

## 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>
HIROSHI NISHIMASU	12/11/2014
<b>RECEIVING PARTY DATA</b>	
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<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
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<b>SIGNATURE:</b>	/Neil H. Benowitz/
<b>DATE SIGNED:</b>	12/22/2022
<b>Total Attachments: 2</b>	
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source=Assignment - Nishimasu to Tokyo#page2.tif	

ASSIGNMENT

I, Hiroshi Nishimasu, residing at: 2-31-3 Sendagi, Bunkyo-ku, Tokyo Japan 113-0032,  
being the inventor(s) of certain improvements in the international application entitled:  
**SYSTEMS, METHODS AND COMPOSITIONS FOR SEQUENCE MANIPULATION  
WITH OPTIMIZED FUNCTIONAL CRISPR-CAS SYSTEMS** for good and valuable  
consideration, the receipt and sufficiency of which is hereby acknowledged, hereby assign unto  
**UNIVERSITY OF TOKYO**, having a place of business at 3-1, Hongo 7-chome Bunkyo-ku,  
Tokyo, 113-8654, Japan, its successors and assigns (1) the entire right, title and interest in all  
countries throughout the world in and to any and all of my inventions and discoveries in my  
United States Provisional Application Nos. 61/915,251, filed December 12, 2013, 61/930,214  
filed January 22, 2014 and 61/939,242 filed February 12, 2014 and a PCT International  
Application filed under the Patent Cooperation Treaty in the PCT United States Receiving Office  
(ROIUS) on 12/12/2014, identified as International Application No. PCT/US14/70175, and  
designating all PCT member countries/states, as well as in any renewals, revivals, reissues,  
reexaminations, extensions, continuations and divisions thereof, and any substitute applications  
therefore; (2) the full and complete right to file patent applications in the name of  
**UNIVERSITY OF TOKYO**, or their designee's election, on the aforesaid inventions,  
discoveries and applications in all countries of the world; (3) the entire right title and interest in  
and to any Letters Patent which may issue on the aforesaid inventions, discoveries and  
applications in any country of the world and any renewals, revivals, reissues, reexaminations and  
extensions thereof, and any patents of confirmation, registration and importation of the same;  
and (4) the entire right, title and interest in and to all Convention and Treaty Rights of all kinds  
thereon, including without limitation all rights of priority in any country of the world, in and to  
the following application(s):

United States Provisional Application No. 61/915,251 filed December 12, 2013;

United States Provisional Application No. 61/930,214 filed January 22, 2014; and

United States Provisional Application No. 61/939,242 filed February 12, 2014 and all  
rights of priority in any country of the world deriving from the above-identified International  
Application.

I hereby authorize and request the competent authorities to grant and to issue any and all  
such Letters Patent in any country throughout the world to **UNIVERSITY OF TOKYO** as the

assignee of the entire right, title and interest therein, as fully and entirely as the same would have been held and enjoyed by me had this assignment, sale and transfer not been made.

I agree, at any time, upon the request of **UNIVERSITY OF TOKYO** to execute and to deliver to **UNIVERSITY OF TOKYO** any additional applications for patents for said inventions and discoveries, or any part or parts thereof, and any applications for patents of confirmation, registration and importation based on any Letters Patent issuing on said inventions, discoveries or applications, and divisions, continuations, renewals, revivals, reissues, reexaminations and extensions thereof.

I further agree, at any time, upon request of **UNIVERSITY OF TOKYO** to execute and to deliver to **UNIVERSITY OF TOKYO**, such additional documents, if any, as are necessary or desirable to secure patent protection on said inventions, discoveries and applications throughout all countries of the world, and otherwise to do what is necessary to give full effect to and to perfect any and all rights of **UNIVERSITY OF TOKYO**, under this Assignment, including the execution, delivery and procurement of any and all further documents evidencing this assignment, transfer and sale as may be necessary or desirable.

In testimony of which I have hereupon affixed my signature it is my intention that this Assignment instrument be effective, and all rights transferred herein shall be considered to have vested in **UNIVERSITY OF TOKYO** as from the December 12, 2013, the filing date of the first filed United States Provisional Application No. 61/915,251, from which priority is hereby claimed.

2014.12.11

Date

Witnesses 1

Momoko Ihara

Signature

Momoko Ihara

Print name here

Hiroshi Nishimasu

Hiroshi Nishimasu

Witnesses 2

Tomoko Fujita

Signature

Tomoko Fujita

Print name here