

## PATENT ASSIGNMENT

Electronic Version v1.1

Stylesheet Version v1.1

| 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>Vera A. Semenova</td> <td>08/09/2012</td> </tr> <tr> <td>Conrad P. Quinn</td> <td>09/13/2012</td> </tr> <tr> <td>Jan Pohl</td> <td>08/21/2012</td> </tr> <tr> <td>Pavel Svoboda</td> <td>08/21/2012</td> </tr> </tbody> </table> |   | Name          | Execution Date | Vera A. Semenova    | 08/09/2012 | Conrad P. Quinn | 09/13/2012 | Jan Pohl | 08/21/2012 | Pavel Svoboda | 08/21/2012 |
| Name   | Execution Date  |               |                |                     |            |                 |            |          |            |               |            |
| Vera A. Semenova   | 08/09/2012  |               |                |                     |            |                 |            |          |            |               |            |
| Conrad P. Quinn  | 09/13/2012  |               |                |                     |            |                 |            |          |            |               |            |
| Jan Pohl   | 08/21/2012  |               |                |                     |            |                 |            |          |            |               |            |
| Pavel Svoboda  | 08/21/2012  |               |                |                     |            |                 |            |          |            |               |            |
| RECEIVING PARTY DATA   |   |               |                |                     |            |                 |            |          |            |               |            |
| Name:  | THE GOVERNMENT OF THE UNITED STATES OF AMERICA AS REPRESENTED BY THE SECRETARY OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES, CENTERS FOR DISEASE CONTROL AND PREVENTION |               |                |                     |            |                 |            |          |            |               |            |
| Street Address:  | 4770 BUFORD HIGHWAY   |               |                |                     |            |                 |            |          |            |               |            |
| Internal Address:  | TECHNOLOGY TRANSFER OFFICE  |               |                |                     |            |                 |            |          |            |               |            |
| City:  | ATLANTA   |               |                |                     |            |                 |            |          |            |               |            |
| State/Country:   | GEORGIA   |               |                |                     |            |                 |            |          |            |               |            |
| Postal Code:   | 30341   |               |                |                     |            |                 |            |          |            |               |            |
| 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>13577878</td> </tr> </tbody> </table>  |   | Property Type | Number         | Application Number: | 13577878   |                 |            |          |            |               |            |
| Property Type  | Number  |               |                |                     |            |                 |            |          |            |               |            |
| Application Number:  | 13577878  |               |                |                     |            |                 |            |          |            |               |            |
| CORRESPONDENCE DATA  |   |               |                |                     |            |                 |            |          |            |               |            |
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| Correspondent Name:  | Gifford, Krass et al.   |               |                |                     |            |                 |            |          |            |               |            |
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| ATTORNEY DOCKET NUMBER:  | CDC-16102/38  |               |                |                     |            |                 |            |          |            |               |            |
| <b>PATENT</b>  |   |               |                |                     |            |                 |            |          |            |               |            |

NAME OF SUBMITTER:

Weston R. Gould, Ph.D.

**Total Attachments: 8**

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### ASSIGNMENT

we, Vera A. Semenova, of 1507 Candleberry Court; Lilburn, Georgia 30047; UNITED STATES OF AMERICA, a citizen of the United States of America; and Conrad P. Quinn of 1662 Morning Crest Lane; Lilburn, Georgia 30047; UNITED STATES OF AMERICA, a citizen of the United Kingdom; and Jan Pohl, of 435 Bentley Place; Tucker, Georgia 30084; UNITED STATES OF AMERICA, a citizen of the United States of America; and Pavel Svoboda, of 1423 N. Crossing Dr. NE; Atlanta, Georgia 30329; UNITED STATES OF AMERICA, a citizen of the Czech Republic have invented SEROLOGIC CORRELATES OF PROTECTION AGAINST BACILLIS ANTHRACIS INFECTION. This is an Assignment of the following rights, title and interest: (check all that apply):

- United States of America rights, title and interest in the invention.
- Foreign rights, title and interest in the invention
- An application to the Commissioner for Patents of the United States of America filed herewith.
- An application to the Commissioner for Patents of the United States of America has been executed by the undersigned on:
  - United States Provisional Patent Application Serial No. 61/303,055  
filed on February 10, 2010
  - United States Patent Application Serial No. 13/577,878  
Date of Execution: \_\_\_\_\_ Date of Filing: August 8, 2012
- United States Patent No(s).
- International (PCT Patent Application Serial No. PCT/US2011/024317  
filed on February 10, 2011)
- Other (specify): \_\_\_\_\_

We were employed by the Department of Health and Human Services at the time the invention was made. The conditions under which said invention was made are such as to entitle the Government of the United States of America under Paragraph 1(a) of Executive Order 10096, to the entire right, title, and interest in the invention, in the United States and all other countries throughout the world.

