

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT5032557

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
LIVIA SCHIAVINATO EBERLIN	12/04/2017
JIALING ZHANG	12/04/2017
NITESH KATTA	02/23/2018
THOMAS MILNER	12/01/2017
JOHN LIN	09/14/2017
JOHN RECTOR	05/14/2018
AYDIN ZAHEDIVASH	09/05/2017
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	BOARD OF REGENTS, THE UNIVERSITY OF TEXAS SYSTEM
<b>Street Address:</b>	210 WEST 7TH STREET
<b>City:</b>	AUSTIN
<b>State/Country:</b>	TEXAS
<b>Postal Code:</b>	78701
<b>PROPERTY NUMBERS Total: 2</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	15692167
<b>PCT Number:</b>	US2017049689
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(512)334-2999
<i>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.</i>	
<b>Phone:</b>	5123342900
<b>Email:</b>	cblessing@phiplaw.com
<b>Correspondent Name:</b>	PARKER HIGHLANDER, PLLC
<b>Address Line 1:</b>	1120 S. CAPITAL OF TEXAS HIGHWAY
<b>Address Line 2:</b>	BUILDING ONE, SUITE 200
<b>Address Line 4:</b>	AUSTIN, TEXAS 78746
<b>ATTORNEY DOCKET NUMBER:</b>	UTFB.P1127WO UTSB.P1127US
<b>NAME OF SUBMITTER:</b>	MARSHALL P. BYRD
<b>SIGNATURE:</b>	/Marshall P. Byrd/

PATENT

**DATE SIGNED:**

07/02/2018

**Total Attachments: 10**

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**ASSIGNMENT OF PATENT APPLICATION**

FOR GOOD AND VALUABLE CONSIDERATION, the receipt, sufficiency and adequacy of which are hereby acknowledged, the undersigned, do hereby:

SELL, ASSIGN AND TRANSFER to Board of Regents, The University of Texas System (the "Assignee"), having a place of business at 210 West 7<sup>th</sup> Street, Austin, Texas, 78701, the entire right, title and interest for the United States and all foreign countries in and to any and all inventions, subject matter and improvements disclosed in International Patent Application, Serial No. PCT/US2017/049689 and United States Patent Application, Serial No. 15/692,167 (the "Invention"), both filed on August 31, 2017, and both of which claim priority to United States Provisional Applications, Serial No. 62/363,234, filed on September 2, 2016, Serial No. 62/411,321, filed on October 21, 2016, and Serial No. 62/462,524, filed on February 23, 2017, such applications and any and all divisional, continuing, substitute, renewal, reissue and other applications for patent which have been or shall be filed in the United States and all foreign countries based on the Invention; all original, reissued and reexamined patents which have been or shall be issued in the United States and all foreign countries based on the Invention; and specifically including the right to file foreign applications under the provisions of any convention or treaty and claim priority based on such application in the United States;

AUTHORIZE AND REQUEST the issuing authority to issue any and all United States and foreign patents granted on such improvements to the Assignee;

WARRANT AND COVENANT that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been or will be made to others by the undersigned, and that the full right to convey the same as herein expressed is possessed by the undersigned;

COVENANT, when requested and at the expense of the Assignee, to carry out in good faith the intent and purpose of this assignment, the undersigned will execute all divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all such improvements; execute all rightful oaths, declarations, assignments, powers of attorney and other papers; communicate to the Assignee all facts known to the undersigned relating to such improvements and the history thereof; and generally do everything possible which the Assignee shall consider desirable for vesting title to such improvements in the Assignee, and for securing, maintaining and enforcing proper patent protection for such improvements;

TO BE BINDING on the heirs, assigns, representatives and successors of the undersigned and extend to the successors, assigns and nominees of the Assignee.



IN WITNESS WHEREOF, I have hereunto signed my name on the day and year set forth below.

