

## PATENT ASSIGNMENT COVER SHEET

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<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
HOWARD HUGHES MEDICAL INSTITUTE	04/25/2016
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	PRESIDENT AND FELLOWS OF HARVARD COLLEGE
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<b>Postal Code:</b>	02138
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	15567312
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<b>ATTORNEY DOCKET NUMBER:</b>	5788
<b>NAME OF SUBMITTER:</b>	KAREN SINCLAIR
<b>SIGNATURE:</b>	/K.S./
<b>DATE SIGNED:</b>	04/09/2019
<b>Total Attachments: 2</b>	
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## ASSIGNMENT

Assignor:

HOWARD HUGHES MEDICAL INSTITUTE  
4000 Jones Bridge Road  
Chevy Chase, MD 20815

Assignee:

PRESIDENT AND FELLOWS OF HARVARD COLLEGE  
17 Quincy Street  
Cambridge, MA 02138

WHEREAS, I, David R. Liu, of Lexington, Massachusetts as a duly appointed agent of Howard Hughes Medical Institute (HHMI), have developed certain inventions described in International Patent Application No. PCT/US16/27795 filed 04/15/16, entitled: "Vector-Based Mutagenesis System" which claims priority to U.S Patent Application No. 62/149,378 filed 04/17/15 and U.S. Patent Application No. 62/272,035 filed 12/28/15 ; having full right to convey HHMI's entire right, title, and interest, both legal and equitable, in and to said inventions, free from all prior assignments, agreements, licenses, mortgages, security interests, or other encumbrances whatsoever; and

WHEREAS, PRESIDENT AND FELLOWS OF HARVARD COLLEGE ("Assignee"), a non-profit corporation of the state of Massachusetts, having its principal place of business at 17 Quincy Street, Cambridge, Massachusetts 02138, is desirous of acquiring the entire right, title, and interest in and to said invention or inventions and any and all patents to be obtained therefore;

NOW, THEREFORE, in consideration of good and valuable consideration, the receipt and sufficiency of which are hereby acknowledge by the undersigned does hereby sell, assign, transfer, and set over unto said Assignee, its successors and assigns, HHMI's entire right, title, and interest throughout the world in and to said invention or inventions, as described in the aforesaid application, in any form or embodiment thereof, and in and to the aforesaid application; and in and to any application filed in any foreign country based thereon, including the right to file said foreign applications and claim priority under the provisions of any international convention or treaty; also the entire right, title, and interest throughout the world in and to any and all patents or reissues or extensions

thereof to be obtained in this or any foreign country upon said invention or inventions and any divisional, continuation, or substitute applications which may be filed upon said invention or inventions in this or any foreign country; and the undersigned hereby authorizes and requests the issuing authority to issue any and all patents on said application or applications to said Assignee or its successors and assigns.

For purposes of complying with foreign requirements, the above paragraph is intended to expressly grant all the recited rights and grants in China, Korea, and Japan.

The undersigned further agrees, without any further payment or compensation by said Assignee or its successors and assigns, to communicate to said Assignee, its representatives or agents or its successors and assigns, any facts relating to said invention or inventions including evidence of interference purposes or for other legal proceedings whenever requested; testify in any interference or other legal proceedings, whenever requested; executed and deliver, on request, all lawful papers required to make any of the foregoing provisions effective; and generally do everything possible to aid said Assignee, its successors or assigns and nominees to secure, obtain and enforce proper patent protection for said invention or inventions in this or any foreign country.

Assignor authorizes Assignee or Assignee's representative to supply and/or to correct any errors in the patent/application information provided above including but not limited to said application serial number(s) and filing date(s), prior to or after recordation.

IN TESTIMONY WHEREOF, the undersigned had hereunto set his/her hand and seal on the date after his/her signature.




**David R. Liu**

As duly appointed agent of the Howard Hughes Medical Institute

4-25-16

(Date)



Witness's Signature

4-25-16

(Date)

ALEX MARKOVIC

Witness's Printed Name