504185542 01/19/2017

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4232217

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
BEAU WEBBER	12/16/2016
R. SCOTT MCIVOR	12/29/2016
BRANDEN MORIARITY	12/20/2016

RECEIVING PARTY DATA

Name:	REGENTS OF THE UNIVERSITY OF MINNESOTA	
Street Address:	600 MCNAMARA ALUMNI CENTER	
Internal Address:	200 OAK STREET SE	
City:	MINNEAPOLIS	
State/Country:	MINNESOTA	
Postal Code:	55455-2020	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15224151

CORRESPONDENCE DATA

Fax Number: (650)493-6811

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

using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 650 493 9300 Email: rrsmith@wsgr.com

Correspondent Name: WILSON SONSINI GOODRICH & ROSATI

Address Line 1: 650 PAGE MILL ROAD

Address Line 4: PALO ALTO, CALIFORNIA 94304-1050

ATTORNEY DOCKET NUMBER:	47533-712.201
NAME OF SUBMITTER:	RACHEL HERDER
SIGNATURE:	/Rachel Herder/
DATE SIGNED:	01/19/2017

Total Attachments: 9

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PATENT 504185542 REEL: 041014 FRAME: 0038



PATENT REEL: 041014 FRAME: 0039



University of Minnesota ASSIGNMENT

WHEREAS, I, Beau Webber, have invented certain new and useful improvements in INTRACELLULAR GENOMIC TRANSPLANT AND METHODS OF THERAPY, for which applications for Letters Patents of the United States have been made, said applications being filed as follows: Utility application no. 15/224,151 on July 29, 2016 (the "Application(s)");

Whereas, REGENTS OF THE UNIVERSITY OF MINNESOTA ("Assignee"), having offices at 600 McNamara Alumni Center, 200 Oak Street SE, Minneapolis, Minnesota 55455-2020, is desirous of documenting the acquisition of the entire right, title and interest in and to said invention, said Application(s) and in, to and under any and all Letters Patent to be obtained therefor;

NOW, THEREFORE, to all whom it may concern, be it known that for good and valuable consideration, the receipt and sufficiency whereof is hereby acknowledged, and to the extent that I have not done so already via a prior agreement with the Assignee, or if I have already done so via a prior agreement with the Assignee then in confirmation of said prior agreement, I have sold, assigned, transferred and set over and by these presents do sell, assign, transfer and set over unto Assignee, its successors and assigns, the entire right, title and interest in and to the inventions set forth hereinabove and the entire right, title and interest in and to any and all Letters Patent of the United States and any foreign countries which may be granted therefor on the Application(s) including my rights under the Paris Convention for the Protection of Industrial Property, and in and to any and all extensions, divisions, continuations, continuations-in-part or reissues of said Application(s) and Letters Patent that may be granted, including all rights to claim priority therefrom, and specifically including the right to enforce such Letters Patent in the name of Assignee and to recover damages for past infringement of the rights conveyed herein, the same to be held and enjoyed by Assignee for its own use and benefit and use and benefit of its successors and assigns to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held and enjoyed by me had this assignment and sale not been made.

I hereby authorize said Assignee, its successors and assigns, or anyone it may properly designate, to apply for Letters Patent, in its own name if desired, in any and all foreign countries, and additionally to claim the filing date of any the Application(s) and/or otherwise take advantage of the provisions of the Paris Convention.

Attorney Docket Number 47533-712.201 UM Case No. 20160057

Upon said consideration I do hereby covenant and agree with said Assignee, its successors and assigns, that I will not execute in writing or do any act whatsoever conflicting with these presents, and that I or my executors or administrators will at any time upon request, without further or additional consideration, but at the expense of said Assignee, its successors and assigns, execute such additional writings and do such additional acts as said Assignee, its successors and assigns, may deem necessary or desirable to perfect the Assignee's enjoyment of this grant, and render all necessary assistance in making application for and obtaining original, divisional, reissues or extended Letters Patent of the United States, or of any and all foreign countries on said invention, and in enforcing any rights occurring as a result of such application or patents, by giving testimony in any proceedings or transactions involving such applications or patents.

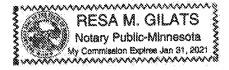
I hereby request the Honorable Commissioner of Patents and Trademarks to issue the Letters Patent to Assignee in accordance with this instrument.

