AD 53 190 Attorney Form **PTO-1595 3heet** U.S. Department of Commerce 03-25-2003 (Rev. 03-01) U.S. Patent and Trademark Office OMB No. 0651-0027 (exp. 5/31/2002) GRacia PCTR¥O 25 OCT+2002 Tab settings ⟩ ⟩ > ▼ To the Honorable Commis the attached original documents or copy thereof Name of conveying party(ies): 102398604 nd address of receiving party(ies) Genoveffa Franchini; Zdenek Hel; George Pavlakis; James Name: The Government of the United States of America Tartaglia as represented by the Secretary of the Department of Health and Human Services Additional name(s) of conveying parties attached? Additional name(s) of conveying parties attached? No. Internal Address: National Institutes of Health - OTT 3. Nature of conveyance: Street Address: 6011 Executive Boulevard, Suite 325 Assignment Merger City: Rockville State: Maryland ZIP: 20852 Security Agreement ☐ Change of Name Other: __ Name: Aventis Pasteur, Inc. Street Address: Connaught Campus, 1755 Steeles Avenue Execution Dates: October 3, 2002; September 27, 2002; West September 30, 2002; October 2, 2002 City: Toronto Province: Ontario ZIP: M2R3T4 Country: Canada Additional names and addresses attached? ☐ Yes ☒ No 4. Application number(s) or patent number(s). If this document is being filed together with a new application, the execution date of the application is: N/A Patent Application No(s): herewith PCT/US01/13968 Patent No(s): 10258570 Additional numbers attached? Yes No Name and address of party to whom correspondence 6. Total number of applications and patents involved ONE concerning document should be mailed: 7. Total fee (37 CFR 3.41); -----\$40.00 Jean M. Lockyer Name: TOWNSEND AND TOWNSEND AND CREW LLP Two Embarcadero Center, 8th Floor ☐ Enclosed San Francisco, California 94111-3834 (415) 576-0200 Authorized to be charged to deposit account

8. Deposit account number: 20-1430

(Attach duplicate copy of this page if paying by deposit account)

DO NOT USE THIS SPACE

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.

accament.

Jean M. Lockyer
Name of Person Signing
Atty. Reg. No. 44,879

Total number of pages including cover sheet, attachments and document

October 25, 2002

Mail documents to be recorded with required cover to:

Commissioner of Patents and Trademarks, Box Assignments Washington, D.C. 20231

SF 1400111 vI

EIGHT

WHEREAS, We, Genoveffa Franchini of 4400 17th Street N.W., Washington, District of Columbia, 20011, a citizen of the United States; Zdenek Hel of 10436 Rockville Pike #101, Rockville, Maryland, 20852, a citizen of the Czech Republic; George Pavlakis of 9 Purdue Court, Rockville, Maryland, 20850, a citizen of the United States; all inventors being employees of the Department of Health and Human Services at the time the invention was made, have invented: IMMUNOGENICITY USING A COMBINATION OF DNA AND VACCINIA VIRUS VECTOR VACCINES, for which an application to the Assistant Commissioner for Patents for grant of Letters Patents of the United States of America has been executed by the undersigned

\boxtimes on (date(s) I	Declaration signed):
is identified Serial N	as U.S. Patent Application:
Filed	; and

WHEREAS, 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 herein, both domestic and foreign; and

WHEREAS, the Government of the United States of America is desirous of acquiring all domestic and foreign right, title, and interest in the aforesaid invention described in the aforesaid application for Letters Patent of the United States of America; and

NOW, THEREFORE, to all whom it may concern, be it known that for and in consideration of the premises and other valuable considerations, we the undersigned, have sold, assigned, and transferred and by these presents do sell, assign, and transfer unto 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 his successors, the full and exclusive right, title, and interest throughout the United States of America, its territories and dependencies, and within each and every foreign country in which THE GOVERNMENT elects to file the invention described in the aforesaid application for Letters Patent of the United States of America, and all Letters Patents and Registrations which may be granted 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 the Paris Convention, or of any division, renewal, continuation in whole or in part, substitution, conversion, reissue, prolongation or extension thereof.

