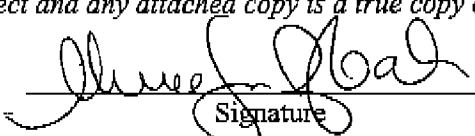


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Atty. Ref. No. 6395-66741-01

RECORDATION FORM COVER SHEET – PATENTS ONLY	
VIA FACSIMILE (703) 306-5995 DIRECTOR OF PATENTS AND TRADEMARKS P.O. BOX 1450 ALEXANDRIA, VA 22313-1450	
1. Total number of pages including cover sheet, attachments and document: 5	
2. Name of Conveying Party(ies) and Execution Date(s) of Document(s) <input type="checkbox"/> Check here if additional name(s) attached Name(s): Thomas W. Hodge, Michael W. Shaw, and Anthony Sanchez Execution Date(s): May 5, 2004	
3. Name and address of receiving party <input type="checkbox"/> Check here if additional name(s) & address(es) are attached 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 Address Technology Transfer Office 4770 Buford Hwy (K79) City Atlanta State/Country GA Zip 30341	
4. Nature of Conveyance <input checked="" type="checkbox"/> Assignment <input type="checkbox"/> Merger <input type="checkbox"/> Security Agreement <input type="checkbox"/> Name Change <input type="checkbox"/> Other:	
5. Total number of applications and patents involved: 3	
6. Total Fee Authorized to be charged to deposit account 02-4550 (37 C.F.R. § 3.41): \$120.00	
7. <input checked="" type="checkbox"/> Check here if any deficiency/overpayment is authorized to be charged to deposit account 02-4550	
8. Enter either the Execution date (of the Declaration and Power of Attorney), Application Number, or the Patent Number. Do not enter more than one number for the same patent. A. <input type="checkbox"/> This document is being filed with a new application. Execution date is: _____ B. <input checked="" type="checkbox"/> Patent Application No.(s) or Patent No.(s): <u>60/427,464, 60/482,604, and PCT/US03/37143</u> <input type="checkbox"/> Check here if additional numbers are attached	
9. Correspondent's name, address, and telephone number Sheree Lynn Rybak, Ph.D. Klarquist Sparkman, LLP One World Trade Center, Suite 1600 121 S.W. Salmon Street Portland, Oregon 97204-2988 Telephone: 503-226-7391 Facsimile: 503-228-9446	
10. <input type="checkbox"/> Please return the attached postcard to confirm that these items have been received.	
11. Statement and signature <i>To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.</i> <div style="display: flex; justify-content: space-between; align-items: flex-end; margin-top: 20px;"> <div style="width: 30%;"> Sheree Lynn Rybak, Ph.D. Name of Person Signing </div> <div style="width: 30%; text-align: center;">  Signature </div> <div style="width: 30%; text-align: right;"> May 11, 2004 Date </div> </div>	

CH \$120.00 024550 60427464

 cc: Client
 Docketing
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 PATENT
 REEL: 014616 FRAME: 0444

WDN/SLR:unt 6395-66741 1-009-02 04/22/04

ASSIGNMENT

We, Thomas W. Hodge, of 9115 Twelevestones Dr., Roswell, Georgia 30076, a citizen of the United States of America and Michael W. Shaw, of 2614 Willow Cove, Decatur, Georgia 30033-2200, a citizen of the United States of America, and Anthony Sanchez, of 1717 Red Fox Run, Lilburn, Georgia 30047, a citizen of the United States of America, employees of the Department of Health and Human Services at the time the invention was made, along with Natalie J. Morey, of 3138 Caldwell Rd. NE, Atlanta, Georgia 30319-2918, a citizen of the United States of America and Don Rubin, of 1129 Hardinghill Lane, Nashville, Tennessee 37215, a citizen of the United States of America have invented CELL LINES AND HOST NUCLEIC ACID SEQUENCES RELATED TO INFECTIOUS DISEASE for which the following patent applications have been filed:

U.S. Provisional Patent Application No. 60/427,464, filed on November 18, 2002;

U.S. Provisional Patent Application No. 60/482,604, filed on June 25, 2003;

PCT Application No. PCT/US03/37143 filed on 18 November 2003; and

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

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 our entire right, title, and interest in the invention, both in the United States and in other countries throughout the world.

