PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

| SUBMISSION TYPE: | CORRECTIVE ASSIGNMENT | |
|-----------------------|---|--|
| NATURE OF CONVEYANCE: | Corrective Assignment to correct the spelling of the assignee name previously recorded on Reel 026776 Frame 0228. Assignor(s) hereby confirms the assignment. | |

CONVEYING PARTY DATA

| Name | Execution Date |
|--------------|----------------|
| John J. DUNN | 06/10/2011 |

RECEIVING PARTY DATA

| Name: | BROOKHAVEN SCIENCE ASSOCIATES | |
|-------------------|-------------------------------|--|
| Street Address: | 40 Brookhaven Avenue | |
| Internal Address: | Building 460 | |
| City: | Upton | |
| State/Country: | NEW YORK | |
| Postal Code: | 11973-5000 | |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 13107796 |

CORRESPONDENCE DATA

Fax Number: (312)474-0448

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: 312-474-6300

Email: docket@marshallip.com

Correspondent Name: Marshall, Gerstein & Borun LLP

Address Line 1: 233 S. Wacker Drive
Address Line 2: 6300 Willis Tower

Address Line 4: Chicago, ILLINOIS 60606

ATTORNEY DOCKET NUMBER: 31315/44557A2

NAME OF SUBMITTER: Kristen A. Lauterbach

Total Attachments: 3

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PATENT REEL: 026812 FRAME: 0617 USPTO 8/19/2011 11:04:33 AM PAGE 4/004 Fax Server

TO:MARSHALL, GERSTEIN & BORUN LLP COMPANY:233 S. WACKER DRIVE

PATENT ASSIGNMENT

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|--|---------------------|--|-----------------------|--|
| SUBMISSION TYPE | YPE: NEW ASSIGNMENT | | | |
| NATURE OF CONV | EYANCE: | ASSIGNMENT | | |
| CONVEYING PART | Y DATA | I | | |
| | | Execution Date | | |
| John J. DUNN | | | 06/10/2011 | |
| RECEIVING PARTY | DATA | an manusus et en minimus annes et en minimus annes et en minimus et en minimus et en en minimus et en en minim | | |
| Name: | BROOKHA | ER SCIENCE ASSOCIATI | ES | |
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| Internal Address: | Building 460 | Building 460 | | |
| City: | Upton | | | |
| State/Country: | NEW YORK | | | |
| Postal Code: | 11973-5000 | | | |
| Property Type | | | Number | |
| Application Number: 13107 | | 13107796 | | |
| CORRESPONDENC | E DATA | | | |
| Fax Number: | (312)47 | 4-0448 | | |
| - | | Mail when the fax attempt | t is unsuccessful. | |
| Phone: 312-474-6300 Email: docket@marshallip.com | | | | |
| Correspondent Nam | | | | |
| Address Line 1: | 233 S. Wacker Drive | | | |
| Address Line 4: | Chicag | , ILLINOIS 60606-6357 | | |
| ATTORNEY DOCKET NUMBER: | | 31315/44557A2 | 31315/44557A2 | |
| NAME OF SUBMITTER: | | Kristen A. Lautert | Kristen A. Lauterbach | |
| Total Attachments: 2 source=44557A2_As source=44557A2_As | ssigment(Dunn) | | | |

PATENT REEL: 026812 FRAME: 0618 WHEREAS, I John J. Dunn citizen of the United States, residing in Bellport, County of Suffolk, State of New York, ASSIGNOR, am an inventor of an invention and certain new and useful improvements disclosed in an application entitled "Chimeric OspA Genes, Proteins, and Methods of Use Thereof"; I filed the said non-provisional application at the United States Letters Patent on 05/13/2011 accorded S.N. 13/107,796; and

WHEREAS, the **Brookhaven Science Associates**, incorporated in Delaware (BSA), having an office at 40 **Brookhaven Avenue**, **Building 460**, **Upton**, **NY 11973-5000**, desires to acquire the entire right, title, and interest in, under and to the said invention and improvements which are disclosed in the said application, and any Letters Patent wherever they may be issued thereon;

WHEREAS, BSA has elected to take title to said invention pursuant to P.L. 98-620 and has informed the U.S. Department of Energy of that election and the U.S. Department of Energy has not exercised any exceptions thereto under either 401.3(a)(2) or (3) of P.L. 98-620, but retains the right to do so;

NOW, THEREFORE, to all whom it may concern, be it known that for good and valuable consideration, the receipt of which is hereby acknowledged, I, the undersigned ASSIGNOR by these presents do sell, assign, and transfer unto BSA the entire right, title, and interest in, under and to the said invention and improvements as disclosed in the said application as well as any divisional, continuation, renewal, substitute, reissue, reexamination, conversion, and all other applications for Letters Patent or the legal equivalent thereof wherever they may be filed, and in, under and to any and all Letters Patent or the legal equivalent thereof wherever they may be issued thereon including all original, reissue, reexamination, and extensions of said Letters Patent or the legal equivalent thereof;

AND I HEREBY authorize and request the issuing authority whose duty it is to issue patents or other evidence or forms of industrial property protection on applications as aforesaid, to issue the same to and in the name of the Brookhaven Science Associates;

AND I HEREBY covenant and agree that I have full right to convey the entire right, title and interest herein assigned, and that I have not executed, and will not execute, any assignment, grant, mortgage, license or other agreement in conflict herewith;

AND I HEREBY agree to make, execute, and deliver unto BSA any and all rightful oaths, declarations, assignments, powers of attorney, affidavits, statements, and all other documents or instruments; I agree to execute all renewal, divisional, continuation, substitute, reexamination, foreign, reissue, and all other applications; I agree to communicate to BSA, its successors, legal representatives, or its assigns, any facts known to us respecting the said invention and improvements and the history thereof; I agree to testify as to the same in or incident to the prosecution or conduct of any and all applications, before as well as after the issuance of any Letters Patent thereon, or in the adjustment or settlement of any interferences, litigations, or other actions or proceedings that said applications may encounter or in which they may become involved as may be required by BSA, or its duly authorized representative; and I agree to generally do everything possible to aid BSA in protecting the said invention and improvements, and in obtaining, maintaining, defending and enforcing proper protection for the said invention and improvements as may be requested by BSA, its successors, legal representatives or its assigns, except that any expenses arising through extending such assistance will be paid for by proper arrangement with BSA;

PATENT REEL: 026812 FRAME: 0619 AND I HEREBY agree and acknowledge that the sale, assignment and transfer of rights and property set forth herein is and shall be irrevocable and binding upon the heirs, assigns, representatives and successors of each undersigned

ASSIGNOR and shall extend to the successors, assigns and nominees of BSA.

PATENT REEL: 026812 FRAME: 0620

RECORDED: 08/26/2011