

## 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>Jesus G. Valenzuela</td> <td>06/02/2004</td> </tr> <tr> <td>Yasmine Belkaid</td> <td>08/27/2004</td> </tr> <tr> <td>Shaden Kamhawi</td> <td>06/02/2004</td> </tr> <tr> <td>David Sacks</td> <td>06/07/2004</td> </tr> <tr> <td>Jose M.C. Ribeiro</td> <td>06/24/2004</td> </tr> </tbody> </table>		Name	Execution Date	Jesus G. Valenzuela	06/02/2004	Yasmine Belkaid	08/27/2004	Shaden Kamhawi	06/02/2004	David Sacks	06/07/2004	Jose M.C. Ribeiro	06/24/2004
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<table border="1"> <tr> <td>Name:</td> <td>The Government of the United States of America as represented by the Secretary of the Department of Health and Human Services</td> </tr> <tr> <td>Street Address:</td> <td>6011 Executive Boulevard, Suite 325, MSC 7660</td> </tr> <tr> <td>Internal Address:</td> <td>Office of Technology Transfer, National Institutes of Health</td> </tr> <tr> <td>City:</td> <td>Bethesda</td> </tr> <tr> <td>State/Country:</td> <td>MARYLAND</td> </tr> <tr> <td>Postal Code:</td> <td>20852</td> </tr> </table>		Name:	The Government of the United States of America as represented by the Secretary of the Department of Health and Human Services	Street Address:	6011 Executive Boulevard, Suite 325, MSC 7660	Internal Address:	Office of Technology Transfer, National Institutes of Health	City:	Bethesda	State/Country:	MARYLAND	Postal Code:	20852
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CORRESPONDENCE DATA													
<p>Fax Number: 5035955301  <i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i></p> <p>Phone: 503-595-5300        Email: gina.horton@klarquist.com        Correspondent Name: Jodi L. Connolly, Klarquist Sparkman LLP        Address Line 1: 121 SW Salmon St., Ste. 1600        Address Line 2: One World Trade Center        Address Line 4: Portland, OREGON 97204-2988</p>													
ATTORNEY DOCKET NUMBER:	4239-67347-04												

CH \$40.00 13711167

NAME OF SUBMITTER:

Jodi L. Connolly

Total Attachments: 6

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## ASSIGNMENT

We, Jesus G. Valenzuela, of Rockville, Maryland, a citizen of the United States of America, Yasmine Belkaid, of Norwood, Ohio, a citizen of France, Shaden Kamhawi, of Rockville, Maryland, a citizen of Jordan, David Sacks, of Silver Spring, Maryland, a citizen of the United States of America, and José M.C. Ribeiro, of Rockville, Maryland, a citizen of the United States of America, have invented a certain invention entitled ANTI-ARTHROPOD VECTOR VACCINES, METHODS OF SELECTING AND USES THEREOF for which the following patent applications have been filed:

U.S. Provisional Patent Application No. 60/299,391, filed on June 19, 2001;  
PCT Application No. PCT/US02/19663 filed on June 18, 2002; and  
U.S. Application No. 10/481,180 filed on December 17, 2003;

all of which applications are collectively referred to herein as "the patent applications."

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, we the undersigned, have sold, assigned, and transferred and do 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 (hereinafter THE GOVERNMENT), and successors and assigns, the full and exclusive right, title, and interest in the patent applications 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, reissue, prolongation or extension thereof; and the right to claim priority from the patent applications 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 testify in any legal proceedings, 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 the patent applications, as well as any corresponding international or national applications that claim priority from them. THE GOVERNMENT has the right to select attorneys or agents of its choice to prosecute at its discretion the patent applications on its behalf.

We grant the law firm of Klarquist Sparkman, LLP, 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:

06/02/2004

  
\_\_\_\_\_  
Jesus G. Valenzuela

STATE OF

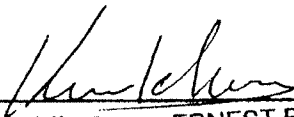
MARYLAND

) ss.

