesaid, to issue the patent for THE INVENTION(S) and/or the Patent in the name of ASSIGNEE in accordance with the terms of this assignment;

AND Joseph P. Doyle HEREBY covenant that Joseph P. Doyle have full right to convey the entire interest herein assigned, and that Joseph P. Doyle have not executed, and will not execute, any agreement in conflict herewith;

AND Joseph P. Doyle HEREBY further covenant and agree that Joseph P. Doyle will communicate to ASSIGNEE any facts known to me respecting THE INVENTION(S) and the Patent, sign all lawful papers, execute all divisional, continuation, continuations-in-part, substitute, reexamination, and reissue applications, make all rightful oaths and generally do everything possible to aid ASSIGNEE to obtain and enforce proper patent protection for THE INVENTION(S) and the Patent.

In testimony whereof, I hereunto set my hand this 16th day of 0670687, 2012.

sosepu r. Doyte

WHEREAS, Joseph D. Dougherty ("ASSIGNOR") having an address at 1230 York Avenue, New York, NY, U.S., have rights in the invention(s) ("THE INVENTION(S)") disclosed in:

PCT/US09/01614 entitled "METHODS AND COMPOSITIONS FOR TRANSLATIONAL PROFILING AND MOLECULAR PHENOTYPING" filed March 12, 2009; and

US 12/918,761 entitled "METHODS AND COMPOSITIONS FOR TRANSLATIONAL PROFILING AND MOLECULAR PHENOTYPING" filed November 15, 2010;

AND WHEREAS, THE ROCKEFELLER UNIVERSITY, ("ASSIGNEE"), a New York non-profit education corporation doing business at 1230 York Avenue, New York, NY 10065, desires to acquire the entire right, title, and interest in and to THE INVENTION(S) and in and to the Patent;

NOW, THEREFORE, in consideration of the sum of one dollar (\$1.00) in hand and/or other good and valuable consideration, the receipt of which is hereby acknowledged, Joseph D. Dougherty have sold, assigned, transferred and set over, and do hereby sell, assign, transfer and set over to ASSIGNEE the entire right, title and interest in and to THE INVENTION(S) and the Patent and all patents and patent applications claiming priority to and/or benefit of the Patent including divisions, continuations, and continuations-in-part thereof and all reissues, reexaminations, and extensions thereof, and all priority rights under the International Convention for the Protection of Industrial Property for every member country, and all applications for patents (including related rights such as utility-model registrations, registrations, inventor's certificates, and the like) heretofore or hereafter filed for THE INVENTION(S) in any foreign country/countries, and all patents (including all extensions, renewals and reissues thereof) granted for THE INVENTION(S) and the Patent in any foreign country/countries;

AND Joseph D. Dougherty HEREBY authorize and request the United States Commissioner of Patents and Trademarks, and any officials of foreign countries whose duty is to issue the patent on an application as aforesaid, to issue the patent for THE INVENTION(S) and/or the Patent in the name of ASSIGNEE in accordance with the terms of this assignment;

AND Joseph D. Dougherty HEREBY covenant that Joseph D. Dougherty have full right to convey the entire interest herein assigned, and that Joseph D. Dougherty have not executed, and will not execute, any agreement in conflict herewith;

AND Joseph D. Dougherty HEREBY further covenant and agree that Joseph D. Dougherty will communicate to ASSIGNEE any facts known to me respecting THE INVENTION(S) and the Patent, sign all lawful papers, execute all divisional, continuation, continuations-in-part, substitute, reexamination, and reissue applications, make all rightful oaths and generally do everything possible to aid ASSIGNEE to obtain and enforce proper patent protection for THE INVENTION(S) and the Patent.

In testimony whereof, I hereunto set my hand this 10th day of May, 2

Joseph D. Dougherty

PATENT

REEL: 045331 FRAME: 0521

RECORDED: 03/23/2018