

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	
CONVEYING PARTY DATA		
	Name	Execution Date
	MANNKIND CORPORATION	05/22/2017
RECEIVING PARTY DATA		
Name:	SHANGHAI FOSUN PHARMACEUTICAL INDUSTRIAL DEVELOPMENT CO. LTD.	
Street Address:	BUILDING A, NO. 1289 YISHAN ROAD	
City:	SHANGHAI	
State/Country:	CHINA	
Postal Code:	200233	
PROPERTY NUMBERS Total: 15		
Property Type	Number	
Application Number:	61257696	
Application Number:	13505530	
Application Number:	15349872	
Application Number:	61320975	
Application Number:	13639734	
Application Number:	14594400	
Application Number:	15600473	
Application Number:	60942743	
Application Number:	12135571	
Application Number:	12941530	
Application Number:	14078792	
Application Number:	14969837	
Application Number:	15356292	
Application Number:	11266603	
Application Number:	13185693	
CORRESPONDENCE DATA		
Fax Number:	(949)253-0902	
<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:	1951300
NAME OF SUBMITTER:	STEPHANIE NEW
SIGNATURE:	/Stephanie New/
DATE SIGNED:	05/23/2017

Total Attachments: 5
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ASSIGNMENT

WHEREAS MannKind Corporation, a legal entity duly organized and existing under and by the laws of the State of **Delaware** and having its principal place of business at **25134 Rye Canyon Loop, Suite 300, Valencia, CA 91355** (hereafter, together with any successors, legal representatives, or assigns thereof, "ASSIGNOR"), owned rights in, to and under the U.S. and foreign patents and patent applications listed in the attached APPENDIX (hereafter the "Patent Rights");

WHEREAS, Shanghai Fosun Pharmaceutical Industrial Development Co. Ltd. a legal entity duly organized and existing under and by the laws of **The People's Republic of China** and having its principal place of business at **Building A, No. 1289 Yishan Road, Shanghai 200233, P.R. China**, (hereafter, together with any successors, legal representatives, or assigns thereof, "ASSIGNEE"), acquired the Patent Rights owned by ASSIGNOR under the terms of an Agreement;

AND WHEREAS, ASSIGNOR and ASSIGNEE desire to have a recordable instrument formalizing the transfer of the Patent Rights owned by ASSIGNOR to ASSIGNEE;

NOW THEREFORE, for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, ASSIGNOR does hereby sell, assign, transfer, convey, endorse, and hereby set over unto ASSIGNEE the full and exclusive right, title and interest in, to and under the Invention to be held and enjoyed by ASSIGNEE, as fully and entirely as the same would have been held and enjoyed by ASSIGNOR had this assignment and sale not been made including the full and exclusive right, title and interest in, to and under 1) any patent application, or any other legal instrument equivalent thereof, including, without limitation, continuation, division, continuation-in-part, substitute, reexamination, renewal, inventor's certificate, and utility model, which has been or may be submitted therefor and thereon anywhere in the World, such term defined herein as including the United States of America, its territorial possessions, and any and all foreign countries under national laws or under the provisions of the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, or any other international treaty equivalent thereof; 2) any Letters Patent, or any other legal instrument equivalent thereof, which has been or may be granted therefor and thereon, in the World, for the full term or terms for which the same may be granted; 3) any reissue, extension, or any other legal instrument equivalent thereof, on any patent application or Letters Patent which has been or may be granted therefor and thereon in the World; and 4) any right to claim priority to a filing date, or any other legal equivalent thereof, which has been or may be claimed by any patent application or Letters Patent therefor and thereon in the World.

ASSIGNOR hereby covenants and agrees to perform any lawful action when deemed essential by and to ASSIGNEE's full enjoyment, protection, enforcement and title in, to and under the Invention and rights hereby transferred, including, but not limited to, promptly communicating and providing any and all known and accessible facts, data or any other pertinent information; promptly executing and delivering any and all papers, documents, forms, declarations, oaths, affidavits or any other legal instrument; promptly assisting and participating in any and all depositions, hearings, proceedings, trials, appeals, or any other legal procedure; promptly testifying under oath in any and all interference, post grant review, litigation or any other administrative or judicial proceeding; and promptly completing any and all actions necessary or desirable to carry out any and all purposes thereof, relating to any and all proceedings in

connection with the submission, procurement, issuance, maintenance, enforcement or defense of the invention and rights hereby transferred.

IN TESTIMONY WHEREOF, I hereunder set my hand this 22 day of May, 2017 as a duly authorized representative of ASSIGNOR.

ASSIGNOR

Thelma Cleland
Printed Name

Thelma Chen Cleland
Signature

Senior Director, Intellectual Property
Title

State of New York)
County of Putnam) ss.:

On this 22 day of May, 2017 before me, Barbara A. Murphy, personally appeared Thelma Chen Cleland, who proved to me on the basis of satisfactory evidence 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.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

Witness my hand and official seal.

