504800130 03/01/2018

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4846862

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
ALLISON HUBEL	01/16/2018
JACOB HANNA	08/23/2012

RECEIVING PARTY DATA

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

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14394693

CORRESPONDENCE DATA

Fax Number:

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.

Email: request@slwip.com

Correspondent Name: SCHWEGMAN LUNDBERG & WOESSNER, P.A.

Address Line 1: P.O. BOX 2938

Address Line 4: MINNEAPOLIS, MINNESOTA 55402

ATTORNEY DOCKET NUMBER:	600.865US1	
NAME OF SUBMITTER:	COLE M. EHLERS	
SIGNATURE:	/Cole M. Ehlers/	
DATE SIGNED:	03/01/2018	

Total Attachments: 7

source = 600865 US1 Assignment Recordation # page 1.tif

source=600865US1AssignmentRecordation#page2.tif

source=600865US1AssignmentRecordation#page3.tif

source=600865US1AssignmentRecordation#page4.tif

source=600865US1AssignmentRecordation#page5.tif

PATENT REEL: 045078 FRAME: 0706

504800130

source=600865US1AssignmentRecordation#page6.tif source=600865US1AssignmentRecordation#page7.tif

PATENT REEL: 045078 FRAME: 0707

RECORDATION FORM COVER SHEET PATENTS ONLY

Atty Ref/Docket No.: 600.865US1 Patent and Trademark Office To the Director of the U.S. Patent and Trademark Office: Please record the attached original documents or copy thereof. Name and address of receiving party(ies): 1. Name of conveying party(ies): Name: Regents of the University of Minnesota Allison Hubel, Jacob Hanna Street Address: Suite 600 McNamara Alumni Ctr. 200 Oak Street SE Additional name(s) of conveying party(ies) attached? []Yes [X]No City: Minneapolis State: MN Zip: 55455 Country: United States of America 3. Nature of conveyance: Additional name(s) & address(es) attached? []Yes [X]No [X] Assignment [] Merger [] Security Agreement [] Change of Name [] Other Execution Date: January 16, 2018, August 23, 2012 4. Application number(s) or patent number(s): If this document is being filed together with a new application, the execution date of the application is: A. Patent Application No.(s) B. Patent No.(s) Serial No. 14/394,693 Additional numbers attached? []Yes [X]No 6. Total number of applications and patents involved: 1 5. Name and address of party to whom correspondence 7. Total fee (37 CFR 3.41):\$ 0.00 concerning document should be mailed: Name: David L. Buck [[Enclosed [Authorized to be charged to deposit account 19-Address: 0743 Schwegman Lundberg & Woessner, P.A. P.O. Box 2938 Please charge any additional fees or credit any over Minneapolis, Minnesota 55402--0938 payments to our Deposit Account No.: 19-0743 DO NOT USE THIS SPACE Statement and signature. To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. David L. Buck/Reg. No. 62,649 Name of Person Signing Total number of pages including cover sheet: 7 Mail documents to be recorded with required cover sheet information to: Commissioner of Patents and Trademarks Mail Stop Assignment Recordation Services P.O. Box 1450

Alexandria, VA 22313-1450

PATENT REEL: 045078 FRAME: 0708



University of Minnesota

ASSIGNMENT

WHEREAS I, Allison Hubel, have invented certain new and useful improvements in INLET AND OUTLET GEOMETRIES FOR A VERTICAL THREE-STREAM MICROFLUIDIC DEVICE, for which applications for Letters Patent of the United States have been made, said applications being filed as follows: Provisional application no. 61/625,498 on April 17, 2012, PCT application no. PCT/US2013/36933 on April 17, 2013, Utility application no. 14/394,693 on October 15, 2014, Utility application no. 15/383,374 on December 19, 2016, European Patent Office application no. 13718763.9 on April 17, 2013, and Japan application no. 2015-507141 on April 17, 2013, ("Application(s)");

Whereas, REGENTS OF THE UNIVERSITY OF MINNESOTA ("Assignee"), having offices at Suite 600 McNamara Alumni Ctr., 200 Oak Street SE, Minneapolis, MN 55455, 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 No. 600,865US1 UM Case No. 20120069

į

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.

	, I have hereunto set my hand on thisday of
	110011.0
	Allison Hubel
STATE OF Minesoka	
COUNTY OF HENNEPIL	`))
On this 16th day of _	January . 2018, before me personally
appeared Allison Hubel, to me kno	own to be the person described in and who executed the
	ledged 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 seal of my office, the day and year above written.

