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| SUBMISSION TYPE: | | | NEW ASSIGNMENT | | | |
|--|--------------------------|-------|------------------|--------------------|--|--|
| NATURE OF CONVEYANCE: | | | ASSIGNMENT | | | |
| CONVEYING PARTY DATA | | | | | | |
| | | N | lame | Execution Date | | |
| Anders Hasager Boss | | | | 03/13/2006 | | |
| Rodney J. Woods | | | | 03/13/2006 | | |
| Joseph W. Sulner | | | | 03/16/2006 | | |
| Solomon S. Steiner | | | | 04/20/2006 | | |
| RECEIVING PARTY DATA | | | | | | |
| Name: | MannKind Corporation | | | | | |
| Street Address: | 28903 North Avenue Paine | | | | | |
| City: | Valencia | | | | | |
| State/Country: | CALIFORNIA | | | | | |
| Postal Code: | 91355 | | | | | |
| PROPERTY NUMBERS Total: 1 Property Type Number | | | | | | |
| Property Type Application Number: 1 | | 11329 | Number | | | |
| | | | | | | |
| CORRESPONDENCE DATA | | | | | | |
| Fax Number: (949)253-0902 | | | | | | |
| Correspondence will be sent via US Mail when the fax attempt is unsuccessful. | | | | | | |
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| Correspondent Name: Louis C. Cullman | | | | | | |
| Address Line 1:1900 Main Street, Suite 600Address Line 4:Irvine, CALIFORNIA 92614-7319 | | | | | | |
| Address Line 4: Irvine, CALIFORNIA 92614-7319 | | | | | | |
| ATTORNEY DOCKET NUMBER: | | | 51300-00017 | | | |
| NAME OF SUBMITTER: | | | Louis C. Cullman | | | |
| Total Attachments: 5 | | | | | | |
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| 500099068 | | | REEL: | 017549 FRAME: 0161 | | |

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ASSIGNMENT

WHEREAS, WE, Anders Hasager Boss, residing at 285 Cold Soit Road, Princeton, NJ 08540, Solomon S. Steiner, residing at 24 Old Wagon Road, Mount Kisco, NY 10549, Rodney J. Woods, residing at 1213 Ridgebury Road, New Hampton, NY 10956, and Joseph W. Suiner, residing at 330 Bullard Avenue, Paramus, NJ 07652 have invented certain new and useful inventions disclosed in an application for United States Letters Patent entitled "POTENTIATION OF GLUCOSE ELIMINATION" also known as U.S. Patent Application No. 11/329,686, filed on January 10, 2006, which claims priority to U.S. Provisional Patent Application No. 60/667,393, filed on March 31, 2005, and U.S. Provisional Patent Application No. 60/643,070, filed on January 10, 2005 and executed by us on even date herewith;

AND WHEREAS **MannKind Corporation**, a corporation organized and existing under the laws of **Delaware**, having a place of business at 28903 North Avenue Paine, Valencia, CA 91355 (hereafter, together with any successors, legal representatives or assigns thereof, called "ASSIGNEE") wants to acquire the entire right, title and interest in and to said improvements and application.

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) to each of us in hand paid, and other good and valuable consideration, the receipt of which is hereby acknowledged, we have sold, assigned, transferred and set over, and do hereby sell, assign, transfer and set over to ASSIGNEE the entire right, title and interest in and to said inventions, and said application and all divisions, continuations and continuations-in-part thereof, and all United States Letters Patents which may be granted thereon and all reissues, reexaminations and extensions thereof, and all priority rights under all available International Agreements, Treaties and Conventions for the protection of intellectual property in its various forms in every participating country, all national and regional applications deriving therefrom, and all subsequent patents and divisional patents, and all applications for patents (including related rights such as utility-model registrations, inventor's certificates, and the like) heretofore or hereafter filed for said improvements in any foreign countries, and all patents (including all continuations, continuations-in-part, divisions, extensions, renewals, substitutes, and reissues thereof) granted for said inventions in any foreign countries; and we hereby authorize and request the United States Commissioner of Patents and Trademarks, and any officials of foreign countries whose duty it is to issue patents on applications as aforesaid, to issue all patents for said improvements to ASSIGNEE in accordance with the terms of this Assignment;

AND WE HEREBY covenant that we have full right to convey the entire interest herein assigned, and that we have not executed, and will not execute, any agreement in conflict herewith;

AND WE HEREBY further covenant and agree that we will communicate to ASSIGNEE any facts known to us respecting said inventions, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, continuations-in-part, substitute and reissue applications, make all rightful oaths and generally do everything possible to aid ASSIGNEE to obtain and enforce proper patent protection for said improvements in all countries.

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IN TESTIMONY WHEREOF, I hereunder set my hand this 13 day of MRCH, 2006

Anders Hasager Boss Assignor Anders H. Boss, M.D., M.F.P.M. Senior Vice President Medical, Clinical & Scientific Affairs

STATE OF NEW JERSEY

) ss.)

COUNTY OF

On this <u>13</u> day of <u>FEEDORT MM</u>, before me personally appeared <u>ANDER's Boss</u> to me known or proved on the basis of satisfactory evidence to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he/she executed the same.

(SEAL)

IN TESTIMONY WHEREOF, I hereunder set my hand this 3 day of Marca 20 CL

Rodney J. Wøods Assignor

STATE OF NEW YORK Connecticit FORK CONVECTICIT) FORFIFICT) SS. COUNTY OF

On this 13^{M} day of 100^{M} , before me personally appeared 100^{M} , $1-100^{\text{M}}$ to me known or proved on the basis of satisfactory evidence to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he/she executed the same.

tary Public

(SEAL)

My Commission Exp. July 31, 2009

| IN TESTIMONY WHEREOF, I hereunder | r set my hand this <u>/6</u> day of <u>muh</u> , 20 <u>0</u> 6 |
|---|--|
| DATED at, | this 16 th day of <u>March</u> , 2006 Supple Loseph W. Sulner Assignor |
| STATE OF NEW JERSEY COUNTY OF $Bergen$ On this 16 day of 2006 , to me known or proved on the basis of name is subscribed to the foregoing insecuted the same. |) ss. before me personally appeared <u>form</u> W. Sulve satisfactory evidence to be the person whose strument and acknowledged to me that he/she |
| (SEAL) | NOTARY BHRHQIPFIALEW JERSEY MY COMMISSION EXPIRES 10-22-07 Reference 332 |

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IN TESTIMONY WHEREOF, I hereunder set my hand this 20 day of April, 2006

) ss.

Solomon S. Steine Assignor

STATE OF NEW YORK

COUNTY OF Westchester

On this <u>20th</u>day of <u>April</u>, before me personally appeared <u>Solowor</u> <u>S</u>. Sterner to me known or proved on the basis of satisfactory evidence to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he/she executed the same.

Notary P httic

(SEAL)

Kathleon K. Balun Notary Public Thate of New York #016A6000237 Qualified The acnam County Commission Theorem 12-15-2009

RECORDED: 04/28/2006