PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT5982885

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
SANGEETA N. BHATIA	02/06/2020
LIANGLIANG HAO	02/24/2020
HOWARD HUGHES MEDICAL INSTITUTE	02/06/2020

RECEIVING PARTY DATA

Name:	MASSACHUSETTS INSTITUTE OF TECHNOLOGY
Street Address:	77 MASSACHUSETTS AVENUE
City:	CAMBRIDGE
State/Country:	MASSACHUSETTS
Postal Code:	02139

PROPERTY NUMBERS Total: 2

Property Type	Number
Application Number:	16745748
PCT Number:	US2014007

CORRESPONDENCE DATA

Fax Number: (617)646-8646

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.

Phone: 617-646-8000

Email: patents_HelenL@wolfgreenfield.com, flora.luo@wolfgreenfield.com,

mitadministrators@wolfgreenfield.com

Correspondent Name: FLORA LUO

Address Line 1: WOLF, GREENFIELD & SACKS, P.C.

Address Line 2: 600 ATLANTIC AVENUE

Address Line 4: BOSTON, MASSACHUSETTS 02210

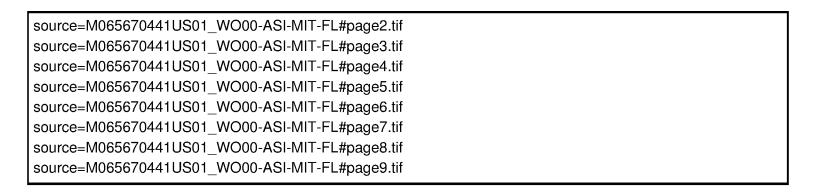
ATTORNEY DOCKET NUMBER:	M0656.70441US01/WO00	
NAME OF SUBMITTER:	FLORA LUO	
SIGNATURE:	/Flora Luo/	
DATE SIGNED:	02/26/2020	

Total Attachments: 9

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PATENT REEL: 051935 FRAME: 0354

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PATENT REEL: 051935 FRAME: 0355

ASSIGNMENT

For good and valuable consideration, the receipt of which is hereby acknowledged, I, the undersigned Assignor, hereby:

- Sell, assign and transfer to Massachusetts Institute of Technology, a Massachusetts Non-profit Corporation having a place of business at 77 Massachusetts Avenue, Cambridge. Massachusetts 02139, its successors, assigns and legal representatives, all hereinafter referred to as the Assignee, my entire right, title and interest for the United States and all foreign countries, in and to any and all inventions and designs which are disclosed in the patent application for United States Letters Patent filed in the United States Patent and Trademark Office on January 17, 2020 under No. 16/745,748, bearing Attorney Docket No. M0656.70441US01, and entitled SENSORS FOR DETECTING AND IMAGING OF CANCER METASTASIS, and in the International Patent Application filed on January 17, 2020 under No. PCT/US2020/014007, bearing Attorney Docket No. M0656.70441W000, and entitled SENSORS FOR DETECTING AND IMAGING OF CANCER METASTASIS, and in and to the application and all corresponding provisional, non-provisional, divisional, continuing, substitute. renewal, reissue and all other applications for Letters Patent, utility models, industrial designs or similar intellectual property rights which have been or shall be filed in the United States. internationally, and in any foreign country, including but not limited to China, Japan and Korea, on any of the inventions and designs; and in and to all original and reissued patents which have been or shall be issued in the United States or any other jurisdiction on the inventions and designs, including the right to apply for patent rights in each foreign country and all rights to priority, including the right to claim priority for China, Japan and Korea; as well as the right to sue in its own name and recover damages for past infringement of any United States Letters Patent and foreign patent, including a reasonable royalty relating to provisional rights under 35 U.S.C. § 154(d) that have attached to any published United States patent application, on the inventions and designs:
- 2. Agree that the Assignee may apply for and receive Letters Patent and utility model and industrial design registrations for the inventions and designs in its own name; and when requested, without charge to but at the expense of the Assignee, agree to carry out in good faith the intent and purpose of this Assignment, by executing all non-provisional, divisional, continuing, substitute, renewal, reissue, and all other patent, utility model and industrial design applications on any and all the inventions and designs, by executing all rightful oaths, assignments, powers of attorney and other papers, by communicating to the Assignee all facts known to me relating to the inventions and designs and the history thereof, and generally by doing everything reasonably possible which the Assignee shall consider desirable for aiding in securing and maintaining proper protection for the inventions and designs and for vesting title to the inventions and designs and all applications for patents and all patents on the inventions and designs, in the Assignee;
- 3. Request the Director of the United States Patent and Trademark Office and foreign patent authorities to issue the Letters Patent or other intellectual property rights, including foreign patents, to the Assignee;

