PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|-----------------|----------------|
| Sunil Mehta | 07/06/2012 |
| Tod Herman | 07/06/2012 |
| Joe McMahon | 07/10/2012 |
| Stephen Wilson | 07/06/2012 |
| lan Fitzpatrick | 07/06/2012 |
| Timothy Craig | 07/06/2012 |

RECEIVING PARTY DATA

| Name: | KBI Biopharma, Inc. | |
|-------------------|---------------------|--|
| Street Address: | 1101 Hamlin Road | |
| Internal Address: | P.O. Box 15579 | |
| City: | Durham | |
| State/Country: | NORTH CAROLINA | |
| Postal Code: | 27704 | |

PROPERTY NUMBERS Total: 1

| Property Type | Number | |
|---------------------|----------|--|
| Application Number: | 13499807 | |

CORRESPONDENCE DATA

Fax Number:

Phone: 919-854-1400

jadair@myersbigel.com Email:

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

via US Mail.

501989628

Correspondent Name: MYERS BIGEL SIBLEY & SAJOVEC

Address Line 1: PO BOX 37428

RALEIGH, NORTH CAROLINA 27627 Address Line 4:

ATTORNEY DOCKET NUMBER: 9775-11

REEL: 028556 FRAME: 0280

PATENT

| NAME OF SUBMITTER: | Stephen J. Petroski |
|--|---------------------|
| Total Attachments: 8 source=9775-11-assignment#page1.tif source=9775-11-assignment#page2.tif source=9775-11-assignment#page3.tif source=9775-11-assignment#page4.tif source=9775-11-assignment#page5.tif source=9775-11-assignment#page6.tif source=9775-11-assignment#page7.tif source=9775-11-assignment#page8.tif | |

ASSIGNMENT

THIS ASSIGNMENT, made by us, Sunil Mehta, a citizen of India, residing at 2109

Jadewood Drive, Morrisville, NC 27560; Tod Herman, a citizen of the United States of America, residing at 5624 Bowater Crossing, Hillsborough, NC 27278; Joe McMahon, a citizen of the United States of America, residing at 102 Falkner Drive, Chapel Hill, NC 27517; Stephen Wilson, a citizen of Australia, residing at 2 Stanley St, Kew, Australia, 3101; Ian

Fitzpatrick, a citizen of Australia, residing at 129 Tennyson St, Elwood, Australia, 3184; and Timothy Craig, a citizen of Australia, residing at 38 Bayview Road, Tooradin, Australia, 3980:

WITNESSETH: That,

WHEREAS, we are joint inventors of certain new and useful improvements in METHODS, SYSTEMS AND APPARATUS FOR MANIPULATING PARTCILES for which U.S. Patent Application No. 13/499,807 was filed on April 2, 2012 in the United States Patent and Trademark Office. I hereby authorize and request Myers Bigel Sibley & Sajovec, P.A., to insert, in the blank spaces above, the filing date and application number of said application when known; and

WHEREAS, KBI Biopharma, Inc., a Delaware corporation, having its principal place of business at 1101 Hamlin Road, PO Box 15579, Durham, NC 27704, hereinafter referred to as assignee, is desirous of acquiring the entire right, title and interest in and to said invention as described in said application, and in and to any and all Letters Patent which shall be granted therefor in the United States of America and all foreign countries;

NOW, THEREFORE, To Whom It May Concern, be it known that for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, we have sold and by these presents do hereby sell, assign, transfer, and convey unto the said assignee, its successors and assigns, the entire right, title, and interest in and to the said invention and application, and in and to any and all continuations, continuations-in-part, or divisions thereof, and in and to any and all Letters Patent of the United States of America and all foreign countries or reissues or other forms of protection thereof which may be granted therefor or thereon, for the full end of the term for which said Letters Patent may be granted along with any term extensions thereon or therefor, together with the right to claim the priority of said application in all foreign countries in accordance with the International Convention, the same to be held and enjoyed by said assignee, its successors and assigns, as fully and entirely as the same would have been held and enjoyed by us if this assignment and sale had not been made.

We hereby request that said Letters Patent be issued in accordance with this assignment.

We further covenant and agree that, at the time of the execution and delivery of these presents, we possess full title to the invention and application above-mentioned, and that we have the unencumbered right and authority to make this assignment.

