

<b>PATENT ASSIGNMENT COVER SHEET</b>
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Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT5629479

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
OMAR B. AYYUB	04/23/2019
ADAM BEHRENS	03/06/2019
PETER KOFINAS	03/01/2019
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	UNIVERSITY OF MARYLAND, COLLEGE PARK
<b>Street Address:</b>	7999 REGENTS DRIVE
<b>City:</b>	COLLEGE PARK
<b>State/Country:</b>	MARYLAND
<b>Postal Code:</b>	20742-5213
<b>PROPERTY NUMBERS Total: 5</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	61872149
<b>Application Number:</b>	15933834
<b>Application Number:</b>	62153409
<b>PCT Number:</b>	US2016029623
<b>PCT Number:</b>	US2014053756
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(301)314-9502
<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>	3014053947
<b>Email:</b>	Patents@Umd.edu
<b>Correspondent Name:</b>	UNIVERSITY OF MARYLAND COLLEGE PARK
<b>Address Line 1:</b>	7999 REGENTS DRIVE, 2130 MITCHELL BLDG.
<b>Address Line 2:</b>	ATTN: CHARLENE THOMPSON
<b>Address Line 4:</b>	COLLEGE PARK, MARYLAND 20742-5213
<b>ATTORNEY DOCKET NUMBER:</b>	LS-2013-042
<b>NAME OF SUBMITTER:</b>	CHARLENE E. THOMPSON
<b>SIGNATURE:</b>	/Charlene E. Thompson/
<b>DATE SIGNED:</b>	07/22/2019

PATENT

**Total Attachments: 6**

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INTELLECTUAL PROPERTY ASSIGNMENT AGREEMENT

THIS AGREEMENT by and between: Omar B. Ayyub an individual having a principal residence at 11429 Palatine Dr., Potomac, MD 20854 (hereinafter referred to as "Assignor"), and the University of Maryland, College Park (hereinafter referred to as "Assignee").

WITNESSETH:

WHEREAS, Assignor has created and developed certain inventions, improvements, discoveries, software, or other intellectual property, as described in Assignee Invention Disclosure No. LS-2013-042 entitled "POINT OF CARE DETECTION OF HYPERAMMONEMIA" and further described in the patent applications listed in Appendix A and any and all application(s) for Letters Patent in the United States of America and throughout the world, and all divisional, continuation, continuation-in-part, substitutions, renewals, reissues, extensions and other applications pertaining to the foregoing which have or shall be filed in the United States, any foreign country and other jurisdictions (hereinafter collectively referred to as the "Works"); and

WHEREAS, Assignor agrees that, to the extent the Works are, by operation of law or otherwise, not deemed to be works made for hire within the meaning of the Copyright Act, (Title 17, U.S.C. Section 101, et seq.), Assignor agrees to assign all of his/her right, title and interest in and to the Works to Assignee, and further agrees to take such further actions and to execute such further instruments that Assignee might find reasonable or necessary to perfect or to evidence more clearly its right and claim to exclusive ownership of all of Assignor's worldwide intellectual property interests respecting the Works; and

WHEREAS, Assignor and Assignee now wish to perfect and to evidence more clearly the right and claim of Assignee to exclusive ownership of all of Assignor's intellectual property interests respecting the Works.

NOW, THEREFORE, in consideration of the rights granted to Assignor under the University of Maryland Policy on Intellectual Property, as approved by the Board of Regents of the University of Maryland, and as amended by them from time to time, and other good and valuable consideration furnished by Assignee to Assignor, the receipt and sufficiency of which are hereby acknowledged, Assignor and Assignee, intending to be legally bound, do hereby covenant and agree as follows:

Section 1. Assignment of the Works.

Assignor hereby assigns, transfers and conveys to Assignee, its successors, assigns or other legal representatives, without the necessity of any consideration in addition to that recited herein, all of Assignor's right, title and interest in and to the Works. This assignment shall be operative with respect to all intellectual property rights in and to the Works, including (without limitation), (i) all copyrights in the United States and elsewhere, including all rights of registration, publication, renewal, rights to create derivative works and all other rights incident to copyright ownership, for the residue now unexpired of the present term of any and all such copyrights and any term thereafter granted during which the Works are entitled to copyright; (ii) all trade secrets, inventions, know-how, ideas and confidential information embodied or reflected in the Works, including any shop rights, for the longest period of protection accorded to such interest under applicable law; and (iii) all patent rights in the United States and elsewhere, including all rights of registration, publication, renewal, and all other works incident to copyright ownership, for the longest period of protection accorded to such interests under applicable law.