Attorney Docket No. M0656.70441US01/WQ00

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- 4. Authorize and request Wolf, Greenfield & Sacks, P.C. to supply any missing application identification information or correct any errors in the application identification information provided above, whether discovered prior to or after recordation;
- 5. Covenant with the Assignee that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by me and that full right to convey the same as herein expressed is possessed by me; and
- 6. Appoint Assignee, through its designee, my attorney-in-fact to execute, in my name and on my behalf, any and all documents required to effectuate this Assignment, specifically including, but not limited to, those documents specified above and any necessary corrective assignments.

This instrument is executed under seal and signed under the pains and penalties of perjury under the laws of the United States of America.

Attorney Docket No. M0656.70441US01/WO00

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07/06/2020 Date	inventor:	Sangeeta N./Bhatia For Myself and as an Agent of Howard Hughes
	Address:	Medical Institute 32 Ingleside Road
		Lexington, MA 02420
	Citizenship:	
Witness: Feb. 6, 2020 Date	Signature Name: Address:	Sue Kangiser
Witness: <u>Feb. 6, 2020</u> Date	Signatur	Regioner_
	Nama	HAN-PE, OH WA

Attorney Docket No. M0656.70441US01/WO00

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Address: 19 BARTLETT STREET

WATERTOWN, WA 02472

Date	Inventor:	Liangliang Hao
	Address:	90 Sylvester Avenue #90
		Winchester, Massachusetts 01890
	Citizenship:	China
Witness:		
Date	Signature	9
	Name:	
	Address:	
Witness:		
Date	Signature	
	Name:	
	Address:	

Attorney Docket No. M0656.70441US01/WO00

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ASSIGNMENT

For good and valuable consideration, the receipt of which is hereby acknowledged, I, the undersigned Assignor, hereby:

- Sell. assign and transfer to Massachusetts Institute of Technology, a Massachusetts Non-profit Corporation having a place of business at 77 Massachusetts Avenue, Cambridge, Massachusetts 02139, its successors, assigns and legal representatives, all hereinafter referred to as the Assignee, my entire right, title and interest for the United States and all foreign countries, in and to any and all inventions and designs which are disclosed in the patent application for United States Letters Patent filed in the United States Patent and Trademark Office on January 17, 2020 under No. 16/745,748, bearing Attorney Docket No. M0656.70441US01, and entitled SENSORS FOR DETECTING AND IMAGING OF CANCER METASTASIS, and in the International Patent Application filed on January 17, 2020 under No. PCT/US2020/014007, bearing Attorney Docket No. M0656.70441WO00, and entitled SENSORS FOR DETECTING AND IMAGING OF CANCER METASTASIS, and in and to the application and all corresponding provisional, non-provisional, divisional, continuing, substitute, renewal, reissue and all other applications for Letters Patent, utility models, industrial designs or similar intellectual property rights which have been or shall be filed in the United States, internationally, and in any foreign country, including but not limited to China, Japan and Korea, on any of the inventions and designs; and in and to all original and reissued patents which have been or shall be issued in the United States or any other jurisdiction on the inventions and designs, including the right to apply for patent rights in each foreign country and all rights to priority, including the right to claim priority for China, Japan and Korea; as well as the right to sue in its own name and recover damages for past infringement of any United States Letters Patent and foreign patent, including a reasonable royalty relating to provisional rights under 35 U.S.C. § 154(d) that have attached to any published United States patent application, on the inventions and designs;
- 2. Agree that the Assignee may apply for and receive Letters Patent and utility model and industrial design registrations for the inventions and designs in its own name; and when requested, without charge to but at the expense of the Assignee, agree to carry out in good faith the intent and purpose of this Assignment, by executing all non-provisional, divisional, continuing, substitute, renewal, reissue, and all other patent, utility model and industrial design applications on any and all the inventions and designs, by executing all rightful oaths, assignments, powers of attorney and other papers, by communicating to the Assignee all facts known to me relating to the inventions and designs and the history thereof, and generally by doing everything reasonably possible which the Assignee shall consider desirable for aiding in securing and maintaining proper protection for the inventions and designs and for vesting title to the inventions and designs and all applications for patents and all patents on the inventions and designs, in the Assignee;
- 3. Request the Director of the United States Patent and Trademark Office and foreign patent authorities to issue the Letters Patent or other intellectual property rights, including foreign patents, to the Assignee;

