

## PATENT ASSIGNMENT COVER SHEET

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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>CLIFFORD CHARLES SHONE</td> <td>02/07/2003</td> </tr> <tr> <td>CONRAD PADRAIG QUINN</td> <td>01/21/2003</td> </tr> <tr> <td>KEITH ALAN FOSTER</td> <td>02/07/2003</td> </tr> <tr> <td>JOHN CHADDOCK</td> <td>02/07/2003</td> </tr> <tr> <td>PHILIP MARKS</td> <td>02/07/2003</td> </tr> <tr> <td>J. MARK SUTTON</td> <td>02/07/2003</td> </tr> <tr> <td>PATRICK STANCOMBE</td> <td>02/06/2003</td> </tr> <tr> <td>JONATHAN WAYNE</td> <td>02/06/2003</td> </tr> </tbody> </table> |  | Name          | Execution Date | CLIFFORD CHARLES SHONE | 02/07/2003 | CONRAD PADRAIG QUINN | 01/21/2003 | KEITH ALAN FOSTER | 02/07/2003 | JOHN CHADDOCK | 02/07/2003 | PHILIP MARKS | 02/07/2003 | J. MARK SUTTON | 02/07/2003 | PATRICK STANCOMBE | 02/06/2003 | JONATHAN WAYNE | 02/06/2003 |
| Name  | Execution Date                         |               |                |                        |            |                      |            |                   |            |               |            |              |            |                |            |                   |            |                |            |
| CLIFFORD CHARLES SHONE  | 02/07/2003                             |               |                |                        |            |                      |            |                   |            |               |            |              |            |                |            |                   |            |                |            |
| CONRAD PADRAIG QUINN  | 01/21/2003                             |               |                |                        |            |                      |            |                   |            |               |            |              |            |                |            |                   |            |                |            |
| KEITH ALAN FOSTER   | 02/07/2003                             |               |                |                        |            |                      |            |                   |            |               |            |              |            |                |            |                   |            |                |            |
| JOHN CHADDOCK   | 02/07/2003                             |               |                |                        |            |                      |            |                   |            |               |            |              |            |                |            |                   |            |                |            |
| PHILIP MARKS  | 02/07/2003                             |               |                |                        |            |                      |            |                   |            |               |            |              |            |                |            |                   |            |                |            |
| J. MARK SUTTON  | 02/07/2003                             |               |                |                        |            |                      |            |                   |            |               |            |              |            |                |            |                   |            |                |            |
| PATRICK STANCOMBE   | 02/06/2003                             |               |                |                        |            |                      |            |                   |            |               |            |              |            |                |            |                   |            |                |            |
| JONATHAN WAYNE  | 02/06/2003                             |               |                |                        |            |                      |            |                   |            |               |            |              |            |                |            |                   |            |                |            |
| RECEIVING PARTY DATA  |  |               |                |                        |            |                      |            |                   |            |               |            |              |            |                |            |                   |            |                |            |
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| State/Country:  | UNITED KINGDOM                         |               |                |                        |            |                      |            |                   |            |               |            |              |            |                |            |                   |            |                |            |
| Postal Code:  | SP4 0JG                                |               |                |                        |            |                      |            |                   |            |               |            |              |            |                |            |                   |            |                |            |
| PROPERTY NUMBERS Total: 1   |  |               |                |                        |            |                      |            |                   |            |               |            |              |            |                |            |                   |            |                |            |
| <table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Patent Number:</td> <td>8454976</td> </tr> </tbody> </table>   |  | Property Type | Number         | Patent Number:         | 8454976    |                      |            |                   |            |               |            |              |            |                |            |                   |            |                |            |
| Property Type   | Number                                 |               |                |                        |            |                      |            |                   |            |               |            |              |            |                |            |                   |            |                |            |
| Patent Number:  | 8454976                                |               |                |                        |            |                      |            |                   |            |               |            |              |            |                |            |                   |            |                |            |
| CORRESPONDENCE DATA   |  |               |                |                        |            |                      |            |                   |            |               |            |              |            |                |            |                   |            |                |            |
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CH \$40.00 8454976

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|--|--------------------------|
| ATTORNEY DOCKET NUMBER:  | 23038/92185              |
| NAME OF SUBMITTER:   | CHRISTOPHER W. RAIMUND   |
| Signature:   | /Christopher W. Raimund/ |
| Date:  | 11/19/2013               |
| Total Attachments: 4<br>source=US10,241,596 Assignments#page1.tif<br>source=US10,241,596 Assignments#page2.tif<br>source=US10,241,596 Assignments#page3.tif<br>source=US10,241,596 Assignments#page4.tif |                          |

## ASSIGNMENT

In consideration of the sum of One Dollar (\$1.00) or equivalent and other good and valuable consideration paid to each of the undersigned inventor(s): Clifford Charles Shone, Conrad Pdraig Quinn, Keith Alan Foster, John Chaddock, Philip Marks, J. Mark Sutton, Patrick Stancombe, and Jonathan Wayne, the undersigned inventor(s) hereby sell(s) and assign(s) to Microbiological Research Authority, CAMR, Porton Down, Salisbury, Wiltshire, SP4 0JG, Great Britain and The Speywood Laboratory Limited, 14 Kensington Square, London W8 5HH, Great Britain (the Assignee) his/her entire right, title and interest, including the right to sue for past infringement and to collect for all past, present and future damages:

