## 504481301 07/31/2017

# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4528003

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
MICHAEL F. CONCINO	10/02/2015
BETTINA STRACK-LOGUE	09/24/2015
MUTHURAMAN MEIYAPPAN	09/24/2015
ANGELA W. NORTON	09/24/2015
BOHONG ZHANG	09/24/2015
ANDREA ISKENDERIAN	09/24/2015
LIEH YOON LOW	09/30/2015
DIANNA LUNDBERG	09/24/2015
ALLA ROMASHKO	09/24/2015
HICHAM NAIMY	10/13/2015

#### **RECEIVING PARTY DATA**

Name:	SHIRE HUMAN GENETIC THERAPIES, INC.	
Street Address:	300 SHIRE WAY	
City:	LEXINGTON	
State/Country:	MASSACHUSETTS	
Postal Code:	02421	

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

Property Type	Number
Application Number:	15503223

#### **CORRESPONDENCE DATA**

**Fax Number:** (617)526-9899

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) 526-9706

Email:shynes@proskauer.comCorrespondent Name:PROSKAUER ROSE LLPAddress Line 1:ONE INTERNATIONAL PLACE

Address Line 4: BOSTON, MASSACHUSETTS 02110

ATTORNEY DOCKET NUMBER: SHR-1164US

PATENT REEL: 043145 FRAME: 0941

NAME OF SUBMITTER:	FANGLI CHEN	
SIGNATURE:	/Fangli Chen, Reg. No. 51,551/	
DATE SIGNED:	07/31/2017	
	This document serves as an Oath/Declaration (37 CFR 1.63).	
Total Attachments: 14		
source=SHR-1164US Assignment#page	e1.tif	
source=SHR-1164US Assignment#page	e2.tif	
source=SHR-1164US Assignment#page3.tif		
source=SHR-1164US Assignment#page4.tif		
source=SHR-1164US Assignment#page5.tif		
source=SHR-1164US Assignment#page6.tif		
source=SHR-1164US Assignment#page7.tif		
source=SHR-1164US Assignment#page8.tif		
source=SHR-1164US Assignment#page9.tif		
source=SHR-1164US Assignment#page10.tif		
source=SHR-1164US Assignment#page11.tif		
source=SHR-1164US Assignment#page12.tif		
source=SHR-1164US Assignment#page13.tif		

source=SHR-1164US Assignment#page14.tif

PATENT REEL: 043145 FRAME: 0942

Docket Number: 2006685-1195

## COMBINED JOINT ASSIGNMENT & DECLARATION

### A. <u>ASSIGNMENT</u>

WHEREAS, each of the below-named inventors whose name and residence is set forth in the following Table 1:

Inventor Name	City, State
1. Michael F. Concino	Lexington, Massachusetts
2. Bettina Strack-Logue	Lexington, Massachusetts
3. Muthuraman Meiyappan	Lexington, Massachusetts
4. Angela W. Norton	Lexington, Massachusetts
5. Bohong Zhang	Lexington, Massachusetts
6. Andrea Iskenderian	Lexington, Massachusetts
7. Lieh Yoon Low	Lexington, Massachusetts
8. Dianna Lundberg	Lexington, Massachusetts
9. Alla Romashko	Lexington, Massachusetts
10. Hicham Naimy	Lexington, Massachusetts

Table 1

hereby declares and agrees, on behalf of himself/herself and all of his/her successors and assigns that each is aware of the patent application(s) entitled:

# TARGETED THERAPEUTICS AND USES THEREOF; and

pre	pared for filing in the United	I States Patent and T	rademark Office; or
ide in the Ur	ntified by United States App lited States Patent and Trade	olication Serial No. mark Office on;	; and
X ider	ntified by International Paten August 11, 2015	nt Application No.	PCT/US2015/044713
k	l is also aware of the followi		ons:
	Serial No.		Filed
	62/036,082	Aug	ust 11, 2014

WHEREAS, Shire Human Genetic Therapies, Inc. (hereinafter "ASSIGNEE"), having a usual place of business at 300 Shire Way, Lexington, Massachusetts 02421, desires to acquire or confirm an interest therein;

Page 1 of 14

NOW, THEREFORE, to all whom it may concern be it known that, in consideration of agreements previously and duly entered into between the parties, and/or for other good and valuable consideration, the receipt of which is hereby acknowledged, each of us has sold, assigned, and transferred and/or do hereby sell, assign, and transfer unto said ASSIGNEE, its successors, assigns, and legal representatives, my entire right, title, and interest in and throughout the United States of America, its territories and all foreign countries, in and to any and all inventions described in the patent application, and/or any priority applications noted above, including any right of priority thereto; and hereby confirm that my sale, assignment and transfer is and was effective at least as of the filing date of the patent application and/or priority application. Our sale, assignment and transfer applies to the above-referenced patent application, and to any application that is based in whole or in part on the patent application, including any divisional, continuing, substitute, renewal, reissue, reexamination and other applications, for example that claim priority to the patent application. Also, this sale, assignment and transfer pertains to any and all other rights arising under or pursuant to any and all international agreements, treaties, or laws relating to the protection of industrial property, including all rights of priority under the International Convention for the Protection of Industrial Property, and in and to any such patent(s) as may issue thereon including any and all original and reissued patents which have been or shall be issued in the United States and foreign countries; said inventions, applications, and patent(s) to be held and enjoyed by ASSIGNEE for its own use and for its successors, assigns and legal representatives, to the full end of the term for which said patent(s) may be granted as fully and entirely as the same would have been held by each of us had this sale, assignment and transfer not been made;