AND, we hereby authorize and request the Assistant Commissioner for Patents to issue said Letters Patent to THE GOVERNMENT as assignee of the 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;

AND, we hereby warrant that there are no outstanding assignments, grants, liens, encumbrances, or agreements either written, oral, or implied with respect to the aforesaid 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 hereby 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.

The undersigned hereby grants THE GOVERNMENT or the law firm of Townsend and Townsend and Crew LLP, the power to insert on this Assignment any further identification which 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.

2

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

County File (date)

STATE OF Maryland

COUNTY OF Maryland

UNITED STATES OF AMERICA

On 2222, before me, John W. Harde, Maryland, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, execute the instrument.

WITNESS my hand and official seal.

(Seal)

JOHN W. HARWELL
NOTARY PUBLIC
MONTGOMERY COUNTY, MARYLAND
MY COMMISSION EXPIRES
MARCH 28, 2006

Think Hel	912712002
Zdenek Hel	(date)
STATE OF MARYLOND) COUNTY OF MONGOMERY)	
UNITED STATES OF AMERICA	
On 27 1 2002 before me, 10 DA the officer), personally appeared X ZDENEX to me on the basis of satisfactory evidence) to be	tiec, personally known to me (or proved

WITNESS my hand and official seal.

the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the

entity upon behalf of which the person(s) acted, execute the instrument.

of

(Seai)

Attorney Docket No.: 015280-419100US

DHHS Ref. No.: E-009-00/1

ASSIGNMENT OF PATENT APPLICATION

SOLE

WHEREAS, James Tartaglia, residing at 62 Brookeview Drive, Aurora, Ontario, L4G 6R6, Canada, a citizen of the United States of America, hereinafter referred to as "Assignor," is the inventor of the invention described and set forth in the below-identified patent application:

Title of Invention:

IMMUNOGENICITY USING A COMBINATION OF DNA

AND VACCINIA VIRUS VECTOR VACCINES

Filing Date:

April 30, 2001

Application No.:

PCT/US01/13968

WHEREAS, Aventis Pasteur, Inc., Connaught Campus, 1755 Steeles Avenue West, Toronto, Ontario, M2R3T4, Canada, 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 agrees that s/he 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 Assignce 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.

PATENT

REEL: 013867 FRAME: 0053

Sole Assignment

Attorney Docket No.: 015280-418100US

DHHS Ref. No.: E-157-00/1

Page 2

IN TESTIMONY WHEREOF, Assignor has signed his name on the dates indicated.

Dated: Otebr 2 2002	James Tartaglia
PROVINCE OF OUTAGE CITY OF TORONTO	_}
basis of satisfactory evidence) to be the person(and acknowledged to me that he/she/they execut	(here insert name and title of the APLVA, personally known to me (or proved to me on the s) whose name(s) is/are subscribed to the within instrument ed the same in his/her/their authorized capacity(ies), and that he person(s), or the entity upon behalf of which the person(s)
WITNESS my hand and official seal.	Signature Property
(Seal)	Director of Intellectual Property

GAVIN ROSS ZEALEY, Notary Public, City of Toronto, limited to the attestation of instruments and the taking of affidavits, for Aventis Pasteur Limited. Expires March 24, 2003.