In consideration of our obligations under Executive Order 10096, and other valuable consideration, the receipt and sufficiency of which is hereby acknowledged, we the undersigned, have voluntarily sold, assigned, and transferred and do voluntarily sell, assign, and transfer to:

The Government of the United States of America as represented by the Secretary of the Department of Health and Human Services, Centers for Disease Control and Prevention (hereinafter THE GOVERNMENT), and successors and assigns, our full and exclusive right, title, and interest in the patent application and invention throughout the United States of America, its territories and dependencies, and all other countries. This includes an assignment of all Letters Patent that may be granted on the invention in the United States of America and all countries throughout the world, and any divisional, renewal, continuation in whole or in part, substitution, conversion, reexamination, reissue, prolongation or extension thereof; and

the right to claim priority from the patent application as provided for by United States law, the Patent Cooperation Treaty, the European Patent Convention, the Paris Convention, or other applicable law.

We authorize and request the issuance of said Letters Patent to THE GOVERNMENT, as assignee of the entire right, title, and interest to be held as fully and entirely as the same would have been held by us had this assignment not been made.

We warrant that there are no outstanding assignments, grants, liens, encumbrances, or agreements either written, oral, or implied that will impair, diminish, limit, or abridge the interest herein conveyed at the time of the execution of the present assignment.

We also agree upon reasonable request to communicate to THE GOVERNMENT, its representatives, assigns or agents, any facts known to us respecting the invention, and to testify in any legal proceeding, sign all lawful papers, execute all divisional, continuing and reissue applications, make all rightful oaths, provide all requested documents, and do everything reasonably possible to aid THE GOVERNMENT and its assigns to obtain and enforce proper patent protection for the invention in the United States or any foreign country. These provisions are binding upon our heirs, legal representatives, administrators and assigns.

We have authorized THE GOVERNMENT to file and prosecute this patent application, as well as any corresponding international or national applications that claim priority from it. THE GOVERNMENT has the right to select attorneys or agents of its choice to prosecute at its discretion these applications on its behalf.

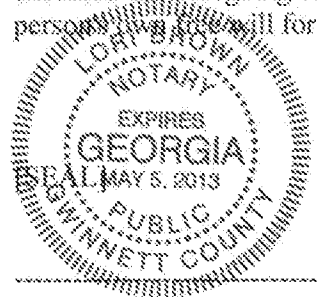
We grant THE GOVERNMENT, the power to insert on this Assignment any further information that may be necessary or desirable in order to comply with all applicable legal requirements, including the rules of the United States Patent and Trademark Office, for submitting and recording this document.

IN TESTIMONY WHEREOF, Assignors have signed their names on the dates indicated.

Dated: August 9, 2012  
STATE OF Georgia )  
COUNTY OF DeKalb ) ss.

[Signature]  
Vera A. SEMENOVA

This 9 day of August, 2012, before me personally came the above-named Vera A. Semenova, who executed the foregoing Assignment in my presence, and who acknowledged to me that it was executed under that person's free will for the purposes set forth therein.



[Signature]  
Notary Public for Winnett  
My commission expires: May 5, 2013

ASSIGNMENT

we, Vera A. Semenova, of 1507 Candleberry Court; Lilburn, Georgia 30047; UNITED STATES OF AMERICA, a citizen of the United States of America; and Conrad P. Quinn of 1662 Morning Crest Lane; Lilburn, Georgia 30047; UNITED STATES OF AMERICA, a citizen of the United Kingdom; and Jan Pohl, of 435 Bentley Place; Tucker, Georgia 30084; UNITED STATES OF AMERICA, a citizen of the United States of America; and Pavel Svoboda, of 1423 N. Crossing Dr. NE; Atlanta, Georgia 30329; UNITED STATES OF AMERICA, a citizen of the Czech Republic have invented SEROLOGIC CORRELATES OF PROTECTION AGAINST BACILLIS ANTHRACIS INFECTION. This is an Assignment of the following rights, title and interest: (check all that apply):

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The Government of the United States of America as represented by the Secretary of the Department of Health and Human Services, Centers for Disease Control and Prevention (hereinafter THE GOVERNMENT), and successors and assigns, our full and exclusive right, title, and interest in the patent application and invention throughout the United States of America, its territories and dependencies, and all other countries. This includes an assignment of all Letters Patent that may be granted on the invention in the United States of America and all countries throughout the world, and any divisional, renewal, continuation in whole or in part, substitution, conversion, reexamination, reissue, prolongation or extension thereof; and

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IN TESTIMONY WHEREOF, Assignors have signed their names on the dates indicated.

Dated: \_\_\_\_\_

STATE OF \_\_\_\_\_ ) Vera A. SEMENOVA

) ss.

