

PATENT ASSIGNMENT

Electronic Version v1.1

Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT												
NATURE OF CONVEYANCE:	ASSIGNMENT												
CONVEYING PARTY DATA													
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 70%; text-align: center; padding: 5px;">Name</td> <td style="width: 30%; text-align: center; padding: 5px;">Execution Date</td> </tr> <tr> <td style="padding: 5px;">MARK L. SMITH</td> <td style="padding: 5px;">12/19/2005</td> </tr> </table>	Name	Execution Date	MARK L. SMITH	12/19/2005									
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<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%; padding: 5px;">Name:</td> <td style="padding: 5px;">SCHERING-PLOUGH LTD.</td> </tr> <tr> <td style="padding: 5px;">Street Address:</td> <td style="padding: 5px;">WEYSTRASSE 20</td> </tr> <tr> <td style="padding: 5px;">Internal Address:</td> <td style="padding: 5px;">P.O. BOX CH-6000</td> </tr> <tr> <td style="padding: 5px;">City:</td> <td style="padding: 5px;">LUCERNE 6</td> </tr> <tr> <td style="padding: 5px;">State/Country:</td> <td style="padding: 5px;">SWITZERLAND</td> </tr> </table>	Name:	SCHERING-PLOUGH LTD.	Street Address:	WEYSTRASSE 20	Internal Address:	P.O. BOX CH-6000	City:	LUCERNE 6	State/Country:	SWITZERLAND			
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PROPERTY NUMBERS Total: 3													
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%; text-align: center; padding: 5px;">Property Type</td> <td style="text-align: center; padding: 5px;">Number</td> </tr> <tr> <td style="padding: 5px;">Application Number:</td> <td style="padding: 5px;">11314397</td> </tr> <tr> <td style="padding: 5px;">Application Number:</td> <td style="padding: 5px;">60640408</td> </tr> <tr> <td style="padding: 5px;">Application Number:</td> <td style="padding: 5px;">60665690</td> </tr> </table>	Property Type	Number	Application Number:	11314397	Application Number:	60640408	Application Number:	60665690					
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CH \$120.00 11314397

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PATENT
REEL: 017390 FRAME: 0775

CORRESPONDENCE DATA

Fax Number: (908)298-5388

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: 908-298-5255

Email: shawn.m.armstrong@spcorp.com

Correspondent Name: SCHERING-PLOUGH CORPORATION

Address Line 1: 2000 GALLOPING HILL ROAD

Address Line 2: K-6-1, 1990

Address Line 4: KENILWORTH, NEW JERSEY 07033

ATTORNEY DOCKET NUMBER:

AH06258US01

NAME OF SUBMITTER:

SHAWN ARMSTRONG

Total Attachments: 6

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(Joint)

PATENT CASE: AH06258US01

ASSIGNMENT

For good and valuable consideration, receipt of which is acknowledged,

(1) <u>David E. Junker</u> ,	(4) <u>Kenneth E. Palmer</u> ,
(2) <u>Mark D. Cochran</u> ,	(5) <u>Gregory P. Pogue</u> ,
(3) <u>Mark L. Smith</u> ,	

respectively residing at

(1) <u>San Diego, CA</u> ,	(4) <u>Vacaville CA</u> ,
(2) <u>Carlsbad, CA</u> ,	(5) <u>Vacaville, CA</u> ,
(3) <u>Davis, CA</u> ,	

we each do hereby sell, assign and transfer to SCHERING-PLOUGH ANIMAL HEALTH CORPORATION, a corporation organized under the laws of the State of Delaware, having its principal offices at 1095 Morris Avenue, Union, New Jersey 07083-7143, with respect to the United States of America, SCHERING-PLOUGH LTD., a corporation organized under the laws of Switzerland, having its principal office at Weysstrasse 20, P.O. Box CH-6000, Lucerne 6, Switzerland, with respect to all other countries of the world, except Australia, and SCHERING-PLOUGH PTY. LIMITED, a corporation organized under the laws of Australia, having is principal office at 11 Gibbon Road, Baulkham Hills, New South Wales 2153, Australia, with respect to Australia (each, an "ASSIGNEE" with respect to the identified country(ies)) our respective entire rights, title and interest, in the respective country(ies) of the world:

in and to any and all of our invention(s) and discovery(ies) described in the patent applications, entitled