Attorney	Dookst	Ma.	MACEC	70444	11004	$\Delta M \cap \Delta \Delta \Delta$

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- 4. Authorize and request Wolf, Greenfield & Sacks, P.C. to supply any missing application identification information or correct any errors in the application identification information provided above, whether discovered prior to or after recordation;
- 5. Covenant with the Assignee that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by me and that full right to convey the same as herein expressed is possessed by me; and
- 6. Appoint Assignee, through its designee, my attorney-in-fact to execute, in my name and on my behalf, any and all documents required to effectuate this Assignment, specifically including, but not limited to, those documents specified above and any necessary corrective assignments.

This instrument is executed under seal and signed under the pains and penalties of perjury under the laws of the United States of America.

Attorney Docket No. M0656.70441US01/WO00

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Date	Inventor:	Sangeeta N. Bhatia
		For Myself and as an Agent of Howard Hughes Medical Institute
	Address:	32 Ingleside Road
		Lexington, MA 02420
	Citizenship:	
Witness:		
Date	Signature	
•	Name:	
	iname.	
	Address:	
	•	
Witness:		
Date	Signature	9
	Name:	
	Address:	
		-
Attorney Docket No. M0656.70441US01	/WO00	

PATENT REEL: 051935 FRAME: 0362

Feb 24, 2020	Lighton
Date	Inventor: Liangliang Hao
	Address: 90 Sylvester Avenue #90
	Winchester, Massachusetts 01890
	Citizenship: China
•	
Witness: Feb 24, 2020	Ang himmen
Date	Signature
	Name: LIAN-FE CH NG
	Address: 19 BARTUSTT ST.
	WATERTOWN, MA 02472
Witness: Feb 24, 7020	ARollin
Date	Signature
	Name: AHMET REICDEMIR

Address:

Attorney Docket No. M0656.70441US01/WO00

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APPOINTMENT OF INVESTIGATOR AS AGENT

Appointment by the Howard Hughes Medical Institute ("HHMI") of Sangeeta Bhatia, MD, PhD, an employee of HHMI, as its agent for the purpose of assigning certain rights to Massachusetts Institute of Technology ("Institution").

WHEREAS, HHMI and Institution collaborate in the active conduct of medical research pursuant to an Agreement between them dated as of March 1, 2015 (the "Agreement");

WHEREAS, pursuant to the Agreement, HHMI has agreed to assign to Institution HHMI's rights in Subject Property (as defined in the Agreement) in accordance with and subject to the conditions of the Agreement;

WHEREAS, research conducted pursuant to the Agreement by Sangeeta Bhatia, MD, PhD while employed by HHMI at Institution has resulted in the invention of a certain Subject Property entitled "Nanosensors for Detecting and Imaging of Cancer Metastasis," which may be the subject of a patent application, (the "Invention"), and the Invention is a Subject Property; and

WHEREAS, HHMI wishes Sangeeta Bhatia, MD, PhD 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 Sangeeta Bhatia, MD, PhD as its agent for the purpose of assigning the rights HHMI has or may acquire in the Invention to Institution in accordance with and subject to the conditions of the Agreement.

Executed: May 11, 2018

HOWARD HUGHES MEDICAL INSTITUTE

Dand Gan

By:

David E. Clapham, MD, PhD Vice President and Chief Scientific Officer

ATTESTED:

Heidi E. Henning

Audi Henry

Vice President and General Counsel

MIT 20490H HHMI 06892

> PATENT REEL: 051935 FRAME: 0364

RECORDED: 02/26/2020