SF 1386920 v1

STATEMENT UNDER 37 C.F.R. § 3.73(b)

Applicants: Genoveffa Franchini, Zdenek Hel, George Pavlakis	
Application No.: <u>Unassigned</u> Filed: <u>Herewith</u>	
For: IMMUNOGENICITY USING A COMBINATION OF DNA AND VACCINIA VIRUS V	ECTOR VACCINES
United States Department of Health and Human Services, a government agency (Name of Assignee) (Type of Assignee, e.g., corporation, partnership, un	iversity, government agency, etc.)
certifies that it is assignee of the patent application identified above by virtue of either:	
A. X An assignment from the inventor(s) of the patent application identified above. The assignment and Trademark Office at Reel, Frame(s), or for vattached. OR	-
B A chain of title from the inventor(s), of the patent application identified above, to the cubelow:	rrent assignee as shown
1. From: To: To: The document was recorded in the Patent and Trademark Office at Reel, Frame, or for which a copy thereof is attached.	
2. From: To: To: The document was recorded in the Patent and Trademark Office at Reel, Frame, or for which a copy thereof is attached.	
3. From: To: To: The document was recorded in the Patent and Trademark Office at Reel, Frame, or for which a copy thereof is attached.	
Additional documents in the chain of title are listed on a supplemental sheet.	
Copies of assignments or other documents in the chain of title are attached.	
The undersigned (whose title is supplied below) is empowered to act on behalf of the assignee.	
hereby declare that all statements made herein of my own knowledge are true, and that a nformation and belief are believed to be true; and further, that these statements are made with the false statements, and the like so made, are punishable by fine or imprisonment, or both, under Se the United States Code, and that such willful false statements may jeopardize the validity of the appropriate the results of the appropriate the res	knowledge that willful ection 1001, Title 18 of
Date: 0ther 25, 2002	
Name and Reg. No.: JACK SPIEGEL 34,477	
Title: DIRECTOR, DIVISION OF TECH DEV. +TRANSFE	er, NULL, OTT
Signature: July Spend	
SF 1387329 v1	

WHEREAS, We, Genoveffa Franchini of 4400 17th Street N.W., Washington, District of Columbia, 20011, a citizen of the United States; Zdenek Hel of 10436 Rockville Pike #101, Rockville, Maryland, 20852, a citizen of the Czech Republic; George Pavlakis of 9 Purdue Court, Rockville, Maryland, 20850, a citizen of the United States; all inventors being employees of the Department of Health and Human Services at the time the invention was made, have invented: IMMUNOGENICITY USING A COMBINATION OF DNA AND VACCINIA VIRUS VECTOR VACCINES, for which an application to the Assistant Commissioner for Patents for grant of Letters Patents of the United States of America has been executed by the undersigned

on (date(s) L	Declaration signed):
is identified Serial N	as U.S. Patent Application o.
Filed	; and

WHEREAS, 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 herein, both domestic and foreign; and

WHEREAS, the Government of the United States of America is desirous of acquiring all domestic and foreign right, title, and interest in the aforesaid invention described in the aforesaid application for Letters Patent of the United States of America; and

NOW, THEREFORE, to all whom it may concern, be it known that for and in consideration of the premises and other valuable considerations, we the undersigned, have sold, assigned, and transferred and by these presents do sell, assign, and transfer unto 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 his successors, the full and exclusive right, title, and interest throughout the United States of America, its territories and dependencies, and within each and every foreign country in which THE GOVERNMENT elects to file the invention described in the aforesaid application for Letters Patent of the United States of America, and all Letters Patents and Registrations which may be granted 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 the Paris Convention, or of any division, renewal, continuation in whole or in part, substitution, conversion, reissue, prolongation or extension thereof.

NOT FOR RECORDATION

AND, we hereby authorize and request the Assistant Commissioner for Patents to issue said Letters Patent to THE GOVERNMENT as assignee of the 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;

AND, we hereby warrant that there are no outstanding assignments, grants, liens, encumbrances, or agreements either written, oral, or implied with respect to the aforesaid 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 hereby 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.

The undersigned hereby grants THE GOVERNMENT or the law firm of Townsend and Townsend and Crew LLP, the power to insert on this Assignment any further identification which 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 TESTIMONY WHEREOF, Assignors have signed their names on the dates indicated.

Culf fill.