AND, each of us hereby acknowledges that this Assignment, being of our entire right, title, and interest in and to the inventions, carries with it the right in ASSIGNEE, by attorneys and agents of ASSIGNEE selection, to apply for and receive any and all patent(s) for said inventions in its own name;

AND, each of us hereby further agrees for ourselves and our executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the patent(s) to ASSIGNEE, its successors, assignees, and legal representatives, but at its expense and charges, including the execution of application for patents in foreign countries, the execution of substitution, reissue, divisional or continuation applications, and the giving of testimony, preliminary statements, or other statements in any interference or other proceeding in which the inventions or any applications or patents directed to the inventions may be involved by communicating to the ASSIGNEE all facts we know relating to the inventions and their history, and generally by doing everything possible which ASSIGNEE shall consider desirable for aiding in securing and maintaining proper patent protection for the inventions and for vesting title in the inventions and all applications for patent and all patents on the inventions in ASSIGNEE;

AND, each of us further hereby authorizes ASSIGNEE or its attorneys or agents to insert the correct serial number(s) and/or filing date(s) into this assignment document, if appropriate;

Page 2 of 14

AND, each of us hereby appoints ASSIGNEE as our common agent for purposes of prosecuting international patent applications and any national patent applications for which such common agency is recognized;

AND, each of us hereby requests the Commissioner for Patents of the United States Patent and Trademark Office to issue any and all patent(s) as shall be granted upon said application or applications based thereon to ASSIGNEE, its successors, assigns, and legal representatives;

AND, each of us covenants with said ASSIGNEE that no assignment, grant, mortgage, license, or other agreement affecting the rights and property herein conveyed has been made to others by us, and that full right to convey the same as herein expressed is possessed by us.

Page 3 of 14

# B. DECLARATION (37 CFR 1.63)

As below named inventors, we hereby declare that:

This declaration is directed to the patent application entitled:

### TARGETED THERAPEUTICS AND USES THEREOF; and

Office; o	attached hereto or prepared for filing in the United States Patent and Tradema	rk
filed in th	identified by United States Application Serial No	 ; or
x filed on	identified by International Patent Application No. PCT/US2015/044713  August 11, 2015 . PCT/US2015/044713	
The	above-identified application was made or authorized to be made by us.	
We application	believe that we are the original joint inventors of a claimed invention	in the
We	hereby acknowledge that any willful false statement made in this declara-	ition is

We have reviewed and understand the contents of the application, including the claims and are aware of the duty to disclose to the United States Patent and Trademark Office all information known to be material to patentability as defined in 37 CFR 1.56.

punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or

Page 4 of 14

2006685-1195

both.

Inventor Signature:	Wales De Onein		10/2/15
Print Inventor Name:	Michael F. Concino	Date:	7. 4.
Address:	*	·	<del></del>
: W.			
Witness Signature: _	4 a co-	<del>-</del> ÿ	
Print Witness Name:	Linda Common		
Address:	97 Long Hill Pal		
	6/tom, 17/4 01746		
Witness Signature:	Sich Mode Ennis	<del></del>	
Print Witness Name:	<u> Linh Ghdu Ennis</u>	<del></del>	
Address: 10 C	West Aver	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
(4) h	APPA HUI À		

SIG	NED this 2446	day of September, 20 15
		Bettişia Strack-Logue
		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
STATE OF	Musiculiusetts	Tured.
COUNTY OF	Middlecx	SS,
		· canadariana.
Before me this	<u>2</u> day of	September , 20/5, personally appeared
Be	ttina Strack-Logue	, and proved to me through satisfactory
	receding or attached	to be the person whose name is document, and acknowledged that he/she executed the or the purposes set forth.
		NOTARY PUBLIC A HOLDE
왕		Name:
		My Commission Expires:
		PATRICIA A. HOFSTETTER Notary Public COMMONWEALTH OF MASSACHUSETTS My Commission Expires May 29, 2020

