505008304 07/18/2018

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
STEVE BOWMAN	07/10/2018
CHASE FETZER	07/10/2018
RICHARD BRAGA	07/10/2018
EVI SHIAKOLAS	07/10/2018

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: 3

Property Type	Number
Application Number:	15804439
Application Number:	62417862
PCT Number:	US1760177

CORRESPONDENCE DATA

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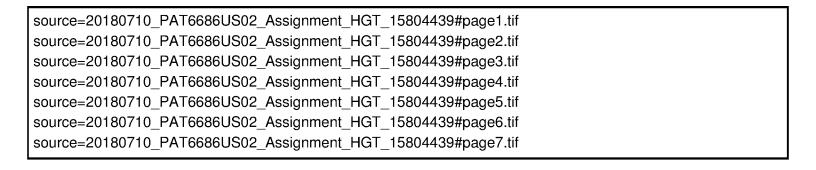
Address Line 4: BOSTON, MASSACHUSETTS 02111

ATTORNEY DOCKET NUMBER:	SHIR-003/01US 33543/47
NAME OF SUBMITTER:	THOMAS C. MEYERS
SIGNATURE:	/Thomas C. Meyers/
DATE SIGNED:	07/18/2018

Total Attachments: 7

PATENT REEL: 046378 FRAME: 0550

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PATENT REEL: 046378 FRAME: 0551

ASSIGNMENT

WHEREAS we, the below named inventors,

Steve Bowman, Chase Fetzer, Richard Braga, and Evi Shiakolas

hereinafter referred to as "Assignor(s)" have made an invention(s), hereinafter referred to as the "Invention(s)," set forth in an application for patent, entitled:

SMALL UNIT DOSAGE PLUNGER ROD STOPS

for which we filed a U.S. Patent Application on November 6, 2017, which bears U.S. Patent Application Serial No. 15/804,439; and

SHIRE HUMAN GENETIC THERAPIES, INC., a Delaware corporation whose post office address is 300 Shire Way, Lexington, MA 02421 (the "Assignee"), is desirous of acquiring the entire right, title, and interest in: the Inventions; the applications for patent identified above; the right to file applications for patent of any country on the Inventions; any application for patent of any country claiming priority to these applications; any provisional or other right to recover damages, including royalties, for prior infringements of these patents applications; and any patent of any country that may be granted therefor or thereon.

NOW, THEREFORE, for good and sufficient consideration, the receipt of which is hereby acknowledged, and to the extent that the Assignor has not done so already via a prior agreement with the Assignee, or if the Assignor has already done so via a prior agreement with the Assignee then in confirmation of any obligation to do so in said prior agreement, the Assignor has sold, assigned, transferred, and set over, and by these presents does sell, assign, transfer, and set over, unto the Assignee, its successors, legal representatives, and assigns, the Assignor's entire right, title, and interest in:

- (a) the Invention(s);
- (b) the application for patent identified above;
- (c) the right to file applications for patent of any country on the Invention(s), including all rights under the Paris Convention for the Protection of Industrial Property and under the Patent Cooperation Treaty;
 - (d) any application(s) for patent of any country claiming the Invention(s);
- (e) any application(s) for patent of any country claiming priority to the application for patent identified above or any application(s) for patent claiming the Invention(s), including any division(s), continuation(s), and continuation(s)-in-part; and

- (f) any provisional or other right to recover damages, including royalties, for prior infringements of any application for patent identified in the preceding paragraphs (b)-(e); and
- (g) any patent(s) of any country that may be granted for or on any application for patent identified in the preceding paragraphs (b) (e), including any reissue(s) and extension(s) of said patent(s).

The above-granted rights, titles, and interests are to be held and enjoyed by the Assignee, for its own use and behalf and the use and behalf of its successors, legal representatives, and assigns, as fully and entirely as the same would have been held and enjoyed by the Assignor had this sale and assignment not been made.

