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Attorney Docket No. 15280-341000US

FORM PTO-1595  
(Rev. 6-93)

101598507

U.S. Department of Commerce  
Patent and Trademark Office

To the Honorable Asst. Commissioner for Patents. Please record the attached original documents or copy thereof

1. Name of conveying party(ies):

- (a) Albert H. Kapikian  
(b) Robert M. Chanock  
(c) Yasutaka Hoshino

1011.01

Additional name(s) of conveying parties attached? ☐ Yes  
☒ No.

2. Name and address of receiving party(ies)

Name: THE GOVERNMENT OF THE UNITED STATES OF AMERICA, as represented by the Department of Health and Human Services

Internal Address:

Street Address: National Institutes of Health, 6011 Executive Boulevard, Suite 325

City: Rockville State: Maryland ZIP: 20852-3804

Additional names and addresses attached? ☐ Yes ☒ No

3. Nature of conveyance:

- ☒ Assignment ☐ Merger  
☐ Security Agreement ☐ Change of Name  
☐ Other:

Execution Date: (a) January 1, 2001; (b) January 2, 2001; (c) January 2, 2001

4. Application Number(s) or Patent Numbers.

If this document is being filed together with a new application, the execution date of the application is:

A. Patent Application No(s): 60/094,425 and PCT/US99/17036 B. Patent No(s):

Additional numbers attached? ☐ Yes ☒ No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: Brian W. Poor  
TOWNSEND AND TOWNSEND AND CREW LLP  
Two Embarcadero Center, 8<sup>th</sup> Floor  
San Francisco, California 94111-3834  
(415) 576-0200

6. Total number of applications and patents involved 2

7. Total fee (37 CFR 3.41): -----\$40.00

☐ Enclosed ☒ Charge Fees to Deposit Account☒ Charge any additional fees associated with this paper or during the pendency of this application, or credit any overpayment, to deposit account.

8. Deposit account number: 20-1430

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9. Statement and signature.

*To the best of my knowledge and belief, the foregoing is true and correct and any attached copy is a true of copy of the original document.*Brian W. Poor  
Name of Person Signing

  
Signature


  
Date

Atty. Reg. No. 32,928

Total number of pages including cover sheet, attachments and document 4

10. Change Correspondence Address to that of Part 5? ☐ Yes ☐ No

OMB No. 0651-0011 (exp. 4/94)

Mail documents to be recorded with required cover to:

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Asst. Commissioner for Patents  
Box: Assignments  
Washington, D.C. 20231

SE 5006303 v1

PATENT  
REEL: 011464 FRAME: 0573

## ASSIGNMENT OF PATENT APPLICATIONS

JOINT

WHEREAS, Albert H. Kapikian, of 11201 Marcliff Road, Rockville, MD 20892; Robert M. Chanock, of 7001 Longwood Drive, Bethesda, MD 20817; Yasutaka Hoshino, of 2111 Cambridge Park Court, Wheaton, MD 20902; hereinafter referred to as "Assignors," are the inventors of the invention described and set forth in the below-identified patent application:

Title of Invention:     MULTIVALENT HUMAN-BOVINE  
                              ROTAVIRUS VACCINE

Application Nos.:     U.S. Provisional Patent Application No.  
                              60/094,425, filed July 28, 1998, and  
                              International Application No. PCT/US99/17036,  
                              filed July 27, 1999; and

WHEREAS, THE GOVERNMENT OF THE UNITED STATES OF AMERICA, as represented by the Department of Health and Human Services, National Institutes of Health, located at 6011 Executive Boulevard, Suite 325, Rockville, MD, 20852-3804, hereinafter referred to as "ASSIGNEE," is desirous of acquiring an interest in the invention and application and in any U.S. Letters Patent and Registrations which may be granted on any patent application claiming priority from the same;

For good and valuable consideration, receipt of which is hereby acknowledged by Assignors, Assignors have assigned, and by these presents do assign to Assignee all right, title and interest in and to the invention and application and to all foreign counterparts (including patent, utility model and industrial designs), and in and to any Letters Patent and Registrations which may hereafter be granted on any patent application claiming priority from the same in the United States and all countries throughout the world, and to claim the priority from the application as provided by the Paris Convention. The right, title and interest is to be held and enjoyed by Assignee and Assignee's successors and assigns as fully and exclusively as it would have been held and enjoyed by Assignors had this Assignment not been made, for the full term of any Letters Patent and Registrations which may be granted thereon, or of any division, renewal, continuation in whole or in part, substitution, conversion, reissue, prolongation or extension thereof.

Assignors further agree that they will, without charge to Assignee, but at Assignee's expense, (a) cooperate with Assignee in the prosecution of U.S. Patent applications and foreign counterparts on the invention and any improvements, (b) execute, verify, acknowledge and deliver all such further papers, including applications and instruments of transfer, and (c) perform such other acts as Assignee lawfully may request to obtain or maintain Letters Patent and Registrations for the invention and improvements in any and all countries, and to vest title thereto in Assignee, or Assignee's successors and assigns.

Assignors hereby authorize and request Townsend and Townsend and Crew LLP, Two Embarcadero Center, 8<sup>th</sup> Floor, San Francisco, CA 94111-3834, to insert herein above the application number and filing date of said application when known.

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

Dated: 1/01/2001

Albert Z. Kapikian  
Albert ~~H.~~ Kapikian  
Z.  
(*in*)

STATE OF MARYLAND )  
 )  
COUNTY OF ) ss.

On 1/2/2001, before me, Albert Z. Kapikian, personally appeared Albert ~~H.~~ Kapikian, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument, and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.



Rita A. Capobianchi  
NOTARY PUBLIC

My Commission Expires: Feb. 1, 2002

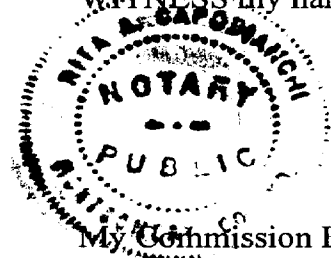
Dated: 1/2/2001

Robert M. Chanock  
Robert M. Chanock

STATE OF MARYLAND )  
 )  
COUNTY OF ) ss.

On Jan 2, 2001, before me, Robert M. Chanock, personally appeared Robert M. Chanock, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument, and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.



Rita A. Capobianchi  
NOTARY PUBLIC

My Commission Expires: Feb. 1, 2002

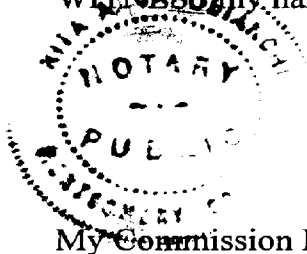
Dated: 1/2/2001

Yasutaka Hoshino  
Yasutaka Hoshino

STATE OF MARYLAND     )  
                                      )  
COUNTY OF                )     ss.

On 1/02/2001, before me, Yasutaka Hoshino,  
personally appeared Yasutaka Hoshino, personally known to me (or proved to  
me on the basis of satisfactory evidence) to be the person whose name is subscribed to the  
within instrument, and acknowledged to me that he executed the same in his authorized  
capacity, and that by his signature on the instrument the person, or the entity upon behalf of  
which the person acted, executed the instrument.

WITNESS my hand and official seal.



Rita G. Capobianchi  
NOTARY PUBLIC

My Commission Expires: Feb. 1, 2002

SE 5006195 v1