The Government of the United States of America desires to acquire our domestic and foreign right, title, and interest in the aforesaid invention described in the aforesaid provisional patent application; and

In consideration of these obligations and other valuable considerations, 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, Centers for Disease Control and Prevention (hereinafter THE GOVERNMENT), and his successors, our full and exclusive right, title, and interest in the invention, patent application and patent rights throughout the United States of America, its territories and dependencies, and within each and every foreign country in which THE GOVERNMENT elects to file patent applications on the invention described in the aforesaid application, and all Letters Patents and Registrations which may be granted for corresponding non-provisional patent applications on the same in the United States of America and all countries throughout the world, and to claim the priority from the application as provided by United States law and the Paris Convention, or of any divisional, renewal, continuation in whole or in part, substitution, conversion, reissue, prolongation or extension thereof.

AND, we authorize and request issuance of said Letters Patent to THE GOVERNMENT as an assignee of our entire right, title, and interest in and to the same throughout the United States of America, its territories and dependencies, and within each and every foreign country in which THE GOVERNMENT elects to file, for the sole use for the full term or terms for which said Letters Patent and Registrations may be granted thereon, or of any division, renewal, continuation in whole or in part, substitution, conversion, reissue, prolongation or extension thereof which may be granted as fully and entirely as the same would have been held by us, had this assignment not been made;

ASSIGNMENT - Page 1 of 3

PATENT
REEL: 014616 FRAME: 0445

WDN/SLR:uml 6395-66741 1-009-02 04/22/04

AND, we warrant that there are no outstanding assignments, grants, liens, encumbrances, or agreements either written, oral, or implied with respect to the aforesaid provisional patent application or corresponding application for Letters Patent which will impair, diminish, limit, or abridge the interest herein conveyed at the time of the execution of this instrument by us;

AND, we agree to execute any and all applications for Letters Patent in the United States of America and foreign countries, and to furnish and deliver to the Secretary, Department of Health and Human Services, upon request, all data and documents, and to execute any papers which may be necessary for the prosecution of any application or applications of Letters Patent or for THE GOVERNMENT to exercise its rights granted hereunder, including communicating to THE GOVERNMENT, its representatives or agents, any facts relating to said invention, including evidence for interference purposes, or for other proceedings, whenever requested, to testify in any interference or other proceedings, whenever requested, and to execute and deliver on request all lawful papers required to make any of the foregoing provisions effective, and likewise make these provisions binding upon our heirs, legal representatives, administrators and assigns, and we shall assist THE GOVERNMENT in every way as may be requested in protecting said invention, provided that any expense of extending such assistance shall be paid by THE GOVERNMENT.

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

We grant the law firm of Klarquist Sparkman, LLP, the power to insert on this Assignment any further information which 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: 5-5-04

STATE OF GEORGIA)
COUNTY OF DEKALB) ss.

This 5 day of APRIL, 2004, before me personally came the above-named Thomas W. Hodge, 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]

Thomas W. Hodge

Notary Public for CDC FCU
My commission expires: 2-14-06

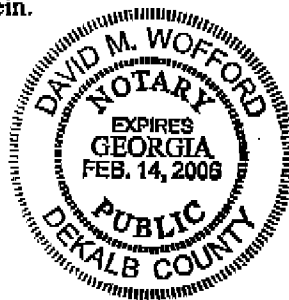
ASSIGNMENT - Page 2 of 3

PATENT
REEL: 014616 FRAME: 0446

WDN/SLR:aml 6395-66741 1-009-02 04/22/04

Dated: 5/5/04STATE OF Georgia
DeKalbCOUNTY OF DeKalb) ss.

This 5 day of April, 2004, before me personally came the above-named Michael W. Shaw, 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]

Michael W. Shaw
Michael W. Shaw

David M. Wofford
Notary Public for CDC FCU
My commission expires: 2-14-06

Dated: _____

STATE OF _____)

COUNTY OF _____) ss.

This ____ day of _____, 2004, before me personally came the above-named Anthony Sanchez, 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.

Anthony Sanchez

Notary Public for _____
My commission expires: _____

[SEAL]

WDN/SLR:amt 6395-66741 1-009-02 04/22/04

Dated: _____

Michael W. ShawSTATE OF _____)
) ss.
COUNTY OF _____)

This ____ day of _____, 2004, before me personally came the above-named Michael W. Shaw, 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: May 5 2004
STATE OF Georgia)
) ss.
COUNTY OF DeKalb)

This 5th day of May, 2004, before me personally came the above-named Anthony Sanchez, 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.

Anthony Sanchez

Notary Public for _____
My commission expires: Jan 9, 2006

[SEAL]



ASSIGNMENT - Page 3 of 3