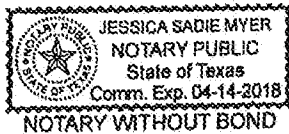
Jialing Zhang  
Inventor's Signature

12/04/2017  
DATE

Jialing Zhang  
Inventor's Printed Name

STATE OF Texas )  
COUNTY OF Travis ) SS

On this 4 day of December, 2017, before me personally came the above named Jialing Zhang who is personally known by me or proved to me on the basis of satisfactory evidence to be the same individual who executed the foregoing assignment, and who acknowledged to me that he/she executed the same of his/her own free will for the use and purposes therein set forth.



[Signature]  
NOTARY PUBLIC  
My Commission Expires: 4-14-2018

IN WITNESS WHEREOF, I have hereunto signed my name on the day and year set forth below.

\_\_\_\_\_  
Inventor's Signature

\_\_\_\_\_  
DATE

John Lin  
Inventor's Printed Name

STATE OF \_\_\_\_\_ )  
COUNTY OF \_\_\_\_\_ ) SS

On this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_, before me personally came the above named John Lin who is personally known by me or proved to me on the basis of satisfactory evidence to be the same individual who executed the foregoing assignment, and who acknowledged to me that he/she executed the same of his/her own free will for the use and purposes therein set forth.

\_\_\_\_\_  
NOTARY PUBLIC  
My Commission Expires: \_\_\_\_\_

IN WITNESS WHEREOF, I have hereunto signed my name on the day and year set forth below.

\_\_\_\_\_  
Inventor's Signature

\_\_\_\_\_  
DATE

John Rector  
\_\_\_\_\_  
Inventor's Printed Name

STATE OF \_\_\_\_\_ )  
COUNTY OF \_\_\_\_\_ ) SS

On this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_, before me personally came the above named John Rector who is personally known by me or proved to me on the basis of satisfactory evidence to be the same individual who executed the foregoing assignment, and who acknowledged to me that he/she executed the same of his/her own free will for the use and purposes therein set forth.

\_\_\_\_\_  
NOTARY PUBLIC

My Commission Expires: \_\_\_\_\_

IN WITNESS WHEREOF, I have hereunto signed my name on the day and year set forth below.

Nitish Katta  
\_\_\_\_\_  
Inventor's Signature

23<sup>rd</sup> Feb 2018  
\_\_\_\_\_  
DATE

Nitish Katta  
\_\_\_\_\_  
Inventor's Printed Name

STATE OF TEXAS )  
COUNTY OF Travis ) SS

On this 23<sup>rd</sup> day of February, 2018, before me personally came the above named Nitish Katta who is personally known by me or proved to me on the basis of satisfactory evidence to be the same individual who executed the foregoing assignment, and who acknowledged to me that he/she executed the same of his/her own free will for the use and purposes therein set forth.



Carrie N. Cunningham  
\_\_\_\_\_  
NOTARY PUBLIC

My Commission Expires: 4/22/2021

(00477080)

IN WITNESS WHEREOF, I have hereunto signed my name on the day and year set forth below.

Inventor's Signature \_\_\_\_\_ DATE \_\_\_\_\_

Aydin Zahedivash  
Inventor's Printed Name

STATE OF \_\_\_\_\_ )  
COUNTY OF \_\_\_\_\_ ) SS

On this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_, before me personally came the above named Aydin Zahedivash who is personally known by me or proved to me on the basis of satisfactory evidence to be the same individual who executed the foregoing assignment, and who acknowledged to me that he/she executed the same of his/her own free will for the use and purposes therein set forth.

\_\_\_\_\_  
NOTARY PUBLIC  
My Commission Expires: \_\_\_\_\_

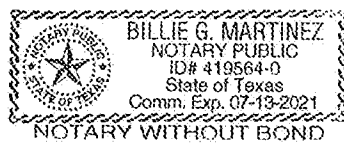
IN TESTIMONY WHEREOF, a representative of BOARD OF REGENTS, THE UNIVERSITY OF TEXAS SYSTEM has signed their name on the date indicated, acknowledging acceptance of the transfer.

