# PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	

#### **CONVEYING PARTY DATA**

Name	Execution Date
GEORGE M. CHURCH	04/07/2017
JEFFREY MACKLIS	04/11/2017
JEFFREY M. NIVALA	05/15/2017
SETH LAWLER SHIPMAN	04/05/2017

#### **RECEIVING PARTY DATA**

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Street Address:	17 Quincy Street	
City:	Cambridge	
State/Country:	Country: MASSACHUSETTS	
Postal Code:	02138	

#### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	15999616

#### **CORRESPONDENCE DATA**

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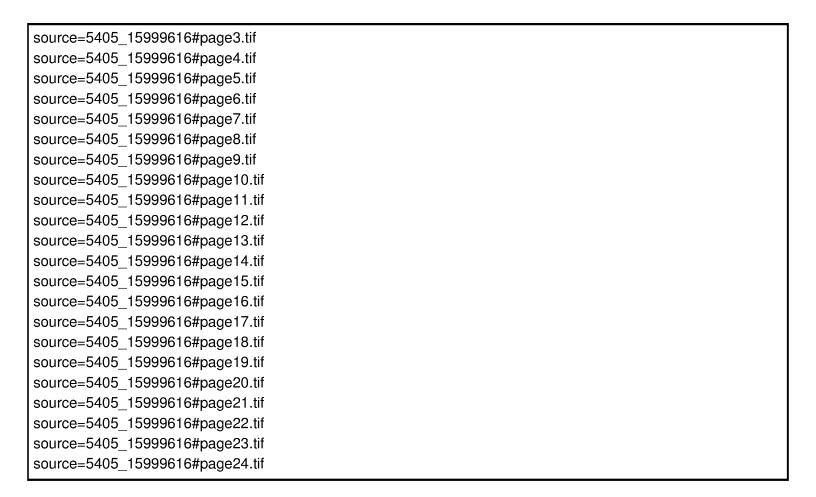
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ATTORNEY DOCKET NUMBER:	5405	
NAME OF SUBMITTER:	KAREN SINCLAIR	
SIGNATURE:	/K.S./	
DATE SIGNED:	02/05/2019	

**Total Attachments: 24** 

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PATENT 505314241 REEL: 048261 FRAME: 0768



PATENT REEL: 048261 FRAME: 0769

## ASSIGNMENT

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, we, the undersigned:

George M. Church, Jeffrey Macklis, Jeffrey M. Nivala and Seth Lawler Shipman

(each hereafter "Assignor") hereby assign, sell, and transfer to:

# President and Fellows of Harvard College 17 Quincy Street Cambridge, MA 02138

(hereafter "Assignee") its successors and assigns, Assignor's entire right, title, and interest throughout the world in and to any and all inventions described in any of the following applications:

Country	Application No.	Filing Date	Title
WO	PCT/US17/18071	02/16/2017	METHODS AND SYSTEMS OF
			MOLECULAR RECORDING BY CRISPR-
			CAS SYSTEM

and in and to the aforesaid application, in any form or embodiment thereof, and in and to any application on any of the inventions filed in this and any foreign country, based thereon, including the right to file said applications, apply for patent rights, 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 any of the 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 right to sue in its own name and recover damages for past infringement of any United States Letters Patent and foreign patent; and authorize and request 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.

Assignor hereby warrants that he/she has full right to convey his/her 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

Page 1 of 6

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 for interference purposes or for other legal proceedings, whenever requested; testify in any interference or other legal proceedings whenever requested; execute 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 representatives or agents, or its successors or assigns to secure, obtain, and enforce proper patent protection for said invention or inventions in this and 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 and filing date, prior to or after recordation.

Assignor appoints Assignee, through its designee, as its attorney-in-fact to execute, in Assignor's name and on Assignor's 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.

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Patent Assignment HU Case No.: HU 5405 Appin. No.: PCT/US17/18071

Page 4 of 6

Date Inventor: Jeffrey M. Nivala
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Patent Assignment

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			MOLECULAR RECORDING BY CRISPR-
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Page 1 of 6

PATENT REEL: 048261 FRAME: 0776

Assigner, 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 for interference purposes or for other legal proceedings, whenever requested; testify in any interference or other legal proceedings whenever requested; execute 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 representatives or agents, or its successors or assigns to secure, obtain, and enforce proper patent protection for said invention or inventions in this and any foreign country.

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11/17 Date

Inventor: Jeffrey Macklis

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Date Inventor: Jeffrey M. Nivala
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Patent Assignment HU Case No.: HU 5405 Date Inventor: Seth Lawler Shipman
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Assigner, 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 for interference purposes or for other legal proceedings, whenever requested; testify in any interference or other legal proceedings whenever requested; execute 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 representatives or agents, or its successors or assigns to secure, obtain, and enforce proper patent protection for said invention or inventions in this and any foreign country.

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Date Inventor: George M. Church
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Citizenship:

Witness:

Date Signature
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Page 6 of 6

PATENT REEL: 048261 FRAME: 0793

**RECORDED: 02/05/2019**