COUNTY OF

Harford

This 2<sup>nd</sup> day of June, 2004, before me personally came the above-named Jesus G. Valenzuela, 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

ERNEST B. KUITCHOA

My commission expires

Notary Public, State of Maryland  
My Commission Expires June 14, 2006

06/02/04

[SEAL]

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

\_\_\_\_\_  
Yasmine Belkaid

STATE OF \_\_\_\_\_

) ss.

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

This \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_, before me personally came the above-named Yasmine Belkaid, 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 \_\_\_\_\_

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

[SEAL]

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

\_\_\_\_\_  
Jesus G. Valenzuela

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

This \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_, before me personally came the above-named Jesus G. Valenzuela, 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 \_\_\_\_\_  
My commission expires: \_\_\_\_\_

[SEAL]

Dated: 6/27/04

\_\_\_\_\_  
Yasmine Belkaid

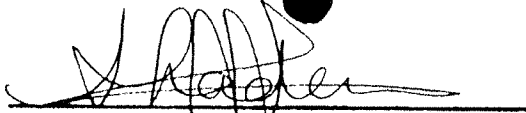
STATE OF OH )  
 ) ss. 215 470681  
COUNTY OF USA )

This 27 day of August, 2004, before me personally came the above-named Yasmine Belkaid, 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 09/2007  
My commission expires: \_\_\_\_\_

[SEAL]

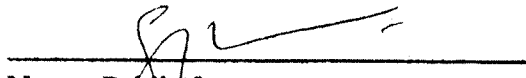
Dated: June 2<sup>nd</sup>, 2004

  
Shaden Kamhawi

STATE OF Maryland )  
 ) ss.  
COUNTY OF Prince George's

This 2<sup>nd</sup> day of June, 2004, before me personally came the above-named Shaden Kamhawi, 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.

[SEAL]

  
Notary Public for GITA C. SHAH  
My commission expires REPUBLIC STATE OF MARYLAND  
My Commission Expires July 24, 2004

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

David Sacks

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

This \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_, before me personally came the above-named David Sacks, 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.

[SEAL]

\_\_\_\_\_  
Notary Public for \_\_\_\_\_  
My commission expires: \_\_\_\_\_

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

José M.C. Ribeiro

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

This \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_, before me personally came the above-named José M.C. Ribeiro, 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 \_\_\_\_\_  
My commission expires: \_\_\_\_\_

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

Shaden Kamhawi

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

This \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_, before me personally came the above-named Shaden Kamhawi, 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 \_\_\_\_\_  
My commission expires: \_\_\_\_\_

[SEAL]

Dated: 06/07/04

David Sacks

David Sacks

STATE OF MARYLAND )  
 ) ss.  
COUNTY OF MONTGOMERY

This 07 day of JUNE, 2004, before me personally came the above-named David Sacks, 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.

Musa V. Seif  
Notary Public for MD  
My commission expires: \_\_\_\_\_

[SEAL]

This Commission  
Expires 8/15/05

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

José M.C. Ribeiro

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

This \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_, before me personally came the above-named José M.C. Ribeiro, 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 \_\_\_\_\_  
My commission expires: \_\_\_\_\_

[SEAL]

JMCR

Dated: \_\_\_\_\_  
Shaden Kamhawi

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

This \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_, before me personally came the above-named Shaden Kamhawi, 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.

[SEAL]

\_\_\_\_\_  
Notary Public for \_\_\_\_\_  
My commission expires: \_\_\_\_\_

Dated: \_\_\_\_\_  
David Sacks

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

This \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_, before me personally came the above-named David Sacks, 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.

[SEAL]

\_\_\_\_\_  
Notary Public for \_\_\_\_\_  
My commission expires: \_\_\_\_\_

Dated: 6/24/2004  
\_\_\_\_\_  
José M.C. Ribeiro

STATE OF MD )  
 ) ss.  
COUNTY OF Montgomery )

This 24 day of June, 2004, before me personally came the above-named José M.C. Ribeiro, 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.

[SEAL]

Ernest B. Kuitchova  
\_\_\_\_\_  
Notary Public for \_\_\_\_\_  
My commission expires: \_\_\_\_\_  
Notary Public, State of Maryland  
My Commission Expires June 14, 2008