James L. Cox, II June 29, 2018  
Assistant General Counsel  
Board of Regents, the University of  
Texas System

STATE OF Texas )  
COUNTY OF Travis ) SS

On this 29<sup>th</sup> day of June, 2018, before me personally came the above named James L. Cox, II who is personally known by me or proved to me on the basis of satisfactory evidence to be the same individual who executed the foregoing assignment, and who acknowledged to me that he/she executed the same of his/her own free will for the use and purposes therein set forth.

Billie G. Martinez  
NOTARY PUBLIC  
My Commission Expires: 7-13-2018



**ASSIGNMENT OF PATENT APPLICATION**

FOR GOOD AND VALUABLE CONSIDERATION, the receipt, sufficiency and adequacy of which are hereby acknowledged, the undersigned, do hereby:

**SELL, ASSIGN AND TRANSFER** to Board of Regents, The University of Texas System (the "Assignee"), having a place of business at 210 West 7<sup>th</sup> Street, Austin, Texas, 78701, the entire right, title and interest for the United States and all foreign countries in and to any and all inventions, subject matter and improvements disclosed in International Patent Application, Serial No. PCT/US2017/049689 and United States Patent Application, Serial No. 15/692,167 (the "Invention"), both filed on August 31, 2017, and both of which claim priority to United States Provisional Applications, Serial No. 62/383,234, filed on September 2, 2016, Serial No. 62/411,321, filed on October 21, 2016, and Serial No. 62/462,524, filed on February 23, 2017, such applications and any and all divisional, continuing, substitute, renewal, reissue and other applications for patent which have been or shall be filed in the United States and all foreign countries based on the Invention; all original, reissued and reexamined patents which have been or shall be issued in the United States and all foreign countries based on the Invention; and specifically including the right to file foreign applications under the provisions of any convention or treaty and claim priority based on such application in the United States;

**AUTHORIZE AND REQUEST** the issuing authority to issue any and all United States and foreign patents granted on such improvements to the Assignee;

**WARRANT AND COVENANT** that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been or will be made to others by the undersigned, and that the full right to convey the same as herein expressed is possessed by the undersigned:

**COVENANT**, when requested and at the expense of the Assignee, to carry out in good faith the intent and purpose of this assignment, the undersigned will execute all divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all such improvements; execute all rightful oaths, declarations, assignments, powers of attorney and other papers; communicate to the Assignee all facts known to the undersigned relating to such improvements and the history thereof; and generally do everything possible which the Assignee shall consider desirable for vesting title to such improvements in the Assignee, and for securing, maintaining and enforcing proper patent protection for such improvements;

**TO BE BINDING** on the heirs, assigns, representatives and successors of the undersigned and extend to the successors, assigns and nominees of the Assignee.





IN WITNESS WHEREOF, I have hereunto signed my name on the day and year set forth below.

\_\_\_\_\_  
 Inventor's Signature                                      DATE

Livia Schiavinato Eberlin  
 Inventor's Printed Name

STATE OF \_\_\_\_\_ )  
                                                               ) SS  
 COUNTY OF \_\_\_\_\_ )

On this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_, before me personally came the above  
 named Livia Schiavinato Eberlin who is personally known by me or proved to me on the basis of  
 satisfactory evidence to be the same individual who executed the foregoing assignment, and who  
 acknowledged to me that he/she executed the same of his/her own free will for the use and purposes  
 therein set forth.

\_\_\_\_\_  
 NOTARY PUBLIC  
 My Commission Expires: \_\_\_\_\_

IN WITNESS WHEREOF, I have hereunto signed my name on the day and year set forth below.