Genoveffa Franchini

(date)

STATE OF Maryland

UNITED STATES OF AMERICA

On QX3202, before me, John W. Harris, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, execute the instrument.

WITNESS my hand and official seal.

JOHN W. HARWELL NOTARY PUBLIC

MONTGOMERY COUNTY, MARYLAND MY COMMISSION EXPIRES MARCH 28, 2006

(Seal)

3

Thene He	912712002
Zdenek Hel	(date)
STATE OF MARJOND) COUNTY OF MONGOM (RY)	
UNITED STATES OF AMERICA	
On 27Th-2002 before me, HODA	MASIZ (here insert name and title of
the officer), personally appeared X FOENEX	HEL, personally known to me (or proved

WITNESS my hand and official seal.

to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the

entity upon behalf of which the person(s) acted, execute the instrument.

FARY PUBLIC STATE OF MARYLAND My Commission Expires March 22, 2004

(Seai)

Coup NPackets	Sep 30, 2002
George Pavlakis	(date)

STATE OF Maryland COUNTY OF Frederick

UNITED STATES OF AMERICA

On Sept 30, 2002, before me, Jenifer Bear Notory (here insert name and title of the officer), personally appeared George Paulakis, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, execute the instrument.

WITNESS my hand and official seal.

Signature Jenufus Bear My commission expires Apri, 2004

(Seal)

SF 1387304 v1

Applicants: James Tartaglia	1
Application No.: <u>Unassigne</u>	ed Filed: <u>Herewith</u>
For: IMMUNOGENICITY	USING A COMBINATION OF DNA AND VACCINIA VIRUS VECTOR VACCINES
Aventis Pasteur, Inc. (Name of Assignee)	a corporation (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)
certifies that it is assignee of	f the patent application identified above by virtue of either:
	m the inventor(s) of the patent application identified above. The assignment was recorded in d Trademark Office at Reel, Frame(s), or for which a copy thereof is
B A chain of title fro below:	m the inventor(s), of the patent application identified above, to the current assignee as shown
The document was	To: To: recorded in the Patent and Trademark Office at rame, or for which a copy thereof is attached.
The documen	t was recorded in the Patent and Trademark Office at Frame, or for which a copy thereof is attached.
The documen	t was recorded in the Patent and Trademark Office at rame, or for which a copy thereof is attached.
Additional documents	in the chain of title are listed on a supplemental sheet.
Copies of assignments	or other documents in the chain of title are attached.
The undersigned (whose titl	e is supplied below) is empowered to act on behalf of the assignee.
information and belief are b false statements, and the lik	tatements made herein of my own knowledge are true, and that all statements made on elieved to be true; and further, that these statements are made with the knowledge that willful e so made, are punishable by fine or imprisonment, or both, under Section 1001, Title 18 of that such willful false statements may jeopardize the validity of the application or any patent
Date:	October 25, 2002
Name:	Nathalie Schaeffer
Title:	legal nepresentative
Signature: SF 1387335 v1	

Attorney Docket No.: 015280-419100US

DHHS Ref. No.: B-009-00/1

ASSIGNMENT OF PATENT APPLICATION

SOLE

WHEREAS, James Tartaglia, residing at 62 Brookeview Drive, Aurora, Ontario, L4G 6R6, Canada, a citizen of the United States of America, hereinafter referred to as "Assignor," is the inventor of the invention described and set forth in the below-identified patent application:

Title of Invention:

IMMUNOGENICITY USING A COMBINATION OF DNA

AND VACCINIA VIRUS VECTOR VACCINES

Filing Date:

RECORDED: 10/25/2002

April 30, 2001

Application No.:

PCT/US01/13968

WHEREAS, Aventis Pasteur, Inc., Connaught Campus, 1755 Steeles Avenue West, Toronto, Ontario, M2R3T4, Canada, 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 agrees that s/he 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.

NOT FOR RECORDATION