504313818 04/10/2017

PATENT ASSIGNMENT COVER SHEET

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EPAS ID: PAT4360500

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
J. Keith Joung	04/17/2014
Jeffry D. Sander	04/18/2014
Morgan Maeder	04/11/2014
Yanfang Fu	04/17/2016

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:	15430218

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) 956-5925 Email: apsi@fr.com

Correspondent Name: JASMINE DECOCK

FISH & RICHARDSON P.C. Address Line 1:

Address Line 2: P.O.BOX 1022

Address Line 4: MINNEAPOLIS, MINNESOTA 55440-1022

ATTORNEY DOCKET NUMBER:	40174-0007002
NAME OF SUBMITTER:	CHRISTINE M. GRACE
SIGNATURE:	/Christine M. Grace/
DATE SIGNED:	04/10/2017

Total Attachments: 10

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> **PATENT REEL: 041939 FRAME: 0106** 504313818

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PATENT REEL: 041939 FRAME: 0107

<u>ASSIGNMENT</u>

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, we, J. Keith Joung, of Winchester, Massachusetts; Jeffry D. Sander, of Ames, Iowa; Morgan Maeder, of Brookline, Massachusetts; and Yanfang Fu, of Malden, Massachusetts, hereby assign to: THE GENERAL HOSPITAL CORPORATION, a corporation of Massachusetts, having a place of business 55 Fruit Street, Boston, Massachusetts 02114; and its successors and assigns (collectively hereinafter called "the Assignee"), the entire right, title, and interest throughout the world in the inventions and improvements which are the subject of and described and/or claimed in a utility application for United States Patent, entitled "USING TRUNCATED GUIDE RNAS (TRU-GRNAS) TO INCREASE SPECIFICITY FOR RNA-GUIDED GENOME EDITING," filed on March 14, 2014, and assigned U.S. Serial Number 14/213,723; this assignment including said application, any and all United States and foreign patents, utility patents and models, continuations, continuations-in-part, divisionals, reexaminations, reissues, and design registrations granted for any of said inventions or improvements, and the right to claim priority based on the filing date of said application under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes; and this assignment also including, without limitation, any claims (known or unknown, suspected or unsuspected) of any nature that we have or may have against any party for infringement of any of the patents and patent applications listed herein, and the right to sue for past infringement and to recover and retain damages and profits in respect thereof; and

we authorize the Assignee to apply in all countries in our name or in its own name for patents, utility models, design registrations, and like rights of exclusion and for inventors' certificates for said inventions and improvements; and

we hereby covenant and agree that we will communicate to the Assignee or nominees all facts known to us pertaining to said inventions and improvements, and we agree for ourselves and our respective heirs, legal representatives, and assigns, without further compensation to perform such lawful acts and to sign such further applications, assignments, reissues, Preliminary Statements, and other lawful documents, testify in all legal proceedings, make all rightful oaths and declarations, and in general perform or cause to be performed all lawful acts necessary or proper to aid the Assignee or nominees in obtaining, maintaining, and enforcing all lawful patent protection for the inventions and improvements in the United States and in foreign countries; and

we hereby covenant that we have the full right to convey the entire right, title, and interest herein assigned and that we have not executed and will not execute any agreement in conflict herewith.

DATE: 4/17/14	J. KIJATH JOUNG
In Witness Whereof, I hereto so thisday of	set my hand and seal at <u>Mass. Deneral Hoppila.</u>
State of; County of; **SS.*********************************	
Before me this <u>/2 類</u> day o appeared <u>J・ビビノアイ ブベノル</u> ki	of
ON BOARD ON THE PROPERTY OF TH	Notary Public / My Commission Expires: 8-1-2-14
1/1080 mm/	

DATE	4/18/2014 JEFFRY D. SANDER
this	IN WITNESS WHEREOF, I hereto set my hand and seal at 2.5790 19 th day of <u>April</u> , 20 <u>14</u>
State o	f <u>Jowa</u> : of <u>Polk</u> :
m me i	Before me this
and de	Notary Public My Commission Expires: 01-15-2016

Spencer Bite Bagby, Commission Number: 778479 My Commission Expires: 01/15/2016

DATE:				
		M	IORGAN MAEDER	
In V	VITNESS WHERE	OF, I hereto set my	hand and seal at	
this	day of		, 20	
State of				
County of_		: ss. :		
Bef	ore me this	day of		, 20, personally n whose name is subscribed
appeared	-	known 1	to me to be the perso	n whose name is subscribed
		nt and acknowledge herein contained.	d that she/he execute	d the same as her/his free ac
	• •			
		Nota	ary Public	
		My	Commission Expires	:

