505657777 09/06/2019

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
MUYINATU BELL	08/23/2019
EMAD M. BOCTOR	09/03/2019
PETER KAZANZIDES	09/03/2019

RECEIVING PARTY DATA

Name:	THE JOHNS HOPKINS UNIVERSITY	
Street Address:	3400 N. CHARLES STREET	
City:	BALTIMORE	
State/Country:	MARYLAND	
Postal Code:	21218	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	14611628

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: avanatta@harrityllp.com

Correspondent Name: HARRITY & HARRITY LLP

Address Line 1: 11350 RANDOM HILLS ROAD

Address Line 2: SUITE 600

Address Line 4: FAIRFAX, VIRGINIA 22030

ATTORNEY DOCKET NUMBER:	0105-0012	
NAME OF SUBMITTER:	RACHEL ALLEN	
SIGNATURE:	/Rachel Allen/	
DATE SIGNED:	09/06/2019	

Total Attachments: 4

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PATENT 505657777 REEL: 050288 FRAME: 0247

JHU Docket No: C12861_P12861-02

WORLDWIDE ASSIGNMENT

NB

WHEREAS, We, Muyinatu BELL of 10 this way Circle, with James, Mo. 21209 WHEREAS, We, Muyinatu BELL of 10 this way Circle, with James, MD 21386, Emad M. BOCTOR, of 2632A Green Meadow Parkway, Apt. A, Baltimore, MD 21209 US, and Peter KAZANZIDES of 10 Forest Ridge CL, Lutherville, MD 21093; hereinafter collectively referred to as the ASSIGNOR(s), have invented a certain new and useful improvement relating to METHOD AND SYSTEM FOR TRANSCRANIAL PHOTOACOUSTIC IMAGING FOR GUIDING SKULL BASE SURGERIES (JHU Ref. No. C12861_P12861-02), hereinafter referred to as the INVENTION(s), for which an application was filed in the United States Patent and Trademark Office on February 2, 2015, as United States Patent Application Number 14/611.628.

WHEREAS, The Johns Hopkins University, a corporation duly organized under the laws of the State of Maryland, having a place of business at 3400 N. Charles Street, Bultimore, Maryland 21218, USA, hereinafter referred to as the ASSIGNEE, is desirous of acquiring the entire right, title, and interest in and to the INVENTION(s) and the APPLICATION(s) and each and every priority right that is or may be predicated upon or arise from the INVENTION(s) and APPLICATION(s), including any divisions, continuations, substitutions, renewals, reissues, reexaminations, and extensions thereof, and any and all applications claiming priority therefrom, and the entire right, title, and interest in and to any and all Letters Patent which may be granted therefor in the United States and its territorial possessions and in any and all foreign countries;

NOW, THEREFORE, that for good and sufficient consideration, the receipt and sufficiency of which is bereby acknowledged, ASSIGNOR(s) hereby sells, assigns, transfers, and sets over, and has assigned, sold. transferred, and set over, to ASSIGNEE, its successors, legal representatives, and assigns, the entire right, title, and interest in and to the invention(s) and the APPLICATION(s) and each and every priority right that is or may be predicated upon or arise from the Invention(s) and APPLICATION(s), including any divisions, continuations, substitutions, renewals, reissues, reexaminations, and extensions thereof, and any and all applications claiming priority therefrom, and the entire right, title, and interest in and to any and all Letters Patent which may be granted therefor in the United States and its tetritorial possessions and in any and all foreign countries, the same to be held and enjoyed by ASSIGNEE, for its own use and benefit and for the use and benefit of its successors, legal representatives, and assigns, to the full end of the term or terms for which Letters Patent may be granted and/or extended, as fully and entirely as the same would have been held and enjoyed by ASSIGNOR(s), had this sale and assignment not been made:

AND for the same consideration, ASSIGNOR(s) hereby represent and warrant to ASSIGNEE, its successors, legal representatives, and assigns, that, at the time of execution and delivery of these presents, except for any rights, titles and/or interests that have arisen to ASSIGNEE under law or that have already been transferred to ASSIGNEE, ASSIGNOR(s) are the sole and lawful owners of the entire right, title and interest in and to the INVENTION(s) and APPLICATION(s) for Letters Patent, and that the same are unencumbered, and that ASSIGNOR(s) have good and full right and lawful authority to sell and convey the same in the manner set forth herein;

