505334573 02/19/2019

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5381354

SUBMISSION TYPE:		NEW ASSIGNMENT		
NATURE OF CONVEYANCE:		ASSIGNMENT		
CONVEYING PARTY D	ΑΤΑ			
		Name		Execution Date
XIAOWEI ZHUANG				11/17/2008
RECEIVING PARTY DA	ТА			
Name:	HOWARD HUGHES MEDICAL INSTITUTE			
Street Address:	4000 JONES BRIDGE ROAD			
City:	CHEVY CHASE			
State/Country:	MARYLAND			
Postal Code:	20815			
PROPERTY NUMBERS	Total: 1			
Property Type		Number		
Application Number:	14	821569		
CORRESPONDENCE D	ΑΤΑ			
Fax Number:	•	17)495-9568 he e-mail address first: if that	t is unsu	ccessful, it will be sent
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HHMI HOWARD HUGHES MEDICAL INSTITUTE



November 20, 2008

Xiaowei Zhuang, DPhil Investigator Howard Hughes Medical Institute Harvard University Department of Chemistry and Chemical Biology 12 Oxford Street Cambridge, MA 02138

Dear Dr. Zhuang:

I have received the executed form assigning your rights in the invention entitled "Sub-Diffraction Limit Image Resolution in Three Dimensions," which is set forth on the invention disclosure dated December 13, 2007 (the "Invention"). HHMI has adopted the practice of appointing you as HHMI's agent for the purpose of assigning its rights in the Invention to President and Fellows of Harvard College ("Institution"), as required under the collaborative arrangement between HHMI and Institution. Enclosed with this letter is an executed document appointing you as HHMI's agent for this purpose. I am sending a copy of the assignment(s), this letter and its enclosure to Denlyn K. Atherton at Institution.

As you are probably aware, you will be asked to execute an assignment of rights to Institution in the event a patent application is filed with respect to the Invention. To ensure that HHMI's rights are properly assigned to Institution, it is important that you have the enclosed executed document with you when you execute that assignment and that, after your signature, you write in "for herself and as agent for the Howard Hughes Medical Institute." If you have any questions at all about this procedure or your role in it, please contact me.

Sincerely,

>2 SULL

Sue S. Ohata Manager of Intellectual Property

Enclosure cc: Ms. Denlyn K. Atherton

Sue S. Ohata Manager of Intellectual Property 204000 4000 Jones Bridge Road Chevy Chase, Maryland 20815-6789 301,215,6500 • Fax 240,497,2322 • ohatas@hhmi.org

> PATENT REEL: 048368 FRAME: 0276

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APPOINTMENT OF INVESTIGATOR AS AGENT

Appointment by the Howard Hughes Medical Institute ("HHMI") of Xiaowei Zhuang, DPhil, an employee of HHMI, as its agent for the purpose of assigning certain rights to President and Fellows of Harvard College ("Institution").

WHEREAS, HHMI and Institution collaborate in the active conduct of medical research pursuant to an Agreement between them dated as of April 14, 2003 (the "Agreement");

WHEREAS, pursuant to the Agreement, HHMI has agreed to assign to Institution HHMI's rights with respect to inventions, discoveries, improvements, and other intellectual property, whether patentable or copyrightable (each a "Subject Property"), conceived or reduced to practice in the course of the research program conducted under the Agreement by employees of HHMI;

WHEREAS, research conducted pursuant to the Agreement by Xiaowei Zhuang, DPhil while employed by HHMI at Institution has resulted in the invention of a certain Subject Property entitled "Sub-Diffraction Limit Image Resolution in Three Dimensions," which is the subject of a patent application entitled "Sub-Diffraction Limit Image Resolution in Three Dimensions" filed in the U.S. Patent and Trademark Office on December 21, 2007 with Serial Number 61/008,661 (the "Invention"), and the Invention is a Subject Property; and

WHEREAS, HHMI wishes Xiaowei Zhuang, DPhil to act as its agent for the purpose of assigning to Institution the rights HHMI has in the Invention by reason of the research program conducted at Institution.

