PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
RUSTEM F. ISMAGILOV	07/21/2017
BING SUN	07/14/2017
JESUS RODRIGUEZ MANZANO	07/18/2017
EUGENIA KHOROSHEVA	07/22/2017
MATTHEW S. CURTIS	07/18/2017

RECEIVING PARTY DATA

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PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16224617

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER:	P2398-USC
NAME OF SUBMITTER:	BRIAN J. CASH
SIGNATURE:	/Brian J. Cash, Reg. No. 60,546/
DATE SIGNED:	06/01/2021

Total Attachments: 6

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PATENT REEL: 056401 FRAME: 0087 source=P2398-USC-Assignment-signed#page2.tif source=P2398-USC-Assignment-signed#page3.tif source=P2398-USC-Assignment-signed#page4.tif source=P2398-USC-Assignment-signed#page5.tif source=P2398-USC-Assignment-signed#page6.tif

> PATENT REEL: 056401 FRAME: 0088

ASSIGNMENT

For good and valuable consideration, the receipt of which is hereby acknowledged, the person(s) named below (referred to as "INVENTOR" whether singular or plural) has sold, assigned, and transferred and does hereby sell, assign, and transfer to California Institute of Technology, a California Corporation, having a place of business at 1200 E. California Boulevard, M/C 6-32, Pasadena, CA 91125 ("ASSIGNEE"), for itself and its successors, transferees, and assignees, the following:

1. The entire worldwide right, title, and interest in all inventions and improvements ("SUBJECT MATTER") that are disclosed in the following provisional or non-provisional application filed under 35 U.S.C. § 111, design application filed under 35 U.S.C. § 171, international application filed according to the Patent Cooperation Treaty (PCT), or U.S. national phase application filed under 35 U.S.C. § 371 ("APPLICATION"):

U.S. Application No. **15/030,202**, entitled "ENHANCED NUCLEIC ACID IDENTIFICATION AND DETECTION," which is a National Phase Entry of International Application No. PCT/US2014/060977, filed on October 16, 2014, which claims priority from U.S. Provisional Application Nos. 62/063,293, filed on October 13, 2014; 61/993,183, filed on May 14, 2014; 61/968,191, filed on March 20, 2014; 61/943,784, filed on February 24, 2014; and 61/893,051, filed on October 18, 2013.

2. The entire worldwide right, title, and interest in and to:

(a) the APPLICATION; (b) all applications claiming priority from the APPLICATION; (c) all provisional, utility, divisional, continuation, substitute, renewal, reissue, and other applications related thereto that have been or may be filed in the United States or elsewhere in the world; (d) all patents (including reissues and re-examinations) that may be granted on the applications set forth in (a), (b), and (c) above; and (e) all right of priority in the APPLICATION and in any underlying provisional or foreign application, together with all rights to recover damages for infringement of provisional rights.

INVENTOR agrees that ASSIGNEE may apply for and receive patents for SUBJECT MATTER in ASSIGNEE's own name.

INVENTOR agrees to do the following, when requested, and without further consideration, in order to carry out the intent of this Assignment: (1) execute all oaths, assignments, powers of attorney, applications, and other papers necessary or desirable to fully secure to ASSIGNEE the rights, titles and interests herein conveyed; (2) communicate to ASSIGNEE all known facts relating to the SUBJECT MATTER; and (3) generally do all lawful acts that ASSIGNEE shall consider desirable for securing, maintaining, and enforcing worldwide patent protection relating to the SUBJECT MATTER and for vesting in ASSIGNEE the rights, titles, and interests herein conveyed. INVENTOR further agrees to provide any successor, assign, or legal representative of ASSIGNEE with the benefits and assistance provided to ASSIGNEE hereunder.

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32590/30823/SF/5571674.1

Title:	ENHANCED N UCLEICACID IDENTIFICATION AND DETECTION		
Filed:	April 18, 2016	Attorney Docket #:	32590-30823/US
Application #:	15/030,202	Client Ref #:	SLIP-16.US;
	CIT 6709-US		

INVENTOR grants the attorney of record the power to insert on this Assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office or other authority for recordation of this document.

Name and Signature	Date of Signature
Rusken Enland	July 21, 2017
Rustem F. ISMAGILOV	
Name and Signature	Date of Signature
Bing SUN	
Name and Signature	Date of Signature
Jesus RODRIGUEZ MANZANO	
Name and Signature	Date of Signature
Eugenia KHOROSHEVA	
Name and Signature	Date of Signature
Matthew S. CURTIS	

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Name and Signature	Date of Signature	
Rustem F. ISMAGILOV		
Name and Signature	Date of Signature	
Zus.	07/14/2017	
Bing SUN	***************************************	
Name and Signature	Date of Signature	
Jesus RODRIGUEZ MANZANO		
Name and Signature	Date of Signature	
Eugenia KHOROSHEVA		
Name and Signature	Date of Signature	
Matthew S. CURTIS		

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Name and Signature	Date of Signature	
Rustem F. ISMAGILOV		
Name and Signature	Date of Signature	
Bing SUN		
Name and Signature	Date of Signature	
Jesus RODRIGUEZ MANZANO	18/104/2017	
Name and Signature	Date of Signature	
Eugenia KHOROSHEVA	***************************************	
Name and Signature	Date of Signature	
Matthew S. CURTIS	-	

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Name and Signature	Date of Signature	
Jesus RODRIGUEZ MANZANO		
Name and Signature	Date of Signature	
Land Signature	07/32/20/9	
Eugenia KHOROSHEVA		
Name and Signature	Date of Signature	
Matthew S. CURTIS		

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			CJT 6709-US

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This Assignment may be executed in one or more counterparts, each of which shall be deemed an original and all of which may be taken together as one and the same Assignment.

Name and Signature	Date of Signature
Rustem F. ISMAGILOV	
Name and Signature	Date of Signature
Bing SUN	
Name and Signature	Date of Signature
Jesus RODRIGUEZ MANZANO	
Name and Signature	Date of Signature
Eogenia KHOROSHEVA	***************************************
Name and Signature	Date of Signature
Matthews CUPTIS	7//8//7

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