# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT4026501

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
J. Keith Joung	07/26/2016
Benjamin Kleinstiver	07/26/2016

#### **RECEIVING PARTY DATA**

Name:	The General Hospital Corporation
Street Address:	55 Fruit Street
City:	Boston
State/Country:	MASSACHUSETTS
Postal Code:	02114

## **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	15060424

## CORRESPONDENCE DATA

Fax Number: (877)769-7945

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.

Phone: (617) 542-5070 Email: apsi@fr.com

**Correspondent Name:** JANICE K. DEYOUNG Address Line 1: FISH & RICHARDSON P.C.

Address Line 2: P.O.BOX 1022

Address Line 4: MINNEAPOLIS, MINNESOTA 55440-1022

ATTORNEY DOCKET NUMBER:	29539-0163001
NAME OF SUBMITTER:	CHRISTINE M. GRACE
SIGNATURE:	/Christine M. Grace/
DATE SIGNED:	08/26/2016

#### **Total Attachments: 4**

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> **PATENT** REEL: 039557 FRAME: 0744 503979845

Attorney Docket No.: 29539-0163001 / MGH 23289

#### ASSIGNMENT

For valuable consideration, the receipt of which we acknowledge, and intending to be bound legally, we, J. KEITH JOUNG, and BENJAMIN KLEINSTIVER, each individually assign to THE GENERAL HOSPITAL CORPORATION, a corporation formed under the laws of Massachusetts and having a principal place of business at 55 Fruit Street, Boston, MA 02114, and its successors, transferees, and assignees (collectively the "Assignee"), all of our individual and joint right, title, and interest throughout the world in the subject matter (the "Subject Matter") of a patent application that names us as inventors, is titled "ENGINEERED CRISPR-CAS9 NUCLEASES WITH ALTERED PAM SPECIFICITY," and was filed in the United States Patent and Trademark Office on March 3, 2016, as application 15/060,424 (the "Application").

This Assignment assigns (a) the Application and all other applications that may be made for, and all patents, utility models, design registrations, and other rights of exclusion and inventors' certificates for, any of the Subject Matter (collectively the "Applications and Granted Rights") in every country or region, (b) the right to claim priority based on and the benefit of the filing date of any of the Applications and Granted Rights under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other applicable treaties or conventions, and (c) the right to pursue, collect, and retain in the Assignee's name or otherwise, damages and any other remedies arising from any past, present, or future infringement of the Subject Matter, the Applications and Granted Rights, and any other rights assigned by this Assignment.

We authorize the Assignee to apply for and pursue protection for any or all of the Subject Matter, the Applications and Granted Rights, and any other rights assigned by this Assignment in all countries, regions, and territories of the world, in our names or in the Assignee's name.

We represent and warrant that we have the right and power to make this Assignment and that we have not made and will not make any other assignment that conflicts with this Assignment.

We will communicate to the Assignee (or at the request of the Assignee to other parties) all known facts in any form relating to the Subject Matter, will execute and provide all oaths and declarations, statements, testimony, assignments, powers of attorney, applications, and

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documents, and will perform all other lawful acts necessary or desirable to secure fully to the Assignee the rights, titles, and interests assigned by this Assignment.

J. Keith Joung DATE:

## The Commonwealth of Massachusetts

Juffrek	SS.	THE STATE OF THE S
2, 79	0	

On this 26th day of July , 206, before me, the undersigned notary public, personally appeared J. KETH JOUNG , proved to me through satisfactory evidence of identification, which were MA DRIVER'S LICENSE , to be the person(s) whose name(s) is/are signed on the preceding or attached document, and acknowledged to me that JKT signed it voluntarily for its stated purpose.

DOROTHY A. BINFORD

Notary Public

Massachusetts

Commission Expires Jul 9, 2021

Drathy a. Binford Notary Public

Ben Ht	DATE:	July	26	2016	
Benjamin Kleinstiver		L	•		

## The Commonwealth of Massachusetts

00	- Contraction	W HOLDING	
On this 26 TH day	of July	, 20 <u>/6</u> , before me, the undersign	ned notary
public, personally appeared	IBENSAMIN K	LEINSTIVER, proved to me thi	rough
satisfactory evidence of ide	entification, which w	vere MA DRIVER'S LICENSE	, to be

the person(s) whose name(s) is/are signed on the preceding or attached document, and acknowledged to me that  $\cancel{B} \cancel{K}$  signed it voluntarily for its stated purpose.

DOROTHY A. BINFORD

Notary Public

Massachusetts

Commission Expires Jul 9, 2021

Notary Public

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The Assignee hereby acknowledges and accepts the foregoing assignment.			
Assignee: THE GENERAL HOSPITAL CORPORATION			
Signature: Date: 8 10/16			
Name: BRuce Tedes on Bruce W. Tedeschi, PhD, JD  Director, Innovation			
Title: Di Rector of IP Director, Innovation  The General Hospital Corporation			
The Commonwealth of Massachusetts			
Juffich ss.			
On this 10 H day of Jugust, 20/6, before me, the undersigned notary			
public, personally appeared Bruce W. Teneschi, proved to me through			
satisfactory evidence of identification, which were RT Darwa's License, to be			
the person(s) whose name(s) is/are signed on the preceding or attached document, and			
acknowledged to me that signed it voluntarily for its stated purpose.			
Snephele			
Notary Public			
ANTHONY W. SUTTON Notary Public Commonwealth of Massachusetts My Commission Expires April 25, 2019			

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PATENT REEL: 039557 FRAME: 0748

**RECORDED: 08/26/2016**