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AND for the same consideration, ASSIGNOR(s) hereby covenant and agree to and with ASSIGNEE, its successors, legal representatives, and assigns, that ASSIGNOR(s) will sign, execute, and deliver to ASSIGNEE all papers and documents, including, but not limited to, petitions, specifications, oaths, assignments, invention disclaimers, declarations, and lawful affidavits in form and substance that may be requested by ASSIGNEE, to communicate to or furnish ASSIGNEE with any and all facts relating to the INVENTION(s) or the history thereof and any and all documents, data, photographs, models, samples, prototypes, biological deposits, or other physical exhibits which may embody the INVENTION(s), to testify in any proceedings relating to the INVENTION(s). patent applications, and/or Letters Patent, take all lawful oaths, and otherwise do all acts necessary or required to be done for the procurement, maintenance, enforcement, and defense of any Letters Patent and applications for Letters Patent for said INVENTION(s), without charge to ASSIGNEE, its successors, legal representatives and assigns, whenever counsel of ASSIGNEE, or counsel of its successors, legal representatives, and assigns, shall advise that any proceeding, including, but not limited to, interference proceedings, in connection with said INVENTION(s), or said APPLICATION(s) for Lefters Patent, or Letters Patent, and each and every priority right that is or may be predicated upon or arise from the INVENTION(s) and APPLICATION(s), including any divisions, continuations, substitutions, renewals, reissues, reexaminations, and extensions thereof, and any and all applications claiming priority therefrom, in the United States and its territorial possessions and in any and all foreign countries is lawful and desirable;

AND ASSIGNOR(s) hereby authorize and request the Patent Office Officials in the United States and its territorial possessions, including the Commissioner of Patent and Trademarks, and Patent Office Officials in any and all foreign countries to issue any and all of said Letters Patent, when granted, to ASSIGNEE as the assignee of my/our entire right, title, and interest in said INVENTION(s) and the Letters Patent to be assued thereon, for the sole use and benefit of ASSIGNEE, its successors, legal representatives, and assigns, to the full end of the term or terms for which said Letters Patent may be granted, as fully and entirely as the same would have been held by ASSIGNOR(s) had this Assignment not been made;

AND ASSIGNOR(s) hereby grant an authorized representative of ASSIGNEE the power to insert in this Assignment any further identification, including the application number(s) and filing date(s), which may be necessary or desirable to comply with the rules of the United States Patent and Trademark Office for recordation of this Assignment;

AND ASSIGNOR(s) acknowledge an obligation of assignment in this invention to ASSIGNEE at the time the invention was made;

AND this Assignment is deemed to be effective at least as early as January 31, 2014.

IN WITNESS WHEREOF, each individual collectively referred to as ASSIGNOR has caused this Assignment to be executed.

EXECUTED this 25 day of 44545, 201	19.	
ASSIGNOR: Muyinam BELL	WITNESS:	
Signature: Muyinch Cell	Signature:	
Name: Mujinktu Bell	Name:	
EXECUTED this day of, 201	9,	
ASSIGNOR: Emad M. BOCTOR	WITNESS:	
Signature:	Signature:	
Name:	Name:	
EXECUTED this day of, 201	9,	
ASSIGNOR: Peter KAZANZIDES	WITNESS	
Signature:	Signature:	
Name:	Name:	

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EXECUTED this day of, 2019,	
ASSIGNOR: Muyinatu BELL	WITNESS
Signature:	Signature:
Name:	Name:
EXECUTED this _3_ day of _Sept, 2019.	
ASSIGNOR: East M BOCTOR	WITNESS: OI
Signature 104	Signature: 44-2/
Name: LAGA Balo/	Name: Peter Kazawzides
EXECUTED this 3 day of Sept. 2019.	,
ASSIGNOR: PAGE KAZANZIDES	WITNESS: /
Signature: 14 2 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Signature: 4
Name: Peter Kazauzides	Name: Emed Barbor

PATENT REEL: 050288 FRAME: 0251

RECORDED: 09/06/2019