IN WITNESS WHEREOF	, I have hereunto set my	hand on this 16th	day of
	Reau	Webber	
STATE OF Minnesota			
COUNTY OF Hennepin)		
On this 16 H day of to me kno	December	2016, before me pers	sonally appeared
instrument and acknowledged that	: s/he executed the same	as his/her free act and do	ed.
IN WITNESS WHEREOI my office, the day and year above		ed my official signature	with the seal of

RESA M. GILATS
Notary Public-Minnesota
My Commission Expires Jan 31, 2021

Zen M. Tilok

IN WITNESS WHEREOF, I have hereunt , 2016 on behalf of Assign accepting this assignment.	o set my hand on this day of see Regents of the University of Minnesota
REGENTS	OF THE UNIVERSITY OF MINNESOTA
	Paul B. Savereide Senior Associate General Counsel per Presidential Delegation DA_070027
STATE OF MINNESOTA) COUNTY OF HENNEPIN)	
On this	
IN WITNESS WHEREOF, I have hereur my office, the day and year above written.	nto affixed my official signature with the seal of
	Rengu, Dilete Notary Public



Attorney Docket Number 47533-712.201 UM Case No. 20160057



University of Minnesota assignment

WHEREAS, I, R. Scott McIvor, have invented certain new and useful improvements in INTRACELLULAR GENOMIC TRANSPLANT AND METHODS OF THERAPY, for which applications for Letters Patents of the United States have been made, said applications being filed as follows: Utility application no. 15/224,151 on July 29, 2016 (the "Application(s)");

Whereas, REGENTS OF THE UNIVERSITY OF MINNESOTA ("Assignee"), having offices at 600 McNamara Alumni Center, 200 Oak Street SE, Minneapolis, Minnesota 55455-2020, is desirous of documenting the acquisition of the entire right, title and interest in and to said invention, said Application(s) and in, to and under any and all Letters Patent to be obtained therefor;

NOW, THEREFORE, to all whom it may concern, be it known that for good and valuable consideration, the receipt and sufficiency whereof is hereby acknowledged, and to the extent that I have not done so already via a prior agreement with the Assignee, or if I have already done so via a prior agreement with the Assignee then in confirmation of said prior agreement, I have sold, assigned, transferred and set over and by these presents do sell, assign, transfer and set over unto Assignee, its successors and assigns, the entire right, title and interest in and to the inventions set forth hereinabove and the entire right, title and interest in and to any and all Letters Patent of the United States and any foreign countries which may be granted therefor on the Application(s) including my rights under the Paris Convention for the Protection of Industrial Property, and in and to any and all extensions, divisions, continuations, continuations-in-part or reissues of said Application(s) and Letters Patent that may be granted, including all rights to claim priority therefrom, and specifically including the right to enforce such Letters Patent in the name of Assignee and to recover damages for past infringement of the rights conveyed herein, the same to be held and enjoyed by Assignee for its own use and benefit and use and benefit of its successors and assigns to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held and enjoyed by me had this assignment and sale not been made.

I hereby authorize said Assignee, its successors and assigns, or anyone it may properly designate, to apply for Letters Patent, in its own name if desired, in any and all foreign countries, and additionally to claim the filing date of any the Application(s) and/or otherwise take advantage of the provisions of the Paris Convention.

Attorney Docket Number 47533-712.201 UM Case No. 20160057

Upon said consideration I do hereby covenant and agree with said Assignee, its successors and assigns, that I will not execute in writing or do any act whatsoever conflicting with these presents, and that I or my executors or administrators will at any time upon request, without further or additional consideration, but at the expense of said Assignee, its successors and assigns, execute such additional writings and do such additional acts as said Assignee, its successors and assigns, may deem necessary or desirable to perfect the Assignee's enjoyment of this grant, and render all necessary assistance in making application for and obtaining original, divisional, reissues or extended Letters Patent of the United States, or of any and all foreign countries on said invention, and in enforcing any rights occurring as a result of such application or patents, by giving testimony in any proceedings or transactions involving such applications or patents.

I hereby request the Honorable Commissioner of Patents and Trademarks to issue the Letters Patent to Assignee in accordance with this instrument.

IN WITNESS WHEREOF, I have	hereunto set my hand on this 25 th day of
Deurnber, 2016.	83/2/
	R. Scott McIvor

COUNTY OF Heunepin

On this 19th day of December, 2016, before me personally appeared

R. Scott Mc Tvor, to me known to be the person described in and who executed the foregoing instrument and acknowledged that s/he executed the same as his/her free act and deed.

IN WITNESS WHEREOF, I have hereunto affixed my official signature with the scal of my office, the day and year above written.