COUNTY OF \_\_\_\_\_ )

This \_\_\_\_ day of \_\_\_\_\_, 2012, before me personally came the above-named Vera A. Semenova, who executed the foregoing Assignment in my presence, and who acknowledged to me that it was executed under that person's own free will for the purposes set forth therein.

\_\_\_\_\_  
Notary Public for \_\_\_\_\_

[SEAL]

My commission expires: \_\_\_\_\_

Dated: \_\_\_\_\_  
STATE OF \_\_\_\_\_ )  
  ) ss.  
COUNTY OF \_\_\_\_\_ )

Conrad P. QUINN

This \_\_\_\_\_ day of \_\_\_\_\_ 2012, before me personally came the above-named Conrad P. Quinn who executed the foregoing Assignment in my presence, and who acknowledged to me that it was executed under that person's own free will for the purposes set forth therein.

Notary Public for \_\_\_\_\_

[SEAL] My commission expires: \_\_\_\_\_

Dated: 8-21-2012  
STATE OF Georgia )  
  ) ss.  
COUNTY OF DeKalb )

[Signature]  
Jan POHL

This 21 day of August 2012, before me personally came the above-named Jan Pohl, who executed the foregoing Assignment in my presence, and who acknowledged to me that it was executed under that person's own free will for the purposes set forth therein.

[Signature]  
Notary Public for CDC FCU

[SEAL] My commission expires: 2-22-2013



Dated: 8-21-2012  
STATE OF Georgia )  
  ) ss.  
COUNTY OF DeKalb )

[Signature]  
Pavel SVOBODA

This 21 day of August 2012, before me personally came the above-named Pavel Svoboda, who executed the foregoing Assignment in my presence, and who acknowledged to me that it was executed under that person's own free will for the purposes set forth therein.

[Signature]  
Notary Public for CDC FCU

[SEAL] My commission expires: 2-22-2013



ASSIGNMENT

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The Government of the United States of America as represented by the Secretary of the Department of Health and Human Services, Centers for Disease Control and Prevention (hereinafter THE GOVERNMENT), and successors and assigns, our full and exclusive right, title, and interest in the patent application and invention throughout the United States of America, its territories and dependencies, and all other countries. This includes an assignment of all Letters Patent that may be granted on the invention in the United States of America and all countries throughout the world, and any divisional, renewal, continuation in whole or in part, substitution, conversion, reexamination, reissue, prolongation or extension thereof; and



the right to claim priority from the patent application as provided for by United States law, the Patent Cooperation Treaty, the European Patent Convention, the Paris Convention, or other applicable law.

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IN TESTIMONY WHEREOF, Assignors have signed their names on the dates indicated.

Dated: \_\_\_\_\_

STATE OF \_\_\_\_\_ )  
   ) ss.  
COUNTY OF \_\_\_\_\_ )

\_\_\_\_\_ Vera A. SEMENOVA

This \_\_\_\_ day of \_\_\_\_\_ 2012, before me personally came the above-named Vera A. Semenova, who executed the foregoing Assignment in my presence, and who acknowledged to me that it was executed under that person's own free will for the purposes set forth therein.

Notary Public for \_\_\_\_\_

[SEAL]

My commission expires: \_\_\_\_\_

Dated: 9-13-2012

Conrad P. Quinn

STATE OF GA. )  
COUNTY OF DeKalb. ) ss.

Conrad P. QUINN

This 13 day of September 2012, before me personally came the above-named Conrad P. Quinn who executed the foregoing Assignment in my presence, and who acknowledged to me that it was executed under that person's own free will for the purposes set forth therein.



Lori Brown  
Notary Public for Gwinnett

My commission expires: May 5, 2013

Dated: \_\_\_\_\_  
STATE OF \_\_\_\_\_ )  
COUNTY OF \_\_\_\_\_ ) ss.

Jan POHL

This \_\_\_\_\_ day of \_\_\_\_\_ 2012, before me personally came the above-named Jan Pohl, who executed the foregoing Assignment in my presence, and who acknowledged to me that it was executed under that person's own free will for the purposes set forth therein.

Notary Public for \_\_\_\_\_

[SEAL]

My commission expires: \_\_\_\_\_

Dated: \_\_\_\_\_  
STATE OF \_\_\_\_\_ )  
COUNTY OF \_\_\_\_\_ ) ss.

Pavel SVOBODA

This \_\_\_\_\_ day of \_\_\_\_\_ 2012, before me personally came the above-named Pavel Svoboda, who executed the foregoing Assignment in my presence, and who acknowledged to me that it was executed under that person's own free will for the purposes set forth therein.

Notary Public for \_\_\_\_\_

[SEAL]

My commission expires: \_\_\_\_\_