Section 2. University of Maryland Copyright and Patent Policies.

The assignment of rights perfected hereunder shall be governed by the University of Maryland Policy on Intellectual Property as approved by the Board of Regents of the University of Maryland, and as amended by them from time to time. Royalty income shall be allocated as set forth in those policies.


Section 3. Warranty.

Assignor warrants and covenants that he/she is an author or inventor of the Works and that as of the date of this Assignment, has taken no action respecting the Works which purports or attempts to transfer or encumber any right, title or interest in or to the Works to any other party; and covenants not to take such action in the future.

Section 4. Jurisdiction.

The validity, interpretation, and effect of this agreement shall be governed by the laws of the State of Maryland and of the United States of America. Any legal proceedings involving claims or disputes regarding this agreement shall be brought in the appropriate court in the State of Maryland.

WHEREAS, the parties have caused this Assignment to be executed on the dates below.

ASSIGNOR  
Agreed to by: 

Printed Name: Omar AYYUB  
Inventor

Date: 4/23/19

ASSIGNEE (University of Maryland)  
Acknowledged and Agreed to by:

  
Printed Name: Felicia Metz  
Associate Director

Date: 6-21-19

## APPENDIX A

Assignee Disclosure No.	Country	Patent Application No.	Filing Date	Title	Issued Patent No.	Issue Date
LS-2013-042	U.S. Prov.	61/872149	08/30/2013	POINT OF CARE DETECTION OF HYPERAMMONEMIA		
	PCT	US2014/053756	09/02/2014	DEVICE AND		
	US	14/915,602	02/29/2016	METHODS OF		
	US	15/933,834	03/23/2018	USING DEVICE FOR		
	Europe	14841207.5	09/02/2014	DETECTION OF	3039422	01/09/2019
	Canada	2922821	09/02/2014	HYPERAMMONEMIA		
	Japan	2016537941	09/02/2014			
	Australia	2014311977	09/02/2014			
	China	201480057514.9	09/02/2014			
	Korea	1020167008373	09/02/2014			
	Israel	244274	09/02/2014			
	Brazil	BR112016004320-0	09/02/2014			
	Mexico	MX/a/2016/002632	09/02/2014			
	Columbia	16051864	09/02/2014			
	Chile	2016-00467	09/02/2014			
	UAE	P215/2016	09/02/2014			
	Oman	P/2016/00053	09/02/2014			
	Saudi Arabia	516370640	09/02/2014			
	U.S. Prov.	62/153,409	04/27/2015		NA	NA
	PCT	US2016/029623	04/27/2016			
US	15/570,269	10/27/2017				
Australia	2016255825	04/27/2016				
Europe	16787096.3	04/27/2016				

**INTELLECTUAL PROPERTY ASSIGNMENT AGREEMENT**

THIS AGREEMENT by and between: **Adam Behrens** an individual having a principal residence at **15 Trowbridge St. Apt. 2, Cambridge, MA 02138** (hereinafter referred to as "Assignor"), and the **University of Maryland, College Park** (hereinafter referred to as "Assignee").

WITNESSETH:

WHEREAS, Assignor has created and developed certain inventions, improvements, discoveries, software, or other intellectual property, as described in Assignee Invention Disclosure No. **LS-2013-042** entitled "**POINT OF CARE DETECTION OF HYPERAMMONEMIA**" and further described in the patent applications listed in Appendix A and any and all application(s) for Letters Patent in the United States of America and throughout the world, and all divisional, continuation, continuation-in-part, substitutions, renewals, reissues, extensions and other applications pertaining to the foregoing which have or shall be filed in the United States, any foreign country and other jurisdictions (hereinafter collectively referred to as the "Works"); and

WHEREAS, Assignor agrees that, to the extent the Works are, by operation of law or otherwise, not deemed to be works made for hire within the meaning of the Copyright Act, (Title 17, U.S.C. Section 101, et seq.), Assignor agrees to assign all of his/her right, title and interest in and to the Works to Assignee, and further agrees to take such further actions and to execute such further instruments that Assignee might find reasonable or necessary to perfect or to evidence more clearly its right and claim to exclusive ownership of all of Assignor's worldwide intellectual property interests respecting the Works; and

WHEREAS, Assignor and Assignee now wish to perfect and to evidence more clearly the right and claim of Assignee to exclusive ownership of all of Assignor's intellectual property interests respecting the Works.

