

## PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT												
NATURE OF CONVEYANCE:	ASSIGNMENT												
CONVEYING PARTY DATA													
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Lynn Doucette-Stamm</td> <td>12/07/2000</td> </tr> <tr> <td>David Bush</td> <td>11/29/2000</td> </tr> <tr> <td>Qiandong Zeng</td> <td>12/21/2000</td> </tr> <tr> <td>Timothy Opperman</td> <td>12/06/2000</td> </tr> <tr> <td>Chad Eric Houseweart</td> <td>12/11/2000</td> </tr> </tbody> </table>		Name	Execution Date	Lynn Doucette-Stamm	12/07/2000	David Bush	11/29/2000	Qiandong Zeng	12/21/2000	Timothy Opperman	12/06/2000	Chad Eric Houseweart	12/11/2000
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RECEIVING PARTY DATA													
Name:	Genome Therapeutics Corporation												
Street Address:	100 Beaver Street												
City:	Waltham												
State/Country:	MASSACHUSETTS												
Postal Code:	02453												
PROPERTY NUMBERS Total: 1													
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13613827</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13613827								
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CORRESPONDENCE DATA													
Fax Number:	9783410136												
<i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>													
Phone:	978-341-0036												
Email:	iris.fennell@hbsr.com												
Correspondent Name:	Mary K. Murray, Ph.D.												
Address Line 1:	Hamilton, Brook, Smith & Reynolds, P.C.												
Address Line 2:	530 Virginia Road, P.O. Box 9133												
Address Line 4:	Concord, MASSACHUSETTS 01742-9133												
ATTORNEY DOCKET NUMBER:	3687.1000-073												
NAME OF SUBMITTER:	Iris Fennell												

CH \$40.00 13613827

Signature:	/Iris Fennell/
Date:	04/11/2013
Total Attachments: 8 source=36871000073Assignment#page1.tif source=36871000073Assignment#page2.tif source=36871000073Assignment#page3.tif source=36871000073Assignment#page4.tif source=36871000073Assignment#page5.tif source=36871000073Assignment#page6.tif source=36871000073Assignment#page7.tif source=36871000073Assignment#page8.tif	

ASSIGNMENT

WHEREAS, we, Lynne Doucette-Stam, David Bush, Qiandong Zeng, Timothy Opperman and Chad Eric Houseweart have invented a certain improvement in Nucleic Acid and Amino Acid Sequences Relating to Nucleic Acid and Amino Acid Sequences Relating to *Streptococcus pneumoniae* for Diagnostic and Therapeutics described in an application for Letters Patent of the United States, the specification of which:

- is being executed on even date herewith and is about to be filed in the United States Patent Office;
- was filed on May 26, 2000 as Application No. 09/583,110;
- was patented under U.S. Patent No. \_\_\_\_\_ on \_\_\_\_\_.

WHEREAS, Genome Therapeutics Corporation (hereinafter "ASSIGNEE"), a corporation organized and existing under the laws of the Commonwealth of Massachusetts, and having a usual place of business at 100 Beaver Street, Waltham, Massachusetts 02453 desires to acquire an interest therein in accordance with agreements duly entered into with us;

NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, we have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns and legal representatives, the entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to said invention as described in said application, together with the entire right, title and interest in and to said application and such Letters Patent as may issue thereon; said invention, application and Letters Patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held by us had this assignment and sale not been made; we hereby convey all rights arising under or pursuant to any and all international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for Letters Patent. We hereby acknowledge that this assignment, being of the entire right, title and interest in and to said invention, carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all Letters Patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all such Letters Patent to ASSIGNEE for its own name as assignee of the entire right, title and interest therein;

AND, we hereby further agree for ourselves and our executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention to said ASSIGNEE, its successors, assigns and legal representatives, but at its or their expense and

charges, including the execution of applications for patents in foreign countries, and the execution of substitution, reissue, divisional or continuation applications and preliminary or other statements and the giving of testimony in any interference or other proceeding in which said invention or any application or patent directed thereto may be involved;

AND, we do hereby authorize and request the Commissioner of Patents of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said ASSIGNEE, its successors, assigns, and legal representatives.

IN TESTIMONY WHEREOF, we have hereunto set our hands and affixed our seals the date set forth below.

Inventor: *Lynn Doucette-Stamm*  
Lynn Doucette-Stamm

State/Commonwealth  
of *Massachusetts*  
County of *Middlesex*

Then personally appeared before me the above-named Lynn Doucette-Stamm and acknowledged that he/she executed the foregoing instrument as his/her free act and deed this *17<sup>th</sup>* day of *December*, 2000

Notary Public

(SEAL)

*Carol M SASSO* (print name)  
My Commission expires *6/12/10*

Inventor: \_\_\_\_\_  
David Bush

State/Commonwealth  
of \_\_\_\_\_  
County of \_\_\_\_\_

Then personally appeared before me the above-named David Bush and acknowledged that he/she executed the foregoing instrument as his/her free act and deed this \_\_\_\_\_ day of \_\_\_\_\_, 2000

Notary Public

(SEAL)

\_\_\_\_\_  
(print name)

My Commission expires \_\_\_/\_\_\_/\_\_\_

Inventor: *Q. Zeng*  
Qiandong Zeng

State/Commonwealth  
of Massachusetts  
County of Middlesex

Then personally appeared before me the above-named Qiandong Zeng and acknowledged that he/she executed the foregoing instrument as his/her free act and deed this 21 day of December, 2000

Notary Public

(SEAL)

Yanna Boudreau (print name)

My Commission expires 6/21/07

Inventor: *T. Opperman*  
Timothy Opperman

State/Commonwealth  
of Massachusetts  
County of Middlesex

Then personally appeared before me the above-named Timothy Opperman and acknowledged that he/she executed the foregoing instrument as his/her free act and deed this 26<sup>th</sup> day of December, 2000

