504748146 01/26/2018

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4794874

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
GUANGPING GAO	03/31/2017
PHILLIP D. ZAMORE	04/03/2017
SHAOYONG LI	04/01/2017
HOWARD HUGHES MEDICAL INSTITUTE	04/03/2017

RECEIVING PARTY DATA

Name:	UNIVERSITY OF MASSACHUSETTS
Street Address:	225 FRANKLIN STREET
City:	BOSTON
State/Country:	MASSACHUSETTS
Postal Code:	02110

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15306543

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 KEVINM@WOLFGREENFIELD.COM

Correspondent Name: KEVIN MACDONALD

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

Address Line 2: **600 ATLANTIC AVENUE**

Address Line 4: BOSTON, MASSACHUSETTS 02210

ATTORNEY DOCKET NUMBER:	U0120.70063US02
NAME OF SUBMITTER:	KEVIN MACDONALD
SIGNATURE:	/Kevin MacDonald/
DATE SIGNED:	01/26/2018

Total Attachments: 5

source=U012070063US02-CASI-UMASS-KZM#page1.tif source=U012070063US02-CASI-UMASS-KZM#page2.tif

PATENT REEL: 044734 FRAME: 0838 504748146

source=U012070063US02-CASI-UMASS-KZM#page3.tif source=U012070063US02-CASI-UMASS-KZM#page4.tif source=U012070063US02-CASI-UMASS-KZM#page5.tif

> PATENT REEL: 044734 FRAME: 0839

ASSIGNMENT

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

- Sell, assign and transfer to University of Massachusetts, having a place of business at 225 Franklin Street; Boston, Massachusetts 02110, 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 application for United States Letters Patent filed in the United States Patent and Trademark Office on October 25, 2016 under No. 15/306,543, bearing Attorney Docket No. U0120.70063US02, and entitled RECOMBINANT AAV VECTORS USEFUL FOR REDUCING IMMUNITY AGAINST TRANSGENE PRODUCTS, 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 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, 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;
- 2. Agree that the Assignee may apply for and receive Letters Patent and utility model and industrial design registrations for the inventions in its own name; and when requested, without charge to but at the expense of the Assignee, I 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, 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 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 for vesting title to the inventions and all applications for patents and all patents on the inventions, in the Assignee;
- 3. Request the Director of the United States Patent and Trademark Office to issue the Letters Patent to the Assignee;
- 4. Authorize and request Wolf, Greenfield & Sacks, P.C. to supply any missing patent/application identification information or correct any errors in the patent/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. U0120/70063US02

Page 1 of 4

Date inventor.	anarighting dan
Address:	4 Edward Dunn Way
	Westborough, Massachusetts 01581
Citizenship:	US
STATE/COMMONWEALTH OF MASSACHUSE	. 775
COUNTY OF WORCESTER:	
23 P	the Comment of the Co
On this 31 day of MARCH, 20	proved to me through satisfactory evidence of
***************************************	····
identification, which were	
to be the person who signed the preceding or attached	
to me that the contents of the document are truthful and	accurate to the best of (his) (her) knowledge
and belief and acknowledged to me that (he) (she) signed	ed it voluntarily for its stated purpose.
grand the state of	
SEAL James (A //)	
Notary Public	
My commission expires: 5/30/19	
The second secon	

3/31/2017

USUFF Inventor:	Phillip D. Zamoro For himself and as an agent of Howard Hughes Medical Institute
Address:	500 Green Street
	Northborough, MA 01605
Citizenship:	US
STATE/COMMONWEALTH OF MASACHUS COUNTY OF WARRENT ON THE COUNTY OF THE	, before me, the undersigned notary public, , proved to me through satisfactory evidence of , document in my presence and swore or affirmed
and belief and acknowledged to me that (he) (she) signe	ed it voluntarily for its stated purpose.
SEAL Liptary Public My commission expires: My commission expires: My commission expires:	TIFFANIE J. GARDNEF Notary Public Communication of Massachuset My Commission Expires March 30, 2023

Attorney Docket No. U0120.70063US02

Page 3 of 4

5313713.1

4/1/2017		gerry;
Date	Inventor:	Shaoyong Li
	Address:	15 Autumn Ridge Dr.
		Honkinton Massachusatte 01748

Citizenship: People's Republic of China

STATE/COMMONWEALTH OF MASSACHWSSTTS COUNTY OF MASSACHWSSTTS
On this \(\frac{1}{2} \) day of \(\frac{1}{2} \) \(\frac{1}{2} \) before me, the undersigned notary public, personally appeared \(\frac{1}{2} \) Shaoyong Li \(\frac{1}{2} \), proved to me through satisfactory evidence of identification, which were \(\frac{1}{2} \)
to be the person who signed the preceding or affached document in my presence and swore or affirmed
to me that the contents of the document are truthful and accurate to the best of (his) (her) knowledge
and belief and acknowledged to me that (he) (she) signed it voluntarily for its stated purpose.
GARY A. CEDRONE \

My commission expires:

Notary Public

November 25, 2000

APPOINTMENT OF INVESTIGATOR AS AGENT

Appointment by the Howard Hughes Medical Institute ("HHMI") of Phillip David Zamore, PhD, an employee of HHMI, as its agent for the purpose of assigning certain rights to University of Massachusetts ("Institution").

WHEREAS, HHMI and Institution collaborate in the active conduct of medical research pursuant to an Agreement between them dated as of September 1, 2013 (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 an subject to the conditions of the Agreement;

WHEREAS, research conducted pursuant to the Agreement by Phillip David Zamore, PhD while employed by HHMI at Institution has resulted in the invention of a certain Subject Property entitled "miRNA-Mediated Transcriptional Detargeting to Reduce Transgene Immunity," which may be the subject of a patent application (the "Invention"), and the Invention is a Subject Property; and

WHEREAS, HHMI wishes Phillip David Zamore, 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 Phillip David Zamore, 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: December 3, 2013

HOWARD HUGHES MEDICAL INSTITUTE

By:

Erin K. O'Shea, PhD

Vice President and Chief Scientific Officer

ATTESTED:

300

Heidi Henning

Vice President and General Counsel

led Henry

UMMC 14-22 HHMI 05588

> PATENT REEL: 044734 FRAME: 0844

RECORDED: 01/26/2018