NOW, THEREFORE, in consideration of the rights granted to Assignor under the University of Maryland Policy on Intellectual Property, as approved by the Board of Regents of the University of Maryland, and as amended by them from time to time, and other good and valuable consideration furnished by Assignee to Assignor, the receipt and sufficiency of which are hereby acknowledged, Assignor and Assignee, intending to be legally bound, do hereby covenant and agree as follows:

**Section 1. Assignment of the Works.**

Assignor hereby assigns, transfers and conveys to Assignee, its successors, assigns or other legal representatives, without the necessity of any consideration in addition to that recited herein, all of Assignor's right, title and interest in and to the Works. This assignment shall be operative with respect to all intellectual property rights in and to the Works, including (without limitation), (i) all copyrights in the United States and elsewhere, including all rights of registration, publication, renewal, rights to create derivative works and all other rights incident to copyright ownership, for the residue now unexpired of the present term of any and all such copyrights and any term thereafter granted during which the Works are entitled to copyright; (ii) all trade secrets, inventions, know-how, ideas and confidential information embodied or reflected in the Works, including any shop rights, for the longest period of protection accorded to such interest under applicable law; and (iii) all patent rights in the United States and elsewhere, including all rights of registration, publication, renewal, and all other works incident to copyright ownership, for the longest period of protection accorded to such interests under applicable law.

**Section 2. University of Maryland Copyright and Patent Policies.**

The assignment of rights perfected hereunder shall be governed by the University of Maryland Policy on Intellectual Property as approved by the Board of Regents of the University of Maryland, and as amended by them from time to time. Royalty income shall be allocated as set forth in those policies.

**Section 3. Warranty.**

Assignor warrants and covenants that he/she is an author or inventor of the Works and that as of the date of this Assignment, has taken no action respecting the Works which purports or attempts to transfer or encumber any right, title or interest in or to the Works to any other party; and covenants not to take such action in the future.

**Section 4. Jurisdiction.**

The validity, interpretation, and effect of this agreement shall be governed by the laws of the State of Maryland and of the United States of America. Any legal proceedings involving claims or disputes regarding this agreement shall be brought in the appropriate court in the State of Maryland.

WHEREAS, the parties have caused this Assignment to be executed on the dates below.

ASSIGNOR  
Agreed to by: Adam Behrens  
DocuSigned by:  
347425AC6C4B482...

Printed Name: **Adam BEHRENS**  
Inventor  
Date: 3/6/2019

Date: \_\_\_\_\_

ASSIGNEE (University of Maryland)  
Acknowledged and Agreed to by:

Felicia Metz  
Printed Name: Felicia Metz  
Associate Director

Date: 6-21-19

## APPENDIX A

Assignee Disclosure No.	Country	Patent Application No.	Filing Date	Title	Issued Patent No.	Issue Date
LS-2013-042	U.S. Prov.	61/872149	08/30/2013	POINT OF CARE DETECTION OF HYPERAMMONEMIA DEVICE AND METHODS OF USING DEVICE FOR DETECTION OF HYPERAMMONEMIA		
	PCT	US2014/053756	09/02/2014			
	US	14/915,602	02/29/2016			
	US	15/933,834	03/23/2018			
	Europe	14841207.5	09/02/2014		3039422	01/09/2019
	Canada	2922821	09/02/2014			
	Japan	2016537941	09/02/2014			
	Australia	2014311977	09/02/2014			
	China	201480057514.9	09/02/2014			
	Korea	1020167008373	09/02/2014			
	Israel	244274	09/02/2014			
	Brazil	BR112016004320-0	09/02/2014			
	Mexico	MX/a/2016/002632	09/02/2014			
	Columbia	16051864	09/02/2014			
	Chile	2016-00467	09/02/2014			
	UAE	P215/2016	09/02/2014			
	Oman	P/2016/00053	09/02/2014			
	Saudi Arabia	516370640	09/02/2014			
	U.S. Prov.	62/153,409	04/27/2015		NA	NA
	PCT	US2016/029623	04/27/2016			
US	15/570,269	10/27/2017				
Australia	2016255825	04/27/2016				
Europe	16787096.3	04/27/2016				

