

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
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<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
GEORGE M. CHURCH	10/01/2014
KEVIN M. ESVELT	09/28/2014
PRASHANT MALI	09/24/2014
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	PRESIDENT AND FELLOWS OF HARVARD COLLEGE
<b>Street Address:</b>	17 QUINCY STREET
<b>City:</b>	CAMBRIDGE
<b>State/Country:</b>	MASSACHUSETTS
<b>Postal Code:</b>	02138
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	14903728
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i>	
<b>Email:</b>	caroline_borek@harvard.edu
<b>Correspondent Name:</b>	KAREN SINCLAIR
<b>Address Line 1:</b>	1350 MASSACHUSETTS AVENUE
<b>Address Line 2:</b>	HARVARD UNIVERSITY, OFFICE OF TECH. DEV.
<b>Address Line 4:</b>	CAMBRIDGE, MASSACHUSETTS 02138
<b>ATTORNEY DOCKET NUMBER:</b>	4981
<b>NAME OF SUBMITTER:</b>	KAREN SINCLAIR
<b>SIGNATURE:</b>	/kas/
<b>DATE SIGNED:</b>	02/06/2017
<b>Total Attachments: 9</b>	
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source=4981 PCT\_US14\_45700 Assignment#page9.tif

## ASSIGNMENT

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

**George M. Church, Kevin M. Esvelt, Prashant Mali**

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

**President and Fellows of Harvard College  
17 Quincy Street, Cambridge, Massachusetts 02138**

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

### **Orthogonal Cas9 Proteins for RNA-Guided Gene Regulation and Editing**

described in International Patent Application No. **PCT/US14/45700** filed 07/08/2014 which claims priority to Provisional Patent Application No. **61/844,844** filed 07/10/2013; and in, and to the aforesaid application(s), 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

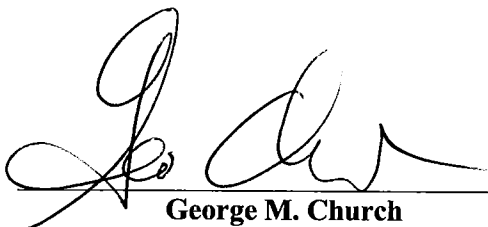

Assignor further agrees, without further payment or compensation by said Assignee or its successors and assigns, to communicate to said Assignee, its representatives or agents or its successors and assigns, any facts relating to said invention or inventions including evidence for interference purposes or for other legal proceedings, whenever requested; testify in any interference or other legal proceedings whenever

Patent Assignment  
HU Case 4981  
Appl. No(s): PCT/US14/45700

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 or omissions 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.

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.

<u>1-Oct-2014</u> Date	<u></u> George M. Church
<u>10/1/14</u> Date	<u></u> Witness
	<u>Meghan Raddner</u> Witness's Printed Name

<u>                    </u> Date	<u>                    </u> Kevin M. Esvelt
<u>                    </u> Date	<u>                    </u> Witness
	<u>                    </u> Witness's Printed Name

**Patent Assignment**  
**HU Case 4981**  
**Appl. No(s): PCT/US14/45700**

\_\_\_\_\_  
**Date**

\_\_\_\_\_  
**Prashant Mali**

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**Witness**

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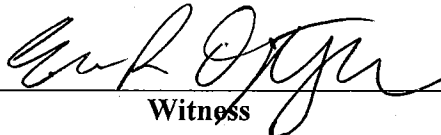
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_____ Date	_____ George M. Church
_____ Date	_____ Witness
	_____ Witness's Printed Name
9/28/2014 Date	 Kevin M. Esvelt
9/28/2014 Date	 Witness
	Evan R. Daugherty Witness's Printed Name

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**Date**

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**Prashant Mali**

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**Date**

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**Witness**

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**Witness's Printed Name**



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**George M. Church**

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**Witness**

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**Witness's Printed Name**

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**Date**

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**Kevin M. Esvelt**

\_\_\_\_\_  
**Date**

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**Witness**

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HU Case 4981  
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09/24/14

Date

24 Sept 14

Date

Prashant

Prashant Mali

Stone

Witness

Christie Jacobs Stone

Witness's Printed Name