

## PATENT ASSIGNMENT

Electronic Version v1.1

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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>Frederick Quinn</td> <td>05/02/2007</td> </tr> <tr> <td>Candace McCombs</td> <td>05/02/2007</td> </tr> <tr> <td>Russell K. Karls</td> <td>01/06/2010</td> </tr> </tbody> </table>	Name	Execution Date	Frederick Quinn	05/02/2007	Candace McCombs	05/02/2007	Russell K. Karls	01/06/2010	
Name	Execution Date								
Frederick Quinn	05/02/2007								
Candace McCombs	05/02/2007								
Russell K. Karls	01/06/2010								
RECEIVING PARTY DATA									
Name:	University of Georgia Research Foundation, Inc.								
Street Address:	Boyd Graduate Studies Research Center								
City:	Athens								
State/Country:	GEORGIA								
Postal Code:	30602-7411								
PROPERTY NUMBERS Total: 1									
Property Type	Number								
Application Number:	13435484								
CORRESPONDENCE DATA									
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ATTORNEY DOCKET NUMBER:	235.00770102								
NAME OF SUBMITTER:	Nancy A. Johnson								
Total Attachments: 3 source=235assign#page1.tif source=235assign#page2.tif source=235assign#page3.tif									

CH \$40.00 13435484

## ASSIGNMENT

Whereas We, Frederick QUINN and Candace MCCOMBS, with residences and citizenships as indicated below; have made an invention in

## MICROBIAL VACCINE AND VACCINE VECTOR

International Application No. PCT/US2006/046832, filed 8 December 2006

U.S. Provisional Patent Application No. 60/781,303, filed 10 March 2006

U.S. Provisional Patent Application No. 60/749,140, filed 9 December 2005

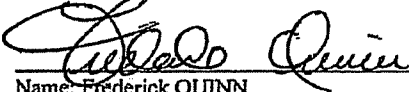
and executed an application for Letters Patent of the United States of America based thereon;

Now, therefore, for good and valuable consideration, receipt of which is acknowledged, we have individually and jointly agreed to assign and transfer and do hereby assign and transfer unto University of Georgia Research Foundation, Inc. ("Company"), a corporation of Georgia, having its principal office at University of Georgia Research Foundation, Inc., Boyd Graduate Studies Research Center, Athens, GA 30602-7411, its successors and assigns, the entire right, title, and interest in and to said invention and application, and in and to any division or continuation (in whole or in part) of said application, and in and to any and all improvements in said invention made by us or any of us or made jointly with others (provided any such improvement is made during, or within one year after the termination of, the employment by the Company of whichever of us, solely or jointly with one or more others, has made the same), and in and to any and all Letters Patent, reexaminations, reissues, or extensions thereof, of the United States of America and countries foreign thereto (including the right to apply for Letters Patent, Utility Models, or Inventors' Certificates in foreign countries in its own name and to claim any priority rights for such foreign applications to which such applications are entitled under international conventions, treaties, or otherwise), which have been or may be granted thereon or on any divisional, continuation (in whole or in part), renewal, reexamination, reissue, or other or further application based in whole or in part upon said invention or improvements thereon, to be held and enjoyed as fully and exclusively as they would have been by us or any of us had this assignment and transfer not been made;

We do further agree for ourselves and for our heirs, executors, and administrators, to execute and deliver without further consideration any further applications, assignments, and documents, and to perform such other acts as we lawfully may, that may be deemed necessary by the Company, its successors, assigns, and nominees, fully to secure its right, title, and interest as aforesaid and to obtain or maintain Letters Patent, Utility Models, or Inventors' Certificates in any and all countries;

And we do hereby authorize and request the Commissioner of Patents to issue any and all Letters Patent which may be granted upon any of said applications, to University of Georgia Research Foundation, Inc. as the assignee of the entire right, title, and interest therein.

In witness whereof, we have hereunto signed our names on the days and years set forth below.



