

## PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT5132515

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
PAUL F. WORLEY	09/10/2018
DESHENG XU	09/10/2018
MEIFANG XIAO	09/10/2018
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	THE JOHNS HOPKINS UNIVERSITY
<b>Street Address:</b>	3400 N. CHARLES STREET
<b>City:</b>	BALTIMORE
<b>State/Country:</b>	MARYLAND
<b>Postal Code:</b>	21218
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	15511860
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(410)614-8425
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<b>Address Line 4:</b>	BALTIMORE, MARYLAND 21205
<b>ATTORNEY DOCKET NUMBER:</b>	P12095-04
<b>NAME OF SUBMITTER:</b>	CHERYL OLIVER
<b>SIGNATURE:</b>	/Cheryl Oliver/
<b>DATE SIGNED:</b>	09/10/2018
<b>Total Attachments: 3</b>	
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source=P12095-04_SignedAssignment#page3.tif	

## WORLDWIDE ASSIGNMENT

WHEREAS, We, Paul F. Worley, DeSheng Xu, Meifang Xiao; hereinafter collectively referred to as the ASSIGNOR(s), have invented a certain new and useful improvement relating to BIOMARKERS OF COGNITIVE DYSFUNCTION, hereinafter referred to as the INVENTION(s), for which an application was filed in the United States Patent and Trademark Office on March 16, 2017, as United States Patent Application Number 15/511,860, in addition to:

- [X] said application(s) having been filed under the Patent Cooperation Treaty in the United States Receiving Office on September 18, 2015, and given International Application Number PCT/US2015/050884, and:
- [X] said application(s) having been filed as U.S. Provisional Patent Application(s) on September 19, 2014 and September 17, 2015, and given Application No.(s) 62/052,612 and 62/219,867; wherein all applications listed above being hereinafter referred to as the APPLICATION(s);

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, Baltimore, 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 hereby 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 territorial 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;

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 Letters 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;

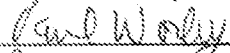
AND ASSIGNOR(s) hereby authorize and request the Patent Office Officials in the United States and its territorial possessions, including the Commissioner of Patent and Trademarks, and Patent Office Officials in any and all foreign countries to issue any and all of said Letters Patent, when granted, to ASSIGNEE as the assignee of my/our entire right, title, and interest in said INVENTION(s) and the Letters Patent to be issued 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;

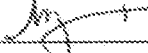
AND ASSIGNOR(s) hereby grant an authorized representative of ASSIGNEE the power to insert in this Assignment any further identification, including the application number(s) and filing date(s), which may be necessary or desirable to comply with the rules of the United States Patent and Trademark Office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

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

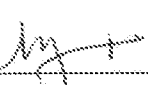
EXECUTED this 10<sup>th</sup> day of September 2018.

ASSIGNOR: **Paul F. Worley**  
Signature:   
Name: Paul Worley

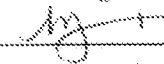
WITNESS:  
Signature:   
Name: MEIFANG XIAO

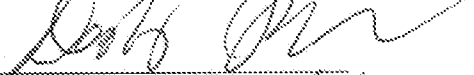
EXECUTED this 10<sup>th</sup> day of September 2018.

ASSIGNOR: **DeSheng Xu**  
Signature:   
Name: DESHENG XU

WITNESS:  
Signature:   
Name: MEIFANG XIAO

EXECUTED this 10<sup>th</sup> day of September 2018.

ASSIGNOR: **Meifang Xiao**  
Signature:   
Name: MEIFANG XIAO

WITNESS:  
Signature:   
Name: DESHENG XU