We further covenant and agree to promptly communicate to said assignee or its representatives any facts known to us relating to said invention, to testify in any interference or legal proceedings involving said invention, to execute any additional papers which may be requested to confirm the right of the assignee, its representatives, successors, or assigns to secure patent or similar protection for the said invention in all countries and to vest in the assignee complete title to the said invention and Letters Patent, without further compensation, but at the expense of said assignee, its successors, assigns, and other legal representatives; and we hereby instruct, and further covenant and agree to bind our heirs, legal representatives, and assigns, to do same, without further compensation, but at the expense of said assignee or its representatives.

| IN WITNESS WHE | REOF, I have hereunto set m | y hand and seal on this | 612 day of |
|----------------------|-----------------------------|-------------------------|------------|
| July , 2012. | Mand Wefine Sunil Mehta | (SEAL) | |
| Witnessed by: Rochel | Rogers | | |
| * | 1 Rogers | ····· | |
| Date: 716112 | | | |
| | | | |
| × 1 | | | |
| Witnessed by: | anty | | |
| Printed Name: Ed | Fulton | | |
| Date: 7/6// | 7 | | |

| IN WITNESS WHEREOF, I have hereunto set my hand and seal on this 6th day of July, 2012. |
|---|
| Tod Herman (SEAL) |
| Witnessed by: <u>Teff Pederson</u> |
| Printed Name: Jeffy a Rederse |
| Date: 06 501 2012 |
| |
| |
| Witnessed by: Kachel Rogers |
| Printed Name: <u>Rachel Rogers</u> |
| Data 711 112 |

| IN WITN | VESS WHEREOF, I have hereunto set my hand a | nd seal on this | day of |
|---|---|---------------------------------------|--------|
| July | , 2012. / | | |
| (| / | | |
| | Joe McMahon | (SEAL) | |
| Witnessed by: | P. E. Husilman | - | |
| | P. E KREISELHAN | | |
| | • | | |
| Date: | 10 JUL 12 | | |
| · | • | | |
| 3376 | X ~ | | |
| Witnessed by: | | | |
| Printed Name: _ | lenga Howe | | |
| Date: \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | July 2012 | · · · · · · · · · · · · · · · · · · · | |

| IN WITH | IESS WHERE | EOF, I have hereunto set | my hand and seal o | on this <u>6 Th</u> c | lay of |
|-----------------|------------|---|--------------------|-----------------------|--------|
| JULY | , 2012. | Stephen Wilson | (SEA | T) | |
| Witnessed by: _ | Bin. | de | | | |
| Printed Name: _ | BRIAN | HANGAHAN | | | |
| Date: | 6 July | 2012. | | | |
| Witnessed by: | (X | John John John John John John John John | | | |
| Printed Name: | Robi | GET NEIL | | | |
| T | Cith | July 2012 | | | |

| TIW WI | ESS WHEREOF, I have hereunto set my hand and seal on this day of | |
|--|--|--|
| JULY | | |
| Witnessed by: _ | Min-Me | |
| Printed Name: _ | BRIAN HANRAHAN | |
| Date: | 6 July 2012. | |
| Witnessed by | Don | |
| Witnessed by: _ | ROBERTNELL | |
| Printed Name: _ | 64 July 2017 | |
| The state of the s | U 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | |

| IN WITI | NESS WHEREOF, I have hereunto set my hand and | seal on this <u>6</u> day of |
|-----------------|---|------------------------------|
| July | , 2012. | |
| | Timothy Craig | (SEAL) |
| Witnessed by: _ | Più fre | |
| Printed Name: _ | BRIAN HANRALLAN | |
| Date: | 6 July 2012 | |
| Witnessed by: | Deil | |
| Printed Name: | ROBERT NEIL | |
| Data | 6th July 2012 | |

| EMILY M. NEELY NOTARY PUBLIC Durham County North Carolina My Commission Expires September 21, 2013 |
|--|
| SEAL My Commission Expires: 9 21 2013 |
| Emily M. Moely Notary Public |
| Enrils M Mach |
| instrument, and he/she acknowledged to me that he/she executed the same for the purposes therein stated, this 6th day of 7014, 2012. |
| Before me personally appeared the person described in and who executed the foregoing |
| COUNTY OF Dyrham) |
| , |
| STATE OF North Carolina |
| Title: Vice President and General Course |
| By: and WB (SEAL) |
| to sign this Assignment on behalf of the Assignee, KBI Biopharma, Inc. |
| , 2012. The undersigned warrants and represents that he/she has the authority |
| IN WITNESS WHEREOF, I have hereunto set my hand and seal on this 6^{th} day of |
| WHEREBY KBI Biopharma, Inc. acknowledges and accepts the assignment; |

PATENT REEL: 028556 FRAME: 0289

RECORDED: 07/16/2012