Barbara A. Murphy
Notary Public

BARBARA A. MURPHY
NOTARY PUBLIC-STATE OF NEW YORK
No. 01MU5026589
Qualified in Putnam County
My Commission Expires April 25, 2018

APPENDIX

IRE-1 Patents

MKC Reference	Reference #	Country	Serial #	File Date	Patent #	Issue Date	Status
Patent Family #1							
B&W.002-CH	1951300.00292CH	CH	05816986.3	11/7/2005	1943262	1/23/2013	Issued
B&W.002-DE	1951300.00292DE	DE	05816986.3	11/7/2005	1943262	1/23/2013	Issued
B&W.002-EP	1951300.00292EP	EP	05816986.3	11/7/2005	1943262	1/23/2013	Issued
B&W.002-FR	1951300.00292FR	FR	05816986.3	11/7/2005	1943262	1/23/2013	Issued
B&W.002-GB	1951300.00292GB	GB	05816986.3	11/7/2005	1943262	1/23/2013	Issued
B&W.002-JP	1951300.00293JP	JP	2008-538855	11/7/2005			Abandoned
B&W.002-JP-1	1951300.00293JP2	JP	2012-226780	11/7/2005			Abandoned
B&W.002-US	1951300.00287	US	11/266,603	11/4/2005	8,017,331	9/13/2011	Issued
B&W.002-US-1	1951300.00287US	US	13/185,693	7/19/2011	8,124,343	2/28/2012	Issued
B&W.002-WO	1951300.00291WO	WO	PCT/US2005/040342	11/7/2005			Nat phase
Patent Family #2							
B&W.004-BE	5184.00052	BE	08770492	11/30/2009	2155643	8/10/2016	Issued
B&W.004 CA	1951300.00295CA	CA	2690913	6/9/2008			Allowed
B&W.004 CA-1	1951300.00295.1 CA	CA	2963784	6/9/2008			Pending
B&W.004 CH	1951300.00297CH	CH	08770492	6/9/2008	EP2155643	8/10/2016	Issued
B&W.004 CN	1951300.00296CN	CN	200880019035.2	6/9/2008	CN102015606B	2/4/2015	Issued
B&W.004 DE	1951300.00297DE	DE	08770492	6/9/2008	EP2155643	8/10/2016	Issued
B&W.004 EP	1951300.00297EP	EP	08770492	6/9/2008	EP2155643	8/10/2016	Issued
B&W.004 ES	1951300.00297ES	ES	08770492	6/9/2008	EP2155643	8/10/2016	Issued
B&W.004 FR	1951300.00297FR	FR	08770492	6/9/2008	EP2155643	8/10/2016	Issued
B&W.004 GB	5184.00052	GB	8770492	11/30/2009			Pending
B&W.004 HK	5184.00057	HK	101061182.2	6/21/2010			Pending
B&W.004 IN	1951300.00299IN	IN	4151/KOLNP/2009	6/9/2008			Pending
B&W.004 IT	1951300.00297IT	IT	08770492	6/9/2008	EP2155643	8/10/2016	Issued
B&W.004 JP	1951300.00300JP	JP	2010-511418	6/9/2008	4827986	9/22/2011	Issued
B&W.004 MX	1951300.00301MX	MX	MX/a/2009/013332	6/9/2008	305084	11/9/2012	Issued
B&W.004 EP.1	1951300.00297.1EP	EP	12171202	6/9/2008			Abandoned
B&W.004 CN-1	1951300.00296.1CN	CN	201310303822.2	6/9/2008	CN103450077B	7/6/2016	Issued
B&W.004 HK-1	1951300.00298HK.2	HK	13106936.9	6/11/2013			Abandoned
B&W.004 JP -1	1951300.00300.1JP	JP	2011-012200	1/24/2011	5684585	1/23/2015	Issued
B&W.004 MX-1	1951300.00301.1MX	MX	MX/a/2012/013084	11/9/2012			Abandoned
B&W.004 EP.2	1951300.00297.2EP	EP	12171206.1	6/9/2008	2520561	2/10/2016	Issued
B&W.004 BE-2	5184.00073	BE	12171206.1	6/7/2012	2520561	2/10/2016	Issued
B&W.004 CH-2	5184.00073	CH	12171206.1	6/7/2012	2520561	2/10/2016	Issued
B&W.004 DE-2	5184.00073	DE	12171206.1	6/7/2012	2520561	2/10/2016	Issued