Thomas Milner  
 Inventor's Signature                                      DATE Dec. 1, 2017

Thomas Milner  
 Inventor's Printed Name

STATE OF TEXAS )  
                                                               ) SS  
 COUNTY OF TRAVIS )

On this 1st day of December, 2017, before me personally came the above  
 named Thomas Milner who is personally known by me or proved to me on the basis of satisfactory  
 evidence to be the same individual who executed the foregoing assignment, and who acknowledged to  
 me that he/she executed the same of his/her own free will for the use and purposes therein set forth.



Carrie N. Cunningham  
 NOTARY PUBLIC  
 My Commission Expires: 12/28/2017



IN WITNESS WHEREOF, I have hereunto signed my name on the day and year set forth below.

*John Rector*  
Inventor's Signature

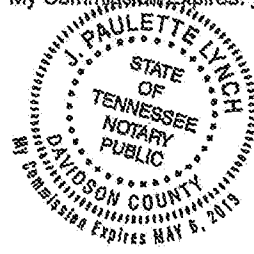
5-14-18  
DATE

John Rector  
Inventor's Printed Name

STATE OF Tennessee )  
COUNTY OF Davidson ) SS

On this 14 day of May, 2018, before me personally came the above named John Rector who is personally known by me or proved to me on the basis of satisfactory evidence to be the same individual who executed the foregoing assignment, and who acknowledged to me that he/she executed the same of his/her own free will for the use and purposes therein set forth.

*J. Paulette Lynch*  
NOTARY PUBLIC  
My Commission Expires: May 6, 2019



IN WITNESS WHEREOF, I have hereunto signed my name on the day and year set forth below.

\_\_\_\_\_  
Inventor's Signature

\_\_\_\_\_  
DATE

Nitesh Katta  
Inventor's Printed Name

STATE OF \_\_\_\_\_ )  
COUNTY OF \_\_\_\_\_ ) SS

On this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_ before me personally came the above named Nitesh Katta who is personally known by me or proved to me on the basis of satisfactory evidence to be the same individual who executed the foregoing assignment, and who acknowledged to me that he/she executed the same of his/her own free will for the use and purposes therein set forth.

\_\_\_\_\_  
NOTARY PUBLIC  
My Commission Expires: \_\_\_\_\_

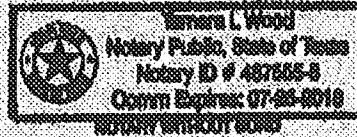
IN WITNESS WHEREOF, I have hereunto signed my name on the day and year set forth below.

  
\_\_\_\_\_  
Inventor's Signature

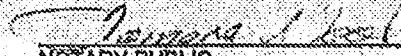
5 September 2017  
DATE

Avdin Zahediyaah  
\_\_\_\_\_  
Inventor's Printed Name

STATE OF \_\_\_\_\_ }  
COUNTY OF \_\_\_\_\_ } SS



On this 5<sup>th</sup> day of September, 2017, before me personally came the above named Avdin Zahediyaah who is personally known by me or proved to me on the basis of satisfactory evidence to be the same individual who executed the foregoing assignment, and who acknowledged to me that he/she executed the same of his/her own free will for the use and purposes therein set forth

  
\_\_\_\_\_  
NOTARY PUBLIC  
My Commission Expires: 5

IN TESTIMONY WHEREOF, a representative of BOARD OF REGENTS, THE UNIVERSITY OF TEXAS SYSTEM has signed their name on the date indicated, acknowledging acceptance of the transfer.

\_\_\_\_\_  
James L. Cox, II  
Assistant General Counsel  
Board of Regents, the University of  
Texas System

STATE OF \_\_\_\_\_ }  
COUNTY OF \_\_\_\_\_ } SS

On this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_, before me personally came the above named James L. Cox, II who is personally known by me or proved to me on the basis of satisfactory evidence to be the same individual who executed the foregoing assignment, and who acknowledged to me that he/she executed the same of his/her own free will for the use and purposes therein set forth.

\_\_\_\_\_  
NOTARY PUBLIC  
My Commission Expires: \_\_\_\_\_