PATENT ASSIGNMENT

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
ROSANNE M. CROOKE	11/20/2001
MARK J. GRAHAM	11/16/2001

RECEIVING PARTY DATA

Name:	ISIS PHARMACEUTICALS, INC.
Street Address:	1896 RUTHERFORD ROAD
City:	CARLSBAD
State/Country:	CALIFORNIA
Postal Code:	92008

PROPERTY NUMBERS Total: 3

Property Type	Number
Patent Number:	7491815
Patent Number:	7915231
Application Number:	13019190

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ATTORNEY DOCKET NUMBER: 12207-276-999

NAME OF SUBMITTER: David C. Pauling

Total Attachments: 5

PATENT REEL: 026767 FRAME: 0453 H \$120 00 749

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PATENT REEL: 026767 FRAME: 0454 DOCKET NO.: ISPH-0584

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ASSIGNMENT

WHEREAS, We, Rosanne M. Crooke, of Carlsbad, State of California and Mark J. Graham, of San Clemente, State of California, have invented a certain invention entitled Antisense Modulation of C-reactive Protein Expression, for which we have made application for Letters Patent of the United States, said application having been filed July 25, 2001 and assigned Application No. 09/912,724; and

WHEREAS, ISIS Pharmaceuticals, Inc. hereinafter referred to as the assignee, of 2292 Faraday Avenue, Carlsbad CA, a corporation of Delaware, 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,

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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 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 its successors, assigns, nominees, assignee, 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

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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: 20th hon, 2001

Rosanne M. Crooke

State of California

ss.

County of San Diego

On this 20 day of Dournber, 2001, before me, the undersigned, a Notary Public for the state, personally appeared Rosanne M. Crooke, personally known to me/proved to me on the basis of satisfactory evidence to be the person who subscribed the foregoing Assignment and acknowledged to me that she executed the same in her authorized capacity, and that by her signature on the Assignment the person, or the entity on behalf of which the person acted, executed the Assignment.

ignature of Notary

LANE B.D. SCHWARTZ
Commission # 1196197
Notary Public - California
San Diego County
My Comm. Expires Sep 13, 2002

WITNESS my hand and official seal.

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DATED: \\\(\langle \langle \operatorname{\langle} 2001

State of California

SS.

County of San Diego

On this 10th day of Movember, 2001, before me, the undersigned, a Notary Public for the state, personally appeared Mark J. Graham, personally known to me/proved to me on the basis of satisfactory evidence to be the person who subscribed the foregoing Assignment and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the Assignment the person, or the entity on behalf of which the person acted, executed the Assignment.

WITNESS my hand and official seal.

PAMELA GROOMS Commission # 1296342 lotary Public - California San Diego County y Comm. Expires Mor 8, 2005

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SERIAL NO.	FILING DATE	SERIAL NO. FILING DATE INVENTORS EXAMINER ART UNIT	EXAMINER	ART UNIT	TITLE
09/912,724	July 25, 2001	Crooke, Graham	Sean McGarry 1635	1635	Antisense Modulation Of C-Reactive Protein
					Expression
10/483,424	June 17, 2004	Crooke, Graham	Not Yet	1636	Antisense Modulation Of C-Reactive Protein
			Assigned		Expression
60/475,272	June 2, 2003	Crooke, Graham	Not Yet	Not Yet	Antisense Modulation Of C-Reactive Protein
			Assigned	Assigned	Expression

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REEL: 026767 FRAME: 0459 RECORDED: 08/17/2011