The Assignor hereby represents to the Assignee, its successors, legal representatives, and assigns, that, at the time of execution and delivery of these presents, or if applicable, at such time said prior agreement was executed, the Assignor is a lawful owner of an undivided interest in the entire right, title, and interest in and to the Invention(s), that the Invention(s) are unencumbered, except, if applicable, by obligation to assign in accordance with said prior agreement, and that the Assignor has good and full right and lawful authority to sell and convey the same in the manner set forth herein.

The Assignor hereby covenants and agrees to and with the Assignee, its successors, legal representatives, and assigns, that the Assignor will sign all papers and documents, take all lawful oaths, and do all acts necessary or required to be done in connection with any and all proceedings for the procurement, maintenance, enforcement and defense of the Invention(s), said applications, and said patents, including interference proceedings, without charge to the Assignee, its successors, legal representatives, and assigns, but at the cost and expense of the Assignee, its successors, legal representatives, and assigns.

The Assignor hereby requests the patent authority to issue/grant said patents of their respective country to the Assignee for the sole use and behalf of the Assignee, its successors, legal representatives, and assigns.

Date:	Steve Bowman
State of <u>MassachuseHs</u>)) ss.	
County of <u>Middlesex</u>)	
On 10 Join 2018 , before me,	known to me or proved to me on the basis //sease, to be the ument and acknowledged to me that he t by his signature on the instrument the
WITNESS my hand and official seal.	
Signature of Notary Public	
My Commission Expires:	Place Notary Seal Above

Attorney Docket No. SHIR-003/01US 33543/47

Date: 10 July 2018	Ву:	Chase Fetzer	<i>A</i>
State of)		
County of) ss.)		
On Notice 2018, before Public, personally appeared Chase Fetzer, of satisfactory evidence of identification, person whose name is subscribed to the executed the same in his authorized capa person, or the entity upon behalf of which the	personally leading the which were within instanting the witty, and the personal transfer which we have a controlled to the weak and the which we have a controlled to the weak and the w	known to me or proved to Lease Trument and acknowledge nat by his signature on the	o me on the basis, to be the ed to me that he he instrument the
WITNESS my hand and official seal.			
Signature of Notary Public			
My Commission Expires: 15 June 20	223	Place Notary S	Seal Above

Date: <u>10 プレL 2018</u>	ву:	Richard Braga	A community
State of	·);		
) ss.		
County of <u>Middlesex</u>	ÿ		
On 10 July 2018, before Public, personally appeared Richard Braga, of satisfactory evidence of identification, we person whose name is subscribed to the executed the same in his authorized capaciperson, or the entity upon behalf of which the	personally known to which were	o me or proved to me or proved to me or proved to me or proved to me or the interest on the in	ne on the basis, to be the to me that he instrument the
WITNESS my hand and official seal.			
Signature of Notary Public			
My Commission Expires: 45 June 20	123	Place Notary Seal	Above

Date: 10 July, 2018 By: Evi Shiakolas	
State of	
) ss.	
County of Middlesex)	
On 10 July 3018, before me, Amanda Cucchiara, Notary	
Public, personally appeared Evi Shiakolas, personally known to me or proved to me on the basis	
of satisfactory evidence of identification, which were, to be the	
person whose name is subscribed to the within instrument and acknowledged to me that he	
executed the same in his authorized capacity, and that by his signature on the instrument the	
person, or the entity upon behalf of which the person acted, executed the instrument.	
WITNESS my hand and official seal.	
Signature of Notary Public	
My Commission Expires:	

Signature:	
Print Name: Margo Furman	
Title: VP Legal Intellectual Property	
Shire Human Genetic Therapies, Inc.	
State of	
County ofmiddlesex	
On	
or proved to me on the basis of satisfactory evidence of identification, which were	
//cense , to be the person whose name is subscribed to the within	
instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted,	
executed the instrument.	
WITNESS my hand and official seal.	
Signature of Notary Public	
My Commission Expires: /5 June 2023 Place Notary Seal Above	
63088841 x1	

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