DATE	: <u>4/17/2014</u>	YANFANG FU	ar_	
this	IN WITNESS WHEREOF, I hereto set	t my hand and seal at <u>////</u>	e <u>es Lonora</u>	(Nospita
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	of <u>1914</u> y of <u>SUFFOLI</u> SS.	Á		
	Before me this <u>/ ブラ</u> day of red <u>ゾルルデルルム デリ</u> km	e April .	20 /4 . nei	rsonally
appear	red <u>YANFANG FU</u> kno	own to me to be the person	whose name is sub	scribed
	foregoing Assignment and acknowledge the sale acknowledge			
ano uc	ed for the purposes therein containe	Drazha a t	German walne	
		Notary Public /		
		ed. Standard Total Notary Public My Commission Expires:	8-1-3-514	
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ASSIGNMENT

MUM Allo M

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, we, J. Keith Joung, of Winchester, Massachusetts; Jeffry D. Sander, of Ames, Iowa; Morgan Maeder, of Brookline, Massachusetts; and Yanfang Fu, of Malden, Massachusetts, hereby assign to: THE GENERAL HOSPITAL CORPORATION, a corporation of Massachusetts, having a place of business 55 Fruit Street, Boston, Massachusetts 02114; and its successors and assigns (collectively hereinafter called "the Assignee"), the entire right, title, and interest throughout the world in the inventions and improvements which are the subject of and described and/or claimed in a utility application for United States Patent, entitled "USING TRUNCATED GUIDE RNAS (TRU-GRNAS) TO INCREASE SPECIFICITY FOR RNA-GUIDED GENOME EDITING," filed on March 14, 2014, and assigned U.S. Serial Number 14/213,723; this assignment including said application, any and all United States and foreign patents, utility patents and models, continuations, continuations-in-part, divisionals, reexaminations, reissues, and design registrations granted for any of said inventions or improvements, and the right to claim priority based on the filing date of said application under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes; and this assignment also including, without limitation, any claims (known or unknown, suspected or unsuspected) of any nature that we have or may have against any party for infringement of any of the patents and patent applications listed herein, and the right to sue for past infringement and to recover and retain damages and profits in respect thereof; and

we authorize the Assignee to apply in all countries in our name or in its own name for patents, utility models, design registrations, and like rights of exclusion and for inventors' certificates for said inventions and improvements; and

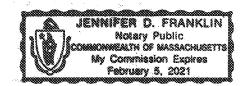
we hereby covenant and agree that we will communicate to the Assignee or nominees all facts known to us pertaining to said inventions and improvements, and we agree for ourselves and our respective heirs, legal representatives, and assigns, without further compensation to perform such lawful acts and to sign such further applications, assignments, reissues, Preliminary Statements, and other lawful documents, testify in all legal proceedings, make all rightful oaths and declarations, and in general perform or cause to be performed all lawful acts necessary or proper to aid the Assignee or nominees in obtaining, maintaining, and enforcing all lawful patent protection for the inventions and improvements in the United States and in foreign countries; and

we hereby covenant that we have the full right to convey the entire right, title, and interest herein assigned and that we have not executed and will not execute any agreement in conflict herewith.

DATE:			
	J. KEITI	HJOUNG	
In Witness W	HEREOF, I hereto set my hand a	nd seal at	***************************************
this day	of, 20_		
State of	÷		
County of	: ss. ::		
Before me this	s day of	, 20	, personally
appeared	day ofknown to me to	be the person whose nar	ne is subscribed
to the foregoing Assig	gnment and acknowledged that so oses therein contained.	he/he executed the same	as her/his free act
	Notary Pub	lic	
	My Commi	ssion Expires	

DATE:			
		Y D. SANDER	
In Witness Whei	REOF, I hereto set my hand	and seal at	
this day of _	, 20	0	
State of	: ss.		
Before me thisappeared	day of known to me ent and acknowledged that	to be the person whose na	me is subscribed
	Notary Pu	ıblic	***************************************
	My Comr	níssion Expires	

DATE: 4/11/14	MORGAN MAEDER			
IN WITNESS WHEREOF, I hereto set this day of	my hand and seal at Editas Medicine, 2014			
State of MA:: ss. County of Middle Say :	S . S			
Before me this day of, 20, personally appeared				
	Notary Public Jewi ら、Frankliの My Commission Expires: ユーケー2021			



DATE:					
	77-11-11-11-11-11-11-11-11-11-11-11-11-1	YAI	NFANG FU		
In V	WITNESS WHEREC	OF, I hereto set my ha	nd and seal at		
this	day of		, 20		
State of		•			
County of _		: \$s. :			
Bef	ore me this	day of	, 20	, personally	
appeared	***************************************	known to me to be the person whose name is subscribed			
to the foreg	oing Assignment or the purposes th	and acknowledged t	hat she/he executed the same	as her/his free act	
		Notary	Public		
		My Co	ommission Expires:		