Page 6 of 14

SIGNED t	his	day of	Sep,	20 🖎	S		
		: [P	Mothuramar	1 Meiya	Nppan		
STATE OF $M$	zachoetts idDesex	SS.					
Before me this  Muthuram evidence of identity v signed on the precedir same, of his/her own	ng or attached doc	//Cense ument, and	acknowledg	to me tl o be the	rough satis person wh	factory ose name	is
		Name:	Y PUBLIC	A nives:	14.60%	<u></u>	<u>. 14 K.</u>
		wy con		A PATS	RICIA A. HOI Notary Put DAWEALTH OF MA Ny Commission May 29, 2	olic ISSACHUSETTS I Expires	

Page 7 of 14

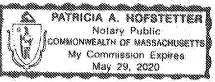
SIGN	ED this <u>24</u>	day of September, 2015
		Angela W. Norton
STATE OF	Másachvects	
COUNTY OF	Middlergx	SS.
Before me this	24 day of	September , 20 5, personally appeared
evidence of iden signed on the pr	eceding or attache	, and proved to me through satisfactory  //১/১১ to be the person whose name is I document, and acknowledged that he/she executed the for the purposes set forth.
		NOTARY PUBLIC A HOSTULES
		Name:
		My Commission Expires:
		PATRICIA A. HOFSTETTER Notary Public COMMONWEALTH OF MASSACHUSETTS My Commission Expires May 29, 2020

SIGNED this 24 th day of Colember , 20 15
Bohong Zhang
STATE OF 17/405544/ruse/hsSS.
COUNTY OF MULLICEX
Before me this 24 day of Sylvinger, 2015, personally appeared  Bohong Zhang, and proved to me through satisfactory
evidence of identity which was <u>fraction</u> to be the person whose name is signed on the preceding or attached document, and acknowledged that he/she executed the same, of his/her own free will and for the purposes set forth.
NOTARY PUBLIC A HOUTE
Name: W My Commission Expires:
PATRICIA A. HOFSTETTER Notary Public COMMONWEALTH OF MASSACHUSETTS My Commission Expires May 29, 2020

SIGN	IED this	day of
		A Judia Andrea Iskenderian
		Tenacoa isnomacian
STATE OF	Massichung	
COUNTY OF	Middlesex	SS. 
Before me this	24 day of	Set mice , 2015, personally appeared
	drea Iskenderian	
evidence of iden signed on the pro	tity which was eccding or attache	to be the person whose name is document, and acknowledged that he/she executed the for the purposes set forth.
		NOTARY PUBLIC A HARTINA
		My Commission Expires:
		my commission expues.
		PATRICIA A. HOFSTETTER  Notary Public  COMMONWEALTH OF MASSACHUSETTS  My Commissions  My Commissions  My 29 2020

Inventor Signature:	Jul lo		9/30/1
Print Inventor Name:	Lieh Yoon Low	Date:	
Address:			
Witness Claneture	Steph D. Smith	, AU - L - L	
Witness Signature; Print Witness Name:	STEPHEN G- SMITH	FBhaba-d	
Address: 3 VV		PARK	CA.
	91320	NNCOREST - 100 - 1	
Witness Signature:	mely		
Print Witness Name:	Shaila Beng, No	<del></del>	
Address: 2822	White Ridge PO By	01 #28	
7722	sand Onles CA	9/362	

SIGN	NED this	day of	Septemb	<sub>%/</sub> , 20 /*	<u> </u>	
			Dianna	//////////Lundberg	ndpest	
STATE OF	M484Ause	<u>/</u>			. Series	
COUNTY OF	Middleicx	SS.				
Before me this	24 day of	Septen			illy appeare	
evidence of ider signed on the pr	Dianna Lundberg  Itity which was eceding or attached own free will and	l document	 , and acknow	to be the		ose name is
		NO:	rary publ	LIC Kee P	r Alesto	
		Nan			V	
		Му	Commission	Expires:	<u> </u>	
				good Househough		



SIGNED this day of Juleanles, 20 /5
Longest Longest
Alla Romashko
STATE OF Mesachise th
COUNTY OF Middlestx
Before me this
Alla Romashko , and proved to me through satisfactory evidence of identity which was
NOTARY PUBLIC A HASTITE
Name:
My Commission Expires:
PATRICIA A. HOFSTETTER Notary Public COMMONWEALTH OF MASSACHUSETTS My. Commission Expires My. Commission Expires

SIGNE	ED this <u>\ Z <sup>i</sup>*</u>	day of October, 2015
		Hicham Naimy
STATE OF	Massachusett	
COUNTY OF	Milloex	SS <sub>2</sub>
Before me this		الم الحرية , 20 الم , personally appeared
***************************************	icham Naimy	, and proved to me through satisfactory
	eding or attached doc	to be the person whose name is cument, and acknowledged that he/she executed the the purposes set forth.
		NOTARY PUBLIC A WESTER
		Name:
		My Commission Expires:
		PATRICIA A. HOFSTETTER  Notary Public.  COMMONWEALTH OF MASSACHUSETTS  My Commission Expires.  May 29, 2020

Page 14 of 14

2006685-1195

6969854v1

RECORDED: 07/31/2017