NEUTRALIZING EPITOPE-BASED GROWTH ENHANCING VACCINE

and officially identified* by the United States Patent and Trademark Office as provisional Application Number 60/640,408 filed on December 30, 2004, provisional Application Number 60/665,690 filed on March 28, 2005, non-provisional Application Number 11/314,397 filed on December 21, 2005,

and/or by the World Intellectual Property Organization as International Patent Application Number US2005/046363 filed on December 21, 2005; in and to the right to file patent applications in the name of the respective **ASSIGNEE**, its designee, or in any or all of our names, at such ASSIGNEE's election, on the aforesaid invention(s) and discovery(ies) in the country(ies) of the world it selects, together with any or all rights of priority in the aforesaid countries deriving from the above-identified patent application under the International Convention for the Protection of Industrial Property, under the Inter-American Convention relating to Inventions, Patents, Designs and Industrial Models, and/or under any other international arrangement to which the United States now is, or hereafter becomes, a signatory; in and to any and all Letters Patent that issue on any of the aforesaid patent applications; in and to any and all applications claiming priority benefits from one or more provisional patent or other applications filed on said invention(s) and discovery(ies); and in and to any and all continuations, continuations-in-part, divisions, reissues, re-examinations, confirmations, additions, registrations, renewals, and revivals of any of said Letters Patent, and any and all extensions and supplementary protection certificates based thereon, the same to be held and enjoyed by each respective **ASSIGNEE**, its successors, assigns and other legal representatives, to the full ends of the terms for which a Letters Patent therefor and any extensions and supplementary protection certificates based thereon may be granted, as fully and entirely as the same would have been held and enjoyed by us if this assignment and sale had not been made.

And we hereby covenant and agree that we will at any time, upon the request and at the expense of any **ASSIGNEE(S)**, execute and deliver any and all documents that may be necessary or desirable to perfect the title to the foregoing invention(s) and discovery(ies), patent application(s), and Letters Patent, and any continuations, continuations-in-part, divisions, reissues, re-examinations, confirmations, additions, registrations, renewals, and revivals thereof, and any extensions and supplementary protection certificates based thereon, in the respective **ASSIGNEE(S)**, its/their successors, assigns and/or other legal representatives, including the execution and procurement of any and all further documents evidencing this assignment and sale as may be necessary or desirable for recording the same in the Patent Office of any country(ies) concerned, and that

Executed this _____ day of _____, 20____.

L.S.
MARK D. COCHRAN

ACKNOWLEDGEMENT

State of _____)
County of _____) s.s.:

On this _____ day of _____, 20____, personally appeared before me **Mark D. Cochran** to me known, and known by me to be the same person described in and who executed the foregoing instrument, and acknowledged that he (she) executed the same, of his (her) own free will for the purpose set forth.

(Seal)

Notary Public

Executed this 19 day of December, 2005.

Mark L. Smith
L.S.
MARK L. SMITH

ACKNOWLEDGEMENT

State of _____)
County of _____) s.s.:

On this _____ day of _____, 20____, personally appeared before me **Mark L. Smith** to me known, and known by me to be the same person described in and who executed the foregoing instrument, and acknowledged that he (she) executed the same, of his (her) own free will for the purpose set forth.

(Seal)

Notary Public

*See attached CA ack.
Notary Public.*

Executed this _____ day of _____, 20_____.

L.S.
KENNETH E. PALMER

ACKNOWLEDGEMENT

State of _____)
County of _____) s.s.:

On this _____ day of _____, 20_____, personally appeared before me **Kenneth E. Palmer** to me known, and known by me to be the same person described in and who executed the foregoing instrument, and acknowledged that he (she) executed the same, of his (her) own free will for the purpose set forth.

(Seal)

Notary Public

Executed this _____ day of _____, 20_____.

L.S.
GREGORY P. POGUE

ACKNOWLEDGEMENT

State of _____)
County of _____) s.s.:

On this _____ day of _____, 20_____, personally appeared before me **Gregory P. Pogue** to me known, and known by me to be the same person described in and who executed the foregoing instrument, and acknowledged that he (she) executed the same, of his (her) own free will for the purpose set forth.

(Seal)

Notary Public

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California

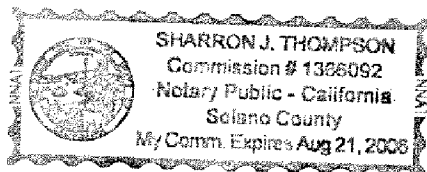
County of Solano

} ss.

On December 19, 2005, before me, Sharron J. Thompson, Notary Public,
personally appeared Mark L. Smith

Name(s) of Signer(s)

☒ personally known to me
☐ 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, executed the instrument.

WITNESS my hand and official seal.

Sharron Thompson
Signature of Notary Public

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

Description of Attached Document

Title or Type of Document: Assignment

Document Date: _____ Number of Pages: _____

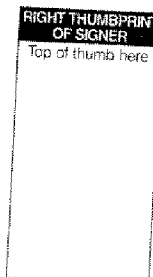
Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer

Signer's Name: _____

- ☐ Individual
☐ Corporate Officer — Title(s): _____
☐ Partner — ☐ Limited ☐ General
☐ Attorney-in-Fact
☐ Trustee
☐ Guardian or Conservator
☐ Other: _____

Signer Is Representing: _____



PATENT

RECORDED: 03/30/2006

REEL: 017390 FRAME: 0782