Express Mail Label No. EJ770259025US Date of Deposit: February 3, 2000

Attorney Docket No. 19721-010 (PMC-10)

FORM PTO-1595 200 FEB -3 AM 9: 47 (Rev. 6-93) OMB No. 0651-0011 (exp. 4/94) OPR/FINANCE	02-25-2000  DEPARTMENT OF COMMERCE Patent and Trademark Office  101275332	
Please record the attached of	iginal documents of copy thereon.	
1. Name of conveying party(ies):	2. Name and address of receiving party(ies)	
Andrew D. Murdin Raymond P. Oomen Pamela L. Dunn	Name: Connaught Laboratories Limited  Internal Address: 1755 Steeles Avenue, West	
	Ontario, Canada M2R 3T4	
Additional name(s) of conveying party(ies) attached? Yes No	Street Address: 1755 Steeles Avenue,	
3. Nature of conveyance:  Assignment Merger Security Agreement Change of Name Other Execution Date: December 14, 1999, November 26, 1999, and January 6, 2000, respectively.	Ontario, Canada M2R 3T4  Additional name(s) & address(es) attached?  Yes No	
<ul> <li>4. Application number(s) or patent number(s):     If this document is being filed together with a new application, the execut.     </li> <li>A. Patent Application No(s):</li> <li>09/427,501</li> </ul>	B. Patent No(s):	
Additional numbers attached?  ☐Yes  ☒ No		
5. Name and address of party to whom correspondence Concerning document should be mailed:  Name: lvor R. Elrifi Address: MINTZ, LEVIN, COHN, FERRIS GLOVSKY and POPEO, P.C. One Financial Center Boston, MA 02111	6. Total number of applications and patents involved: [1]  7. Total fee (37 CFR 3.41) \$40.00  ☑ Enclosed ☐ The Commissioner is authorized to charge Deposit Account No: 50-0311, Reference No. 19721-010 (PMC-10).	
DO NOT U	ISE THIS SPACE	
9. Statement and signature  To the best of my knowledge and belief, the foregoing information is true  Shelby J. Walker	and correct and any attached copy is a true copy of the original document.  February 3, 2000	
Total number of pages including cover sheet, attachments, and document: [4]		

Mail documents to be recorded with required cover sheet information to:

BOX ASSIGNMENT Commissioner of Patents and Trademarks Washington, D.C. 20231

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PATENT REEL: 010561 FRAME: 0411 Express Mail Label No.: EJ770259025US

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## **ASSIGNMENT**

We, Andrew D. Murdin, Raymond P. Oomen, and Pamela L. Dunn, the undersigned, for good and valuable consideration, the receipt of which is hereby acknowledged, hereby assign, sell and transfer to Connaught Laboratories Limited, a Canadian corporation, with offices at 1755 Steeles Avenue West, Toronto, Ontario, Canada, and its successors, assigns and legal representatives, all hereinafter referred to as the ASSIGNEE: (1) our entire right, title and interest for the United States and in all countries, in and to any and all inventions, discoveries and applications which are disclosed in the application for United States Letters Patent entitled:

## CHLAMYDIA ANTIGENS AND CORRESPONDING DNA FRAGMENTS AND USES THEREOF

filed with the U.S. Patent and Trademark Office on October 26, 1999 and assigned Serial No. 09/427,501 including any renewals, revivals, reissues, reexaminations, extensions, continuations and divisions thereof and any substitute applications therefor; (2) the full and complete right to file patent applications in the name of the ASSIGNEE, its designee, or in our names at the ASSIGNEE, or its designee's election, on the aforesaid inventions, discoveries and applications in all countries of the world; (3) the entire right, title and interest in and to any Letters Patent which may issue thereon in the United States or in any country, and any renewals, revivals, reissues, reexaminations and extensions thereof, and any patents of confirmation, registration and importation of the same; and (4) the entire right, title and interest in all Convention and Treaty Rights of all kinds thereon, including without limitation all rights of priority in any country of the world, in and to the above inventions, discoveries and applications.

We hereby authorize and request the competent authorities to grant and to issue any and all such Letters Patent in the United States and throughout the world to the ASSIGNEE of the entire right, title and interest therein, as fully and entirely as the same would have been held and enjoyed by us had this assignment, sale and transfer not been made.

We agree, at any time, upon the request of the ASSIGNEE, to execute and to deliver to the ASSIGNEE any additional applications for patents for said inventions and discoveries, or any part or parts thereof, and any applications for patents of confirmation, registration and importation based on any Letters Patent issuing on said inventions, discoveries, or applications and divisions, continuations, renewals, revivals, reissues, reexaminations and extensions thereof.

We further agree at any time to execute and to deliver upon request of the ASSIGNEE such additional documents, if any, as are necessary or desirable to secure patent protection on said inventions, discoveries and applications throughout all countries of the world, and otherwise to do the necessary to give full effect to and to perfect the rights of the ASSIGNEE under this Assignment, including the execution, delivery and procurement of any and all further documents evidencing this assignment, transfer and sale as may be necessary or desirable.

PATENT REEL: 010561 FRAME: 0412 We hereby covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.

We further covenant that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said invention and said Letters Patent and legal equivalents as may be known and accessible to ASSIGNORS and will testify as to the same in any interference, litigation or proceeding related thereto and will promptly execute and deliver to ASSIGNEE or its legal representatives any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue and enforce said application, said invention and said Letters Patent and said equivalents thereof which may be necessary or desirable to carry out the purposes thereof.

Date: 200 14,1999	Signature of: Andrew D. Murdin
State of Catacac	<del>_</del>
Country of Councide	_
Subscribed and sworn to before me this 14	day of December, 1999.
CAROL ANN GILLIS, Notary Public, Municipality of Metropolitan Toronto, limited to the attestation of instruments and the taking of affidavits, for	Joand En Cours
Connaught Laboratories Limited. Expires January 21, 2000.	My commission expires July 31, 2000.
Date: November 26,1999 Province State of Ontanio	Signature of: Raymond P. Oomen
Country of Canada	_
Subscribed and sworn to before me this 26	day of Jovenber, 1999.
	Morrol an Ener
	My commission expires
	CAROL ANN GILLIS, Notary Public, Municipality of Metropolitan Toronto, limited to the attestation of instruments and the taking of affidavits, for Connaught Laboratories Limited.  Expires January 21, 2000.

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Date: (amuwy 6, 2000	Pareca LD
Province Ontario	Signature of: Pamela L. Dunn
State of Ontauc	_
Country of Canada	-
Subscribed and sworn to before me this	nday of January, 2000.
	My commission expires

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RECORDED: 02/03/2000