Notary Public

RESA M. GILATS
RESA M. GILATS
Notary Public-Minnesota
My Commission Expires Jan 81, 2021

Attorney Docket No. 600.865US1 UM Case No. 20120069

3.	ave hereunto set my hand on this day half of Assignee Regents of the University of
	Paul B. Savereide Senior Associate General Counsel per Presidential Delegation DA_028016
the foregoing instrument and acknow deed.	January 2018, before me personally known to be the person described in and who executed ledged that s/he executed the same as his/her free act and
IN WITNESS WHEREOF, I I of my office, the day and year above w	nave hereunto affixed my official signature with the seal critten. Notary Public

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

Attorney Docket No. 600,865US1 UM Case No. 20120069

ASSIGNMENT

WHEREAS, Allison Hubel, and Jacob Hanna (hereinafter the "Undersigned") have made one or more inventions and other subject matter (hereinafter collectively referred to as the "Invention") which are described in a patent application filed on April 17, 2012, which application was assigned US patent application serial number 61/625,498, and which is titled INLET AND OUTLET GEOMETRIES FOR A VERTICAL THREE-STEAM MICROFLUIDIC DEVICE.

FOR GOOD AND VALUABLE CONSIDERATION, the receipt, sufficiency, and adequacy of which are hereby acknowledged by the Undersigned, the Undersigned do hereby irrevocably and unconditionally:

CONVEY, ASSIGN, AND TRANSFER to Regents of the University of Minnesota (the "Assignee"), an entity of the State of Minnesota, having a place of business at 1000 Westgate Drive, Suite 160, St. Paul, MN 55114-8658, the Undersigned's entire right, title, and interest for the United States and all foreign countries and jurisdictions in and to:

the Invention which is disclosed in the above-identified application or applications;

such application or applications, and all divisional, continuing (including continuation-in-part), substitute, renewal, reissue, and all other applications for a patent or patents which have been or shall be filled in the United States (including all provisional and non-provisional applications), and **in** all foreign countries and jurisdictions based in whole or in part on any of such invention (including any application for a utility model or an innovation patent application);

all original and reissued patents which have been or shall be issued in the United States and all foreign countries and jurisdictions based in whole or in part on any of such invention;

Including the right to daim priority to the above-identified patent application or applications in relation to subject matter based in whole or in part on the above-identified patent application or applications and any of the foregoing including the right to file foreign applications under the provisions of any convention or treaty;

and including the right to all causes of action, remedies, and other enforcement rights related to the above-identified application or applications, including without limitation the right to sue for past, present, or future infringement, misappropriation, or violation of any and all rights related to the above-identified patent application or applications and any of the foregoing, including the right to obtain and collect damages for past, present, or future infringement;

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

AUTHORIZE AND REQUEST that any attorney associated with U.S. Patent and Trademark Office (USPTO) Customer No. 21186 may (directly or through his/her designee) delete, insert, or alter any information related to the above-identified patent application or applications or any of the foregoing, after execution of this Assignment;

PATENT REEL: 045078 FRAME: 0712 WARRANT AND COVENANT that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been or shall 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, that when requested and without compensation, but at the expense of the Assignee, in order to carry out in good faith the intent and purpose of this Assignment, the Undersigned shall (1) execute all provisional, non-provisional, divisional, continuing (including continuation-in-part), substitute, renewal, reissue, and all other patent applications for the invention; (2) execute all rightful oaths, declarations, assignments, powers of attorney and other papers for the Invention; (3) communicate to the Assignee all facts known to the Undersigned relating to the invention and the history thereof; (4) cooperate with the Assignee in any interference, reexamination, reissue, opposition, dispute, or litigation involving any of the applications or patents for the Invention; and (5) take such further actions as the Assignee shall reasonably consider necessary or desirable for vesting title to such Invention in the Assignee, or for securing, maintaining and enforcing proper patent protection for the Invention;

COVENANT, that should any provision of this agreement be held unenforceable by an authority of competent jurisdiction, such a ruling shall not affect the validity and enforceability of the remaining provisions. To the extent that any such provision is found to be unenforceable, the Undersigned, when requested and without compensation shall act in good faith to substitute for such provision a new provision with content and purpose as close as possible to the provision deemed unenforceable.

THIS AGREEMENT IS TO BE BINDING on the heirs, assigns, representatives, and successors of the Undersigned, and is to extend to the benefit of the successors, assigns, and nominees of the Assignee.

AGREED as of the date of my signature below:

Assignment Assignors: Allison Hubel et al.

Docket No: 600.865PRV Client Ref. No. RO120120069

Title: INLET AND OUTLET GEOMETRIES FOR A VERTICAL THREE-STEAM MICROFLUIDIC DEVICE Page 4 of 4

Assignor: (Signature): Name: Jacob Hanna City/State: Milwaukee, WI STATE OF WA)55

On this 23 day of Que 20 20 before me personally appeared Jacob Hanna, to me known and known to me to be the person described in and who executed the foregoing instrument, and he/she duly acknowledged to me that he/she executed the same for the uses and purposes therein set forth.

[SEAL]

Notary Public

00p. sleptember 2, 2012

PATENT

REEL: 045078 FRAME: 0714

RECORDED: 03/01/2018