

## PATENT ASSIGNMENT COVER SHEET

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 Stylesheet Version v1.2

EPAS ID: PAT4162627

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
ROSANNE CROOKE	06/07/2004
MARK GRAHAM	06/15/2004
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	ISIS PHARMACEUTICALS, INC.
<b>Street Address:</b>	2292 FARADAY AVENUE
<b>City:</b>	CARLSBAD
<b>State/Country:</b>	CALIFORNIA
<b>Postal Code:</b>	92008
<b>PROPERTY NUMBERS Total: 2</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	14175889
<b>Application Number:</b>	13629214
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(617)646-8646
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i>	
<b>Email:</b>	mrush@wolfgreenfield.com, patents_PatrickW@wolfgreenfield.com
<b>Correspondent Name:</b>	WOLF GREENFIELD & SACKS, P.C.
<b>Address Line 1:</b>	600 ATLANTIC AVENUE
<b>Address Line 4:</b>	BOSTON, MASSACHUSETTS 02210
<b>ATTORNEY DOCKET NUMBER:</b>	K0645.70004US04
<b>NAME OF SUBMITTER:</b>	PATRICK R.H. WALLER
<b>SIGNATURE:</b>	/Patrick R.H. Waller/
<b>DATE SIGNED:</b>	11/30/2016
<b>Total Attachments: 4</b>	
source=K0645.70004US04 - Assignment 1 (Crooke & Graham to Isis)#page1.tif	
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ASSIGNMENT

WHEREAS, we, Rosanne Crooke, Mark Graham, Kristina Lemonidis Tarbet and Kenneth Dobie, residing at 3211 Piraqua Street, Carlsbad, CA 92009; 2305 Ola Vista, San Clemente, CA 92762; 1652 Seattle Slew Way, CA 92057; and 703 Stratford Court, #4, Del Mar, CA 92014, respectively, hereinafter referred to as the assignors, are the joint inventors of certain inventions or improvements for which we have made application for Letters Patent to the United States, identified as Case No. 30566/39634[DOC-0216US] entitled **ANTISENSE MODULATION OF APOLIPOPROTEIN B EXPRESSION** filed November 13, 2003 and assigned U.S. Serial No. 10/712,795.

WHEREAS, Isis Pharmaceuticals Inc. hereinafter referred to as the assignee, of 2292 Paraday Ave, Carlsbad, California 92008 is desirous of acquiring the entire right, title and interest in and to the said inventions or improvements and in and to the said application, and in, to and under any and all Letters Patent which may be granted on or as a result thereof in any and all countries:

NOW, THEREFORE, for and in consideration of the sum of One Dollar (\$1.00) to each of us in hand paid by said assignee, and other good and valuable consideration, the receipt of which is hereby acknowledged, we, the said assignors, have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over to said assignee, the entire right, title and interest in and to said inventions or improvements and said application and any and all continuations, divisions and renewals of and substitutes for said application, and in, to and under any and all Letters Patent which may be granted on or as a result thereof in the United States and any and all other countries, and any reissue or reissues or extension or extensions of said Letters Patent, and assign to and authorize said assignee, to file in our names applications for Letters Patent in all countries, the same to be held and enjoyed by said assignee, its successors, assigns, nominees or legal representatives, to the full end of the term or terms for which said Letters Patent respectively may be granted, reissued or extended, as fully and entirely as the same would have been held and enjoyed by us had this assignment, sale and transfer not been made.

AND we hereby covenant that we have full right to convey the entire interest herein assigned, and that we have not executed and will not execute any agreement in conflict herewith, and we further covenant and agree that we will each time a request is made and without undue delay, execute and deliver all such papers as may be necessary or desirable to perfect the title to said inventions or improvements, said application and said Letters Patent to said assignee, its successors, assigns, nominees, or legal representatives, and each of us agrees to communicate to said assignee or to its nominee all known facts respecting said inventions or improvements, said application and said Letters Patent, to testify in any legal proceedings, to sign all lawful papers, to execute all disclaimers and divisional, continuing, reissue and foreign applications, to make all rightful oaths, and

generally to do everything possible to aid said assignee, its successors, assigns, nominees and legal representatives to obtain and enforce for its or their own benefit proper patent protection for said inventions or improvements in any and all countries.

AND we hereby authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any country or countries foreign to the United States whose duty it is to issue patents on applications as aforesaid, to issue to said assignee, as assignee of the entire right, title and interest, any and all Letters Patent for said inventions or improvements, including any and all Letters Patent of the United States which may be issued and granted on or as a result of the application aforesaid, in accordance with the terms of this assignment.

IN WITNESS WHEREOF, we have hereunto set our hands and seals.

Dated: 6/7/04

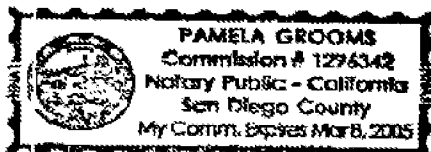
Rosanne Crooke  
Rosanne Crooke

STATE OF California

COUNTY OF San Diego

ss.

This 7th day of June 2004, before me personally came the above-named Rosanne Crooke, who executed the foregoing Assignment in my presence, and who acknowledged to me that he/she executed the same of his/her own free will for the purposes set forth therein.



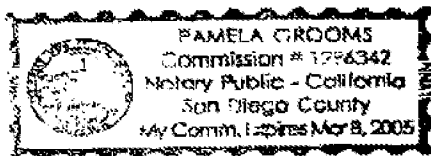
SEAL

Pamela Grooms  
Notary Public

Dated: 6/15/04Mark Graham  
Mark GrahamSTATE OF CaliforniaCOUNTY OF San Diego

ss.

This 15th day of June 2004, before me personally came the above-named Mark Graham, who executed the foregoing Assignment in my presence, and who acknowledged to me that he/she executed the same of his/her own free will for the purposes set forth therein.

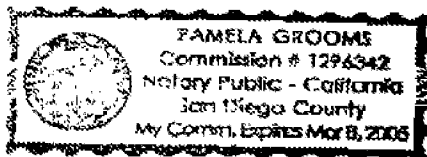
Pamela Grooms  
Notary Public

[SEAL]

Dated: 6/19/04Kristina Lemonidis Tarbet  
Kristina Lemonidis TarbetSTATE OF CaliforniaCOUNTY OF San Diego

ss.

This 9th day of June 2004, before me personally came the above-named Kristina Lemonidis Tarbet, who executed the foregoing Assignment in my presence, and who acknowledged to me that he/she executed the same of his/her own free will for the purposes set forth therein.

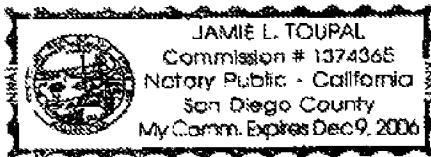
Pamela Grooms  
Notary Public

4/30/04

Dated: 4/30/04Kenneth Dobie  
Kenneth DobieSTATE OF CaliforniaCOUNTY OF San Diego

ss.

This 30th day of April, 2004, before me personally came the above-named Kenneth Dobie, who executed the foregoing Assignment in my presence, and who acknowledged to me that he/she executed the same of his/her own free will for the purposes set forth therein.

Jamie L. Toupal  
Notary Public