

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT5593059

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
CHARLES RIVER DISCOVERY RESEARCH SERVICES UK LIMITED	04/24/2019
RECEIVING PARTY DATA	
Name:	CHARLES RIVER LABORATORIES, INC.
Street Address:	251 BALLARDVALE STREET
City:	WILMINGTON
State/Country:	MASSACHUSETTS
Postal Code:	01887
PROPERTY NUMBERS Total: 2	
Property Type	Number
Application Number:	16299996
PCT Number:	US1921897
CORRESPONDENCE DATA	
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<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>	
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ATTORNEY DOCKET NUMBER:	2006685-1657, -1658
NAME OF SUBMITTER:	SURIN K. MONG, PHD
SIGNATURE:	/Surin K. Mong/
DATE SIGNED:	06/26/2019
Total Attachments: 3	
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CONFIRMATION OF PATENT ASSIGNMENT

This Confirmation of Patent Assignment is entered into by and between **Charles River Laboratories, Inc.**, having a principal place of business at 251 Ballardvale Street, Wilmington, MA 01887 ("CRL"), **Charles River Discovery Research Services UK Limited**, a company registered in England and Wales with company number 04622227 having a registered office at Robinson Building, Chesterford Research Park, Saffron Walden, Essex, CB10 1XL, UK ("Discovery UK"), and **Shire Human Genetic Therapies, Inc.**, with an office located at 300 Shire Way, Lexington, MA 02421 ("Shire").

WHEREAS, CRL has acquired an interest in the patent applications identified by United States Application Serial No. 16/299,996, filed March 12, 2019, International Patent Application No. PCT/US19/21897, filed March 12, 2019, Taiwan Application No. 108108497, filed March 13, 2019, and is aware of United States Application Nos. 62/757,728, filed November 8, 2018, and 62/642,376, filed March 13, 2018 (the "Patents") from its affiliate Discovery UK);

WHEREAS, CRL and Shire have signed a master services agreement effective as of August 19, 2014 (the "Master Services Agreement") for CRL and/or one or more of its affiliates to provide scientific consulting, drug discovery, and development services to Shire; and

WHEREAS, Discovery UK and CRL wish to confirm that Discovery UK has sold, conveyed, transferred, assigned, and delivered and/or does hereby sell, convey, transfer, assign, and deliver to CRL, its successors, legal representatives and assigns, Discovery UK's whole past, present, and future right, title, and interest in and to the Patents; and

WHEREAS, CRL and Shire wish to confirm that pursuant to obligations to assign and transfer under the Master Services Agreement, CRL has sold, conveyed, transferred, assigned, and delivered and/or does hereby sell, convey, transfer, assign, and deliver to Shire, its successors, legal representatives and assigns, CRL's whole past, present, and future right, title, and interest in and to the Patents.

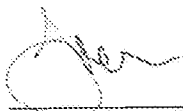
NOW THEREFORE, in consideration of agreements previously and duly entered into among CRL, Discovery UK, and Shire, and/or for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Discovery UK hereby confirms that it has sold, conveyed, transferred, assigned, and delivered and/or does hereby sell, convey, transfer, assign, and deliver to CRL, Discovery UK's whole past, present, and future right, title, and interest, free from all encumbrances, in and throughout the United States of America, its territories, and all foreign countries, in and to the Patents, including any right of priority thereto. Further in consideration of the Master Services Agreement previously and duly entered into between CRL and Shire, CRL hereby confirms that it has sold, conveyed, transferred, assigned, and delivered and/or does hereby sell, convey, transfer, assign, and deliver to Shire, CRL's whole past, present, and future right, title, and interest, free from all encumbrances, in and throughout the United States of America, its territories, and all foreign countries, in and to the Patents, including any right of priority thereto. This Confirmation of Patent Assignment applies to the Patents, and to any patent application that is based in whole or in part on the Patents, including any continuations, divisions, continuations-in-part, extensions, reissues, re-examinations, and other patent application(s), including any patent application(s) that claim foreign priority to or domestic benefit of the Patents. Also, this Confirmation of Patent Assignment pertains to any and all other rights, privileges, and advantages, including any and all rights to damages, profits, or recoveries of any nature for past, present, and future infringements of the Patents, 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 patent applications and patent(s) to be held and enjoyed by Shire for its own use and for each of its successors, legal representatives, and assigns, 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 Discovery UK prior to assignment to CRL.

AND for the same consideration, Discovery UK and CRL hereby covenant and agree to and with Shire, their successors, legal representatives, and assigns that Discovery UK and CRL will, at the cost and expense of Shire, sign all papers and documents, take all lawful oaths, and do all acts necessary or required to be done for the recordation of this Confirmation of Patent Assignment to Shire.

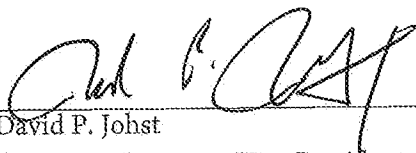
AND Discovery UK and CRL hereby request the Director of the United States Patent and Trademark Office to issue any and all patents of the United States arising from such United States patents and patent applications included in the Patents to Shire, its respective successors, legal representatives, and assigns.

IN WITNESS WHEREOF, I hereto set my hand and seal at SAFFRON
WALDEN, UK this 24th day of APRIL, 2019.



Name: DR JACKIE MACRITCHIE
Title: SENIOR MANAGING DIRECTOR
Charles River Discovery Research Services UK Limited

IN WITNESS WHEREOF, I hereto set my hand and seal at Wilmington, Mass.
U.S. this 24th day of April, 2019.



Name: David P. Johst
Title: Corporate Executive Vice President
Charles River Laboratories, Inc.

IN WITNESS WHEREOF, I hereto set my hand and seal at _____,
_____ this _____ day of _____, 2019.

Name: Kevin McGough
Title: Global Head Internal Medicine, Oncology IP and Trademarks
Shire Human Genetic Therapies, Inc.

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 patent applications and patent(s) to be held and enjoyed by Shire for its own use and for each of its successors, legal representatives, and assigns, 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 Discovery UK prior to assignment to CRL.

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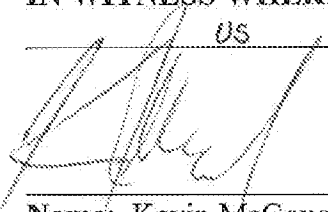
IN WITNESS WHEREOF, I hereto set my hand and seal at _____,
_____ this _____ day of _____, 2019.

Name:
Title:
Charles River Discovery Research Services UK Limited

IN WITNESS WHEREOF, I hereto set my hand and seal at _____,
_____ this _____ day of _____, 2019.

Name:
Title:
Charles River Laboratories, Inc.

IN WITNESS WHEREOF, I hereto set my hand and seal at Lexington, MA,
US this 7th day of May, 2019.



Name: Kevin McGough
Title: Global Head Internal Medicine, Oncology IP and Trademarks
Shire Human Genetic Therapies, Inc.