INTELLECTUAL PROPERTY ASSIGNMENT AGREEMENT

THIS AGREEMENT by and between: Peter Kofinas an individual having a principal residence at 5809 Nicholson Lane #610, N. Bethesda, MD 20852 (hereinafter referred to as "Assignor"), and the University of Maryland, College Park (hereinafter referred to as "Assignee").

WITNESSETH:

WHEREAS, Assignor has created and developed certain inventions, improvements, discoveries, software, or other intellectual property, as described in Assignee Invention Disclosure No. LS-2013-042 entitled "POINT OF CARE DETECTION OF HYPERAMMONEMIA" and further described in the patent applications listed in Appendix A and any and all application(s) for Letters Patent in the United States of America and throughout the world, and all divisional, continuation, continuation-in-part, substitutions, renewals, reissues, extensions and other applications pertaining to the foregoing which have or shall be filed in the United States, any foreign country and other jurisdictions (hereinafter collectively referred to as the "Works"); and

WHEREAS, Assignor agrees that, to the extent the Works are, by operation of law or otherwise, not deemed to be works made for hire within the meaning of the Copyright Act, (Title 17, U.S.C. Section 101, et seq.), Assignor agrees to assign all of his/her right, title and interest in and to the Works to Assignee, and further agrees to take such further actions and to execute such further instruments that Assignee might find reasonable or necessary to perfect or to evidence more clearly its right and claim to exclusive ownership of all of Assignor's worldwide intellectual property interests respecting the Works; and

WHEREAS, Assignor and Assignee now wish to perfect and to evidence more clearly the right and claim of Assignee to exclusive ownership of all of Assignor's intellectual property interests respecting the Works.

NOW, THEREFORE, in consideration of the rights granted to Assignor under the University of Maryland Policy on Intellectual Property, as approved by the Board of Regents of the University of Maryland, and as amended by them from time to time, and other good and valuable consideration furnished by Assignee to Assignor, the receipt and sufficiency of which are hereby acknowledged, Assignor and Assignee, intending to be legally bound, do hereby covenant and agree as follows:

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WHEREAS, the parties have caused this Assignment to be executed on the dates below.

ASSIGNOR
Agreed to by: Peter Kofinas

Printed Name: Peter KOFINAS
Inventor

Date: 3/1/2019

ASSIGNEE (University of Maryland)
Acknowledged and Agreed to by: Kenneth Porter

Printed Name: Kenneth Porter
Director

Date: 16 July 2019

APPENDIX A

Assignee Disclosure No.	Country	Patent Application No.	Filing Date	Title	Issued Patent No.	Issue Date	
LS-2013-042	U.S. Prov.	61/872149	08/30/2013	POINT OF CARE DETECTION OF HYPERAMMONEMIA			
	PCT	US2014/053756	09/02/2014	DEVICE AND METHODS OF USING DEVICE FOR DETECTION OF HYPERAMMONEMIA			
	US	14/915,602	02/29/2016				
	US	15/933,834	03/23/2018				
	Europe	14841207.5	09/02/2014		3039422	01/09/2019	
	Canada	2922821	09/02/2014				
	Japan	2016537941	09/02/2014				
	Australia	2014311977	09/02/2014				
	China	201480057514.9	09/02/2014				
	Korea	1020167008373	09/02/2014				
	Israel	244274	09/02/2014				
	Brazil	BR112016004320-0	09/02/2014				
	Mexico	MX/a/2016/002632	09/02/2014				
	Columbia	16051864	09/02/2014				
	Chile	2016-00467	09/02/2014				
	UAE	P215/2016	09/02/2014				
	Oman	P/2016/00053	09/02/2014				
	Saudi Arabia	516370640	09/02/2014				
	U.S. Prov.	62/153,409	04/27/2015			NA	NA
	PCT	US2016/029623	04/27/2016				
US	15/570,269	10/27/2017					
Australia	2016255825	04/27/2016					
Europe	16787096.3	04/27/2016					