505270548 01/09/2019 PATENT ASSIGNMENT COVER SHEET

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		NEW ASSIGNMENT		
NATURE OF CONVEYAN	ICE:	E: ASSIGNMENT		
CONVEYING PARTY DA	ATA			
		Name	Execution Date	
JENNIFER A. DOUDNA			12/05/2018	
JANICE S. CHEN			11/15/2018	
LUCAS BENJAMIN HAR	RINGTO	N	01/09/2019	
ENBO MA			10/31/2018	
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PROPERTY NUMBERS	Total: 1			
Property Type		Number		
		15897089		
Application Number:				
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CORRESPONDENCE D	ΑΤΑ			
CORRESPONDENCE D Fax Number: <i>Correspondence will be</i>	e sent to	(650)327-3231 • the e-mail address first; if that is		
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ASSIGNMENT

For good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNOR(S),

- 1. Jennifer A. Doudna 2. Janice S. Chen
- 3. Lucas Benjamin Harrington 4. Enbo Ma

hereby sells, assigns and transfers to ASSIGNEE, **The Regents of the University of California**, a California Corporation, having its principal place of business at 1111 Franklin Street, 12th Floor, **Oakland, California 94607**, and the successors, assigns and legal representatives of the ASSIGNEE all of its right, title and interest for the United States and its territorial possessions and in all foreign countries in and to, any and all improvements which are disclosed in the invention entitled:

"TYPE V CRISPR/CAS EFFECTOR PROTEINS FOR CLEAVING SSDNAS AND DETECTING TARGET DNAS"

and which is found in

(a)	Х	U.S. Application Serial No.	15/897,089	filed on	February 14, 2018
(b)		PCT Patent Application No.		filed on	

and any legal equivalent thereof in a foreign country, including the right to claim priority and, in and to, all Letters Patent to be obtained for said invention by the above application or any continuation, division, continuation-in-part, extension, conversion to 35 USC 111(a) or substitute thereof, and any reissue, reexamination or extension of said Letters Patent and all rights under all International Conventions for the Protection of Industrial Property;

<u>ASSIGNOR(S)</u> hereby agrees that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment;

<u>ASSIGNOR(S)</u> further agrees that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said invention and said Letters Patent and legal equivalents as may be known and accessible to ASSIGNOR and will testify as to the same in any interference, post grant review, inter partes review, litigation, or proceeding relating thereto and will promptly execute and deliver to ASSIGNEE or its legal representative any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue or enforce said application, said invention and said Letters Patent and said equivalents thereof which may be necessary or desirable to carry out the purposes thereof. An attorney of record is authorized and requested by the execution of this assignment to insert into this assignment the filing date and serial number of said application when officially known.

AND the <u>ASSIGNOR(S)</u> requests the Commissioner of Patents and Trademarks to issue said Letters Patent of the United States and any reissue or extension thereof to the ASSIGNEE.

Executed this	Signature of Inventor(s)
<u></u> day of <u></u> , 20 <u>_18</u>	Jennifer a. Donde Jennifer A. Doudna
day of, 20	Janice S. Chen
day of, 20	Lucas Benjamin Harrington
day of, 20	Enbo Ma

Hereby accepted on behalf of the assignee:

/Patent Agent/	Patent Agent	January 9, 2019
Name	Title	Date

Executed this

Signature of Inventor(s)

Jennifer A. Doudna

_____ day of _____, 20____

15 day of November , 20 18

Janice S. Chen

_____ day of _____, 20

Lucas Benjamin Harrington

31 day of October, 2018

λ.

Enbo Ma

Hereby accepted on behalf of the assignee:

/Patent Agent/Patent AgentJanuary 9, 2019NameTitleDate

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Executed this		Signature of Inventor(s)
day of	, 20	Laurifor A. Doudra
day of	, 20	Jennifer A. Doudna
_{oth} day of	Janurary , 20_19	Janice S. Chen
	, 20	Lucas Benjamin Harrington
uuy or	, 20	Enbo Ma

Hereby accepted on behalf of the assignee:

/Patent Agent/	Patent Agent	January 9, 2019
Name	Title	Date