NOW THEREFORE, HHMI hereby appoints Xiaowei Zhuang, DPhil as its agent for the purpose of assigning the rights HHMI has or may acquire in the Invention by reason of the research program conducted at Institution to Institution in accordance with and subject to the conditions of the Agreement.

Executed: November 20, 2008

HOWARD HUGHES MEDICAL INSTITUTE

By:

Jack E. Dixon, PhD Vice President and Chief Scientific Officer

ATTESTED: Cong A. Addard

Craig A Alexander Vice President and General Counsel

Harvard 3114 HHMI 04049

ASSIGNMENT

Assignment made <u>17 November</u>, 2008 by Xiaowei Zhuang, DPhil ("Inventor") to the Howard Hughes Medical Institute, a Delaware corporation ("HHMI").

Recitals

WHEREAS, Inventor is an employee of HHMI and, as a condition of her employment, has signed the Agreement appended to HHMI's Policy on Intellectual Property (the "Intellectual Property Agreement");

WHEREAS, pursuant to the Intellectual Property Agreement, Inventor has agreed (a) to assign to HHMI all rights she may acquire in any invention, discovery, improvement, or other intellectual property, whether or not patentable or copyrightable, developed directly or indirectly as a result of a program of research financed by HHMI funds or funds under the control of HHMI (each a "Subject Property") and (b) to execute any agreements that may be desired by HHMI in connection with such assignment;

WHEREAS, Inventor has, alone or with others invented "Sub-Diffraction Limit Image Resolution in Three Dimensions" which may be the subject of a patent application (the "Invention"), and the Invention is a Subject Property; and

WHEREAS, Inventor seeks to make a formal assignment of her interest in the Invention to HHMI, and HHMI desires the execution of a formal assignment of all of Inventor's right, title, and interest in the Invention.

NOW, THEREFORE, in consideration of the promises contained in and the acts performed and to be performed pursuant to the Intellectual Property Agreement and of other good and valuable consideration, the receipt of which is hereby acknowledged by Inventor, Inventor agrees as follows:

1. <u>Assignment</u>. Inventor hereby assigns to HHMI her entire right, title, and interest in the Invention; any United State patent applications and all corresponding foreign patent applications which are directed to the Invention (including, without limitation, the patent application entitled "Sub-Diffraction Limit Image Resolution in Three Dimensions" filed in the United States Patent and Trademark Office on December 21, 2007 with Serial Number 61/008,661), and any and all patents issued therefrom; all United States or foreign division and continuation applications based on any of the foregoing, and any and all patents issued therefrom; and all claims which are directed to the Invention and which may be contained in continuation-in-part applications or in patents which issue therefrom.

2. <u>Cooperation</u>. Inventor agrees to execute upon request such further assignments, documents, and other instruments as may be necessary or desirable to assign Inventor's entire right, title and interest in the Invention to HHMI and to assist HHMI (or others at the direction of HHMI) in applying for, obtaining, and enforcing patents, copyrights, or other rights in the United States and in any foreign country with respect to the Invention.

PATENT REEL: 048368 FRAME: 0278

3. Parties. The terms and provisions of the Assignment shall inure to the benefit of HHMI and its successors and assigns and shall be binding on the Inventor and her heirs, personal representatives and assigns.

4 Warranty. Inventor warrants and represents that she has not entered into any assignment, contract, or understanding in conflict herewith, and that there is no other person or entity whose consent is required in order for the Inventor to make the assignment contained herein.

Inventor: <u>Xiaówei Zhuang</u>, DPhil

Commonwealth of Massachusetts

County of Meddles and

Then personally appeared before me the above-named Xiaowei Zhuang, DPhil and acknowledged that she executed the foregoing instrument in her authorized capacity this 17 day of NOVEMBER, 2008

(SEAL)

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Notary Public: hn L. RANDAZZO

print name)

My Commission Expires: APRIL 30, 2010

Harvard 3114 HHMI 04049

JOHN L. RANDAZZO NOTARY PUBLIC My Commission Express April 30, 2010

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RECORDED: 02/19/2019