

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT5096502

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
SANKET GANDHI	12/08/2010
KAREN MORALEDA	12/07/2010
JADWIGA JACHOWICZ	12/07/2010
MICHAEL ZUPON	12/07/2010
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	MANKIND CORPORATION
<b>Street Address:</b>	30930 RUSSELL RANCH ROAD
<b>Internal Address:</b>	SUITE 301
<b>City:</b>	WESTLAKE VILLAGE
<b>State/Country:</b>	CALIFORNIA
<b>Postal Code:</b>	91362
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	15913993
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(617)646-8646
<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>	
<b>Phone:</b>	617-646-8000
<b>Email:</b>	patents_BillM@wolfgreenfield.com
<b>Correspondent Name:</b>	WOLF, GREENFIELD & SACKS, P.C.
<b>Address Line 1:</b>	600 ATLANTIC AVENUE
<b>Address Line 4:</b>	BOSTON, MASSACHUSETTS 02210
<b>ATTORNEY DOCKET NUMBER:</b>	M1117.70005US03
<b>NAME OF SUBMITTER:</b>	DORIS A. CHAMPAGNE
<b>SIGNATURE:</b>	/Doris A. Champagne/
<b>DATE SIGNED:</b>	08/14/2018
<b>Total Attachments: 5</b>	
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**PATENT**

**REEL: 046803 FRAME: 0427**

## ASSIGNMENT

For good and valuable consideration, the receipt of which is hereby acknowledged, I, the undersigned Assignor, hereby:

1. Sell, assign and transfer to MannKind Corporation, a Delaware corporation having a place of business at 28903 North Avenue Paine; Valencia, California 91355, its successors, assigns and legal representatives, all hereinafter referred to as the Assignee, my entire right, title and interest for the United States and all foreign countries, in and to any and all inventions and designs which are disclosed in the application for United States Letters Patent filed in the United States Patent and Trademark Office on November 2, 2010 under No. 12/917,611, bearing Attorney Docket No. M1117.70005US01, and entitled REACTOR FOR PRODUCING PHARMACEUTICAL PARTICLES IN A PRECIPITATION PROCESS, and in and to the application and all corresponding provisional, non-provisional, divisional, continuing, substitute, renewal, reissue and all other applications for Letters Patent, utility models, industrial designs or similar intellectual property rights which have been or shall be filed in the United States, internationally, and in any foreign country, including but not limited to China, Japan and Korea, on any of the inventions; and in and to all original and reissued patents which have been or shall be issued in the United States or any other jurisdiction on the inventions, including the right to apply for patent rights in each foreign country and all rights to priority, including the right to claim priority for China, Japan and Korea, as well as the right to sue in its own name and recover damages for past infringement of any United States Letters Patent and foreign patent;
2. Agree that the Assignee may apply for and receive Letters Patent and utility model and industrial design registrations for the inventions in its own name; and when requested, without charge to but at the expense of the Assignee, I agree to carry out in good faith the intent and purpose of this assignment, by executing all non-provisional, divisional, continuing, substitute, renewal, reissue, and all other patent, utility model and industrial design applications on any and all the inventions, by executing all rightful oaths, assignments, powers of attorney and other papers, by communicating to the Assignee all facts known to me relating to the inventions and the history thereof, and generally by doing everything reasonably possible which the Assignee shall consider desirable for aiding in securing and maintaining proper protection for the inventions and for vesting title to the inventions and all applications for patents and all patents on the inventions, in the Assignee;
3. Request the Director of the United States Patent and Trademark Office and non-US patent authorities to issue the Letters Patent to the Assignee;
4. Authorize and request Wolf, Greenfield & Sacks, P.C. to supply any missing patent/application identification information or correct any errors in the patent/application identification information provided above, whether discovered prior to or after recordation;
5. Covenant with the Assignee that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made to others by me and that full right to convey the same as herein expressed is possessed by me; and
6. Appoint Assignee, through its designee, my attorney-in-fact to execute, in my name and on my behalf, any and all documents required to effectuate this Assignment, specifically including, but not limited to, those documents specified above and any necessary corrective assignments.

This instrument is executed under seal and signed under the pains and penalties of perjury under the laws of the United States of America.

Dec 08, 2010  
Date

Sanket Gandhi  
Inventor: Sanket Gandhi  
Address: 55 Mill Plain Rd.  
Unit 17-2  
Danbury, CT 06811  
Citizenship: US

STATE/Commonwealth of Connecticut  
COUNTY OF Fairfield:

On this 8 day of December, 2010, before me, the undersigned notary public, personally appeared Sanket Gandhi, proved to me through satisfactory evidence of identification, which were FD Badge, to be the person who signed the preceding or attached document in my presence and swore or affirmed to me that the contents of the document are truthful and accurate to the best of (his) (her) knowledge and belief and acknowledged to me that (he) (she) signed it voluntarily for its stated purpose.

SEAL

Edward J. Hall  
Notary Public

My commission expires: Dec 31 2014

12/07/10  
Date

K. L. L. L.  
Inventor: Karen Moraleda  
Address: 141 State Route 39  
New Fairfield, CT 06812  
Citizenship: US

STATE/Commonwealth of Connecticut  
COUNTY OF Fairfield:

On this 7 day of December, 2010, before me, the undersigned notary public,  
personally appeared Karen Moraleda, proved to me through satisfactory evidence of  
identification, which were ID Badge,  
to be the person who signed the preceding or attached document in my presence and swore or affirmed  
to me that the contents of the document are truthful and accurate to the best of (his) (her) knowledge  
and belief and acknowledged to me that (he) (she) signed it voluntarily for its stated purpose.

SEAL

Thomas D. Hall  
Notary Public

My commission expires: Dec 31 2014

Date 07 December 2010

Inventor: Jadwiga Jachowicz

Address: 14 Aunt Patty's Lane West  
Bethel, CT 06801

Citizenship: US

STATE/Commonwealth of Connecticut  
COUNTY OF Fairfield:

On this 7 day of December, 2010, before me, the undersigned notary public,  
personally appeared Jadwiga Jachowicz, proved to me through satisfactory evidence of  
identification, which were FD Badge,  
to be the person who signed the preceding or attached document in my presence and swore or affirmed  
to me that the contents of the document are truthful and accurate to the best of (his) (her) knowledge  
and belief and acknowledged to me that (he) (she) signed it voluntarily for its stated purpose.

SEAL

[Signature]  
Notary Public

My commission expires: Dec 31, 2014

07 Dec 2010  
Date

Michael Zupon  
Inventor: Michael Zupon  
Address: 57 Lynden Drive  
Basking Ridge, New Jersey 07920  
Citizenship: US

STATE/Commonwealth of Connecticut  
COUNTY OF Fairfield:

On this 7 day of December, 2010, before me, the undersigned notary public,  
personally appeared Michael Zupon, proved to me through satisfactory evidence of  
identification, which were FD Badge,  
to be the person who signed the preceding or attached document in my presence and swore or affirmed  
to me that the contents of the document are truthful and accurate to the best of (his) (her) knowledge  
and belief and acknowledged to me that (he) (she) signed it voluntarily for its stated purpose.

SEAL

Shirley L. Hall  
Notary Public

My commission expires: Dec 31 2014