Secola Gilet

RESA M. GILATS Notary Public-Minnesota My Commission Expires Jan 31, 2021

Attorney Docket Number 47533-712.201 UM Case No. 20160057

IN WITNESS WHEREOF, I have hereunto, 2016 on behalf of Assigned accepting this assignment.	set my hand on thisday of e Regents of the University of Minnesota
REGENTS O	Paul B. Savereide Senior Associate General Counsel per Presidential Delegation DA_070027
STATE OF MINNESOTA COUNTY OF HENNEPIN On this 10 day of 12 many Paul B. Savereide, to me known to be the person instrument and acknowledged that s/he executed the	, 2016, before me personally appeared described in and who executed the foregoing same as his/her free act and deed.
IN WITNESS WHEREOF, I have hereuntomy office, the day and year above written.	o affixed my official signature with the seal of Berlin Gilet Notary Public
*	RESA M. GILATS Notary Public-Minnesota My Commission Expires Jan 31, 2021

Attorney Docket Number 47533-712.201 UM Case No. 20160057



University of Minnesota <u>ASSIGNMENT</u>

WHEREAS, I, Branden Moriarity, have invented certain new and useful improvements in INTRACELLULAR GENOMIC TRANSPLANT AND METHODS OF THERAPY, for which applications for Letters Patents of the United States have been made, said applications being filed as follows: Utility application no. 15/224,151 on July 29, 2016 (the "Application(s)");

Whereas, REGENTS OF THE UNIVERSITY OF MINNESOTA ("Assignee"), having offices at 600 McNamara Alumni Center, 200 Oak Street SE, Minneapolis, Minnesota 55455-2020, is desirous of documenting the acquisition of the entire right, title and interest in and to said invention, said Application(s) and in, to and under any and all Letters Patent to be obtained therefor;

NOW, THEREFORE, to all whom it may concern, be it known that for good and valuable consideration, the receipt and sufficiency whereof is hereby acknowledged, and to the extent that I have not done so already via a prior agreement with the Assignee, or if I have already done so via a prior agreement with the Assignee then in confirmation of said prior agreement, I have sold, assigned, transferred and set over and by these presents do sell, assign, transfer and set over unto Assignee, its successors and assigns, the entire right, title and interest in and to the inventions set forth hereinabove and the entire right, title and interest in and to any and all Letters Patent of the United States and any foreign countries which may be granted therefor on the Application(s) including my rights under the Paris Convention for the Protection of Industrial Property, and in and to any and all extensions, divisions, continuations, continuations-in-part or reissues of said Application(s) and Letters Patent that may be granted, including all rights to claim priority therefrom, and specifically including the right to enforce such Letters Patent in the name of Assignee and to recover damages for past infringement of the rights conveyed herein, the same to be held and enjoyed by Assignee for its own use and benefit and use and benefit of its successors and assigns to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held and enjoyed by me had this assignment and sale not been made.

I hereby authorize said Assignee, its successors and assigns, or anyone it may properly designate, to apply for Letters Patent, in its own name if desired, in any and all foreign countries, and additionally to claim the filing date of any the Application(s) and/or otherwise take advantage of the provisions of the Paris Convention.

Attorney Docket Number 47533-712.201 UM Case No. 20160057

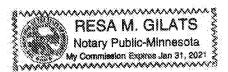
Upon said consideration I do hereby covenant and agree with said Assignee, its successors and assigns, that I will not execute in writing or do any act whatsoever conflicting with these presents, and that I or my executors or administrators will at any time upon request, without further or additional consideration, but at the expense of said Assignee, its successors and assigns, execute such additional writings and do such additional acts as said Assignee, its successors and assigns, may deem necessary or desirable to perfect the Assignee's enjoyment of this grant, and render all necessary assistance in making application for and obtaining original, divisional, reissues or extended Letters Patent of the United States, or of any and all foreign countries on said invention, and in enforcing any rights occurring as a result of such application or patents, by giving testimony in any proceedings or transactions involving such applications or patents.

I hereby request the Honorable Commissioner of Patents and Trademarks to issue the Letters Patent to Assignee in accordance with this instrument.

IN WITNESS WHEREOF, I have hereunto set my hand on this 20 day of December, 2016.	of
STATE OF Minnesota)	
COUNTY OF Henricpin	
On this John day of Jelenten, 2016, before me personally app <u>Eracter Moving ite</u> , to me known to be the person described in and who executed the fore instrument and acknowledged that s/he executed the same as his/her free act and deed.	eared going

IN WITNESS WHEREOF, I have hereunto affixed my official signature with the seal of my office, the day and year above written.

Notary Public



IN WITNESS WHEREOF, I have hereu	unto set my hand on this 27 th day of ignee Regents of the University of Minnesota
REGENT	Paul B. Savereide Senior Associate General Counsel per Presidential Delegation DA_070027
instrument and acknowledged that s/he executed IN WITNESS WHEREOF, I have here	, 2016, before me personally appeared rson described in and who executed the foregoing d the same as his/her free act and deed.
my office, the day and year above written.	Bush. Diek Notary Public
	RESA M. GILATS Notary Public Minnesota My Commission Explose Jan 31, 2021

Attorney Docket Number 47533-712.201 UM Case No. 20160057