B&W.004-ES-2	5184.00073	ES	12171206.1	6/7/2012	2520561	2/10/2016	Issued
B&W.004-FR-2	5184.00073	FR	12171206.1	6/7/2012	2520561	2/10/2016	Issued
B&W.004-GB-2	5184.00073	GB	12171206.1	6/7/2012	2520561	2/10/2016	Issued
B&W.004-HK-2	1951300.00298HK.3	HK	13103509.3	3/21/2013	2520561	2/10/2016	Issued
B&W.004-IT-2	5184.00073	IT	12171206.1	6/7/2012	2520561	2/10/2016	Issued
B&W.004-JP-2	1951300.00300.2JP	JP	2013-169387	8/19/2013			Abandoned
B&W.004-EP-3	1951300.00297.3EP	EP	16183344.7	6/9/2008			Pending
B&W.004-JP-3	1951300.00300.3JP	JP	2015-005455	1/15/2015	5941173	5/27/2016	Issued
B&W.004-HK-4	1951300.00298HK	HK	14105694.2	6/9/2008			Pending
B&W.004-US	1951300.00288US	US	60/942,743	6/8/2007			Expired
B&W.004-US	1951300.00288.1US	US	12/135,571	6/9/2008	7,858,666	12/28/2010	Issued
B&W.004-US-1	1951300.00288.2US	US	12/941,530	11/8/2010	8,614,253	12/24/2013	Issued
B&W.004-US-2	1951300.00288.3US	US	14/078,792	11/13/2013	9,241,942	1/26/2016	Issued
B&W.004-US-3	1951300.00288.4US	US	14/969,837	12/15/2015	9,546,149	1/17/2017	Issued
B&W.004-US-4	1951300.00288.5US	US	15/356,292	11/18/2016			Pending
B&W.004-WO	1951300.00294WO	WO	PCT/US2008/066310	6/9/2008			Nat phase
Patent Family #3							
B&W.006-CA	1951300.00303CA	CA	2780149	11/1/2010			Pending
B&W.006-CN	1951300.000304CN	CN	201080054132.2	11/1/2010	CN102724975B	12/2/2015	Issued
B&W.006-EP	1951300.00305EP	EP	10828948.9	11/1/2010			Pending
B&W.006-HK	1951300.00309HK	HK	121101574.7	10/15/2012			Pending
B&W.006-IN	1951300.00306IN	IN	1198/KOLNP/2012	11/1/2010			Pending
B&W.006-JP	1951300.00307JP	JP	2012-537926	11/1/2010	5946409	6/10/2016	Issued
B&W.006-JP-1	5184.00110	JP	2016-077779	4/8/2016			Abandoned
B&W.006-MX	1951300.00308MX	MX	MX/a/2012/005189	11/1/2010			Abandoned
B&W.006-US	05184.00059	US	PCT/US10/054940	11/1/2010			Expired
B&W.006-US	1951300.00289US	US	61/257,696	11/3/2009			Expired
B&W.006-US	1951300.00289.1US	US	13/505,530	7/12/2012	9,493,435	11/15/2016	Issued
B&W.006-1	1951300.00289.2US	US	15/349,872	11/11/2016			Pending
B&W.006-WO	1951300.00302WO	WO	PCT/US2010/054940	11/1/2010			Expired
Patent Family #4							
B&W.007-CA	1951300.00311CA	CA	2795350	4/5/2011	2795350	2/9/2016	Issued
B&W.007-CA-1	1951300.00311.1CA	CA	2914966	4/5/2011			Pending
B&W.007-CN	1951300.00312CN	CN	201180027605.4	4/5/2011			Pending
B&W.007-EP	1951300.00313EP	EP	11715346	4/5/2011			Published
B&W.007-HK	1951300.00314HK	HK	13106373.9	5/29/2013			Published
B&W.007-IN	1951300.00315IN	IN	3389/KOLNP/2012	4/5/2011			Pending
B&W.007-JP	1951300.00316JP	JP	2013-503848	4/5/2011	2013-525281	6/20/2013	Abandoned
B&W.007-JP-1	1951300.00316.1JP	JP	2015-104182	4/5/2011			Pending

B&W.007-MX	1951300.00317MX	MX	MX/a/2012/011504	4/5/2011	327678	2/9/2015	Issued
B&W.007-MX-1	1951300.00317.1MX	MX	MX/a/2015/001652	2/5/2015			Pending
B&W.007-US	1951300.00290US	US	61/320,975	4/5/2010			Expired
B&W.007-US-2	1951300.00290.1US	US	TBA	TBA			Pending
B&W.007-US-7	1951300.00290.2US	US					Proposed
B&W.007-US	1951300.00290	US	13/639,734	4/5/2011	9,040,714	5/26/2015	Issued
B&W.007US-1	1951300.000290US2	US	14/594,400	1/12/2015			Allowed
B&W.007-WO	1951300.00310WO	WO	PCT/US2011/031274	4/5/2011			Expired