Name: Frederick QUINN

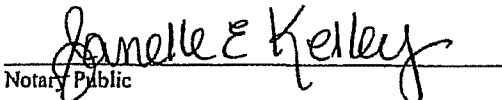
Date

Address: 3243 Wiltshire Drive, Avondale Estates, Georgia 30002, United States of America

Citizenship: United States of America

STATE OF Georgia )  
COUNTY OF Attns-Clarke ) ss.

On this 2nd day of May 2007, before me personally appeared Frederick QUINN, to me known to be the person described in and who executed the foregoing instrument, and he/she executed the same for the uses and purposes therein set forth.

  
Notary Public

MY COMMISSION EXPIRES  
AUGUST 2, 2010

Assignment

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International Application No. PCT/US2006/046832

Filed: 8 December 2006

For: MICROBIAL VACCINE AND VACCINE VECTOR

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Candace MCOMBS

5-2-07

Name: Candace MCCOMBS

Date

Address: 155 Pebble Creek Drive, Athens, Georgia 30605, United States of America

Citizenship: United States of America

STATE OF Georgia )  
COUNTY OF Athens-Clarke ) ss.

On this 2nd day of May 2007, before me personally appeared Candace MCCOMBS, to me known to be the person described in and who executed the foregoing instrument, and he/she executed the same for the uses and purposes therein set forth.

Janell E. Kelley  
Notary Public

MY COMMISSION EXPIRES  
AUGUST 2, 2010

## ASSIGNMENT

Whereas I, **RUSSELL K. KARLS**, with residence and citizenship as indicated below; have made an invention in

**MICROBIAL VACCINE AND VACCINE VECTOR**

Filed: May 27, 2008

Serial No.: 12/095,035

and executed an application for Letters Patent of the United States of America based thereon;

Now, therefore, for good and valuable consideration, receipt of which is acknowledged, I have agreed to assign and transfer and do hereby assign and transfer unto **UNIVERSITY OF GEORGIA RESEARCH FOUNDATION, INC.** ("Company"), a corporation of **GEORGIA**, having its principal office at **BOYD GRADUATE STUDIES RESEARCH CENTER, ATHENS, GA. 30602-7411**, its successors and assigns, my entire right, title, and interest in and to said invention and application, and in and to any division or continuation (in whole or in part) of said application, and in and to any and all improvements in said invention made by me or made jointly with others (provided any such improvement is made during, or within one year after the termination of, my employment by the Company), and in and to any and all Letters Patent, reexaminations, reissues, or extensions thereof, of the United States of America and countries foreign thereto (including the right to apply for Letters Patent, Utility Models, or Inventors' Certificates in foreign countries in its own name and to claim any priority rights for such foreign applications to which such applications are entitled under international conventions, treaties, or otherwise), which have been or may be granted thereon or on any divisional, continuation (in whole or in part), renewal, reexamination, reissue, or other or further application based in whole or in part upon said invention or improvements thereon, to be held and enjoyed as fully and exclusively as they would have been by me had this assignment and transfer not been made;

I do further agree for myself and for my heirs, executors, and administrators, to execute and deliver without further consideration any further applications, assignments, and documents, and to perform such other acts as I lawfully may, that may be deemed necessary by the Company, its successors, assigns, and nominees, fully to secure its right, title, and interest as aforesaid and to obtain or maintain Letters Patent, Utility Models, or Inventors' Certificates in any and all countries;

And I do hereby authorize and request the Commissioner of Patents to issue any and all Letters Patent which may be granted upon any of said applications, to **UNIVERSITY OF GEORGIA RESEARCH FOUNDATION, INC.** as the assignee of the entire right, title, and interest therein.

In witness whereof, I have hereunto signed my name on the day and year set forth below.

Russell K. Karls  
 Name: Russell K. Karls  
 Address: 150 Pine Tops Drive, Athens, GA. 30606  
 Citizenship: USA

1-6-10  
 Date

STATE OF Georgia )  
 ) ss.  
 COUNTY OF U.S. )

On this 6 day of January 20 10, before me personally appeared **RUSSELL K. KARLS**, to me known to be the person described in and who executed the foregoing instrument, and he/she executed the same for the uses and purposes therein set forth.

Janell E. Kerley  
 Notary Public  
 MY COMMISSION EXPIRES  
 AUGUST 2, 2010