Notary Public

(SEAL)

Carol M. Sasso (print name)

My Commission expires 6/12/03

Inventor: *Chad Eric Houseweart*  
Chad Eric Houseweart

State/Commonwealth  
of *Massachusetts*  
County of *Middlesex*

Then personally appeared before me the above-named Mark Sulavik and acknowledged that he/she executed the foregoing instrument as his/her free act and deed this \_\_\_\_\_  
*11<sup>th</sup>* day of *December*, 2000

Notary Public

(SEAL)

*Carol M SASSO* (print name)

My Commission expires *6/12/03*

JointASSIGNMENT

WHEREAS, we, Lynne Doucette-Stam, David Bush, Qiandong Zeng, Timothy Opperman and Chad Eric Houseweart have invented a certain improvement in Nucleic Acid and Amino Acid Sequences Relating to Nucleic Acid and Amino Acid Sequences Relating to *Streptococcus pneumoniae* for Diagnostic and Therapeutics described in an application for Letters Patent of the United States, the specification of which:

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NOW, THEREFORE, to all whom it may concern be it known that for and in consideration of said agreements and of other good and valuable consideration, the receipt of which is hereby acknowledged, we have sold, assigned and transferred and by these presents do hereby sell, assign and transfer unto said ASSIGNEE, its successors, assigns and legal representatives, the entire right, title and interest in and throughout the United States of America, its territories and all foreign countries, in and to said invention as described in said application, together with the entire right, title and interest in and to said application and such Letters Patent as may issue thereon; said invention, application and Letters Patent to be held and enjoyed by said ASSIGNEE for its own use and behalf and for its successors, assigns and legal representatives, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held by us had this assignment and sale not been made; we hereby convey all rights arising under or pursuant to any and all international agreements, treaties or laws relating to the protection of industrial property by filing any such applications for Letters Patent. We hereby acknowledge that this assignment, being of the entire right, title and interest in and to said invention, carries with it the right in ASSIGNEE to apply for and obtain from competent authorities in all countries of the world any and all Letters Patent by attorneys and agents of ASSIGNEE's selection and the right to procure the grant of all such Letters Patent to ASSIGNEE for its own name as assignee of the entire right, title and interest therein;

AND, we hereby further agree for ourselves and our executors and administrators to execute upon request any other lawful documents and likewise to perform any other lawful acts which may be deemed necessary to secure fully the aforesaid invention to said ASSIGNEE, its successors, assigns and legal representatives, but at its or their expense and

charges, including the execution of applications for patents in foreign countries, and the execution of substitution, reissue, divisional or continuation applications and preliminary or other statements and the giving of testimony in any interference or other proceeding in which said invention or any application or patent directed thereto may be involved;

AND, we do hereby authorize and request the Commissioner of Patents of the United States to issue such Letters Patent as shall be granted upon said application or applications based thereon to said ASSIGNEE, its successors, assigns, and legal representatives.

IN TESTIMONY WHEREOF, we have hereunto set our hands and affixed our seals the date set forth below.

Inventor: \_\_\_\_\_  
Lynn Doucette-Stamm

State/Commonwealth  
of \_\_\_\_\_  
County of \_\_\_\_\_

Then personally appeared before me the above-named Lynn Doucette-Stam and acknowledged that he/she executed the foregoing instrument as his/her free act and deed this \_\_\_\_\_ day of \_\_\_\_\_, 2000

Notary Public

(SEAL)

\_\_\_\_\_ (print name)  
My Commission expires \_\_\_ / \_\_\_ / \_\_\_

Inventor: *David Bush*  
David Bush

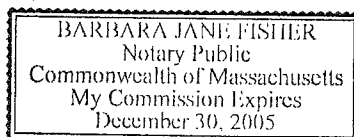
State/Commonwealth  
of Massachusetts  
County of Middlesex

Then personally appeared before me the above-named David Bush and acknowledged that he/she executed the foregoing instrument as his/her free act and deed this 29 day of NOVEMBER, 2000

*Barbara Jane Fisher* Notary Public

(SEAL)

BARBARA JANE FISHER (print name)



PATENT



My Commission expires 12/30/2005

Inventor: \_\_\_\_\_  
Qiandong Zeng

State/Commonwealth  
of \_\_\_\_\_  
County of \_\_\_\_\_

Then personally appeared before me the above-named Qiandong Zeng and acknowledged that he/she executed the foregoing instrument as his/her free act and deed this \_\_\_\_\_ day of \_\_\_\_\_, 2000

Notary Public

(SEAL)

\_\_\_\_\_ (print name)

My Commission expires \_\_\_ / \_\_\_ / \_\_\_

Inventor: \_\_\_\_\_  
Timothy Opperman

State/Commonwealth  
of \_\_\_\_\_  
County of \_\_\_\_\_

Then personally appeared before me the above-named Timothy Opperman and acknowledged that he/she executed the foregoing instrument as his/her free act and deed this \_\_\_\_\_ day of \_\_\_\_\_, 2000

Notary Public

(SEAL)

\_\_\_\_\_ (print name)

My Commission expires \_\_\_ / \_\_\_ / \_\_\_

Inventor: \_\_\_\_\_  
Chad Eric Houseweart

State/Commonwealth  
of \_\_\_\_\_  
County of \_\_\_\_\_

Then personally appeared before me the above-named Mark Sulavik and acknowledged that he/she executed the foregoing instrument as his/her free act and deed this \_\_\_\_\_ day of \_\_\_\_\_, 2000

Notary Public

(SEAL)

\_\_\_\_\_ (print name)

My Commission expires \_\_\_ / \_\_\_ / \_\_\_