*check applicable box(es)*  for the United States of America (as defined in 35 U.S.C. § 100),  
 and throughout the world,

(a) in the invention(s) known as Recombinant Toxin Fragments for which application(s) for patent in the United States of America has (have) been executed by the undersigned on 21 January 2003 and 6 and 7 February 2003 (also known as United States Application No. US107241,596, filed 12 September 2002), in any and all applications thereon, in any and all Letters Patent(s) therefor, and

(b) in any and all applications that claim the benefit of the patent application listed above in part (a), including continuing applications, reissues, extensions, renewals and reexaminations of the patent application or Letters Patent therefor listed above in part (a), to the full extent of the term or terms for which Letters Patents issue, and

(c) in any and all inventions described in the patent application listed above in part (a), and in any and all forms of intellectual and industrial property protection derivable from such patent application, and that are derivable from any and all continuing applications, reissues, extensions, renewals and reexaminations of such patent application, including, without limitation, patents, applications, utility models, inventor's certificates, and designs together with the right to file applications therefor; and including the right to claim the same priority rights from any previously filed applications under the International Agreement for the Protection of Industrial Property, or any other international agreement, or the domestic laws of the country in which any such application is filed, as may be applicable;

all such rights, title and interest to be held and enjoyed by the above-named Assignee, its successors, legal representatives and assigns to the same extent as all such rights, title and interest would have been held and enjoyed by the Assignor had this assignment and sale not been made.

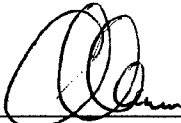
The undersigned inventor(s) agree(s) to execute all papers necessary in connection with the application(s) and any continuing (continuation, divisional, or continuation-in-part), reissue, reexamination or corresponding application(s) thereof and also to execute separate assignments in connection with such application(s) as the Assignee may deem necessary or expedient.

The undersigned inventor(s) agree(s) to execute all papers necessary in connection with any interference or patent enforcement action (judicial or otherwise) related to the application(s) or any continuing (continuation, divisional, or continuation-in-part), reissue or reexamination application(s) thereof and to cooperate with the Assignee in every way possible in obtaining evidence and going forward with such interference or patent enforcement action.

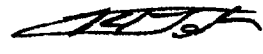
The undersigned inventor(s) hereby represent(s) that he/she has full right to convey the entire interest herein assigned, and that he/she has not executed, and will not execute, any agreement in conflict therewith.


The undersigned inventor(s) hereby grant(s) Robert Greene Sterne, Esquire, Registration No. 28,912; Edward J. Kessler, Esquire, Registration No. 25,688; Jorge A. Goldstein, Esquire, Registration No. 29,021; Samuel L. Fox, Esquire, Registration No. 30,353; David K.S. Cornwell, Esquire, Registration No. 31,944; Robert W. Esmond, Esquire, Registration No. 32,893; Tracy-Gene G. Durkin, Esquire, Registration No. 32,831; Michele A. Cimbala, Esquire, Registration No. 33,851; Michael B. Ray, Esquire, Registration No. 33,997; Robert E. Sokohl, Esquire, Registration No. 36,013; Eric K. Steffe, Esquire, Registration No. 36,688; Michael Q. Lee, Esquire, Registration No. 35,239; Steven R. Ludwig, Esquire, Registration No. 36,203; Raz E. Fleshner, Esquire, Registration No. 34,331; John M. Covert, Esquire, Registration No. 38,759; and Linda E. Alcorn, Esquire, Registration No. 39,588; all of STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C., 1100 New York Avenue, N.W., Suite 600, Washington, D.C. 20005-3934, power to insert in this assignment any further identification that may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

IN WITNESS WHEREOF, executed by the undersigned inventor(s) on the date opposite his/her name.

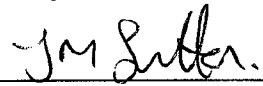
Date: 7 February 2003 (7/2/03) Signature of Inventor:   
Clifford Charles Shone

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Conrad Padraig Quinn

Date: 7 February 2003 (7/2/03) Signature of Inventor:   
Keith Alan Foster

Date: 7 February 2003 (7/2/03) Signature of Inventor:   
John Chaddock

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Philip Marks

Date: 7 February 2003 (7/02/03) Signature of Inventor:   
J. Mark Sutton

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Patrick Stancombe

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Jonathan Wayne

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(c) in any and all inventions described in the patent application listed above in part (a), and in any and all forms of intellectual and industrial property protection derivable from such patent application, and that are derivable from any and all continuing applications, reissues, extensions, renewals and reexaminations of such patent application, including, without limitation, patents, applications, utility models, inventor's certificates, and designs together with the right to file applications therefor, and including the right to claim the same priority rights from any previously filed applications under the International Agreement for the Protection of Industrial Property, or any other international agreement, or the domestic laws of the country in which any such application is filed, as may be applicable;

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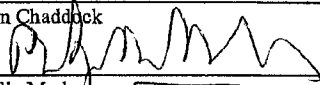
IN WITNESS WHEREOF, executed by the undersigned inventor(s) on the date opposite his/her name.

Date: \_\_\_\_\_ Signature of Inventor: \_\_\_\_\_  
Clifford Charles Shone


Date: 2/1/03 Signature of Inventor:   
Conrad Padraig Quinn

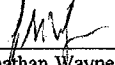
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