FORM PTO-1595 1-31-92 Docket No.: <b>ISPH-0350</b>	101071732	EPARTMENT OF COMMERC Patent and Trademark Offi
RECORDATION FOR	M COVER SHEET I ID NO:	PATENTS ONLY
To The Honorable Commissioner of Patents and Trader	marks. Please record the attached origin	al document(s) or copy thereof.
1. Name of conveying party(ies): Robert McKay, Nicholas Dean, Brett P. Monia, Pamela S. Nero and William A. Gaarde	<ul> <li>2. Name and address of receiving party(ies): Name: Isis Pharmaceuticals Inc. Internal Address: Carlsbad Research Center Street Address: 2292 Faraday Avenue City: Carlsbad State: California Zip: 9200 Additional names (s) &amp; address attached?</li> <li>( ) YES (XX) NO</li> </ul>	
Additional name(s) of conveying party(ies) attached? () YES (XX) NO		Zip: <b>920(</b>
<ul> <li>3. Nature of Conveyance:</li> <li>(XX) Assignment () Merger</li> <li>() Name Change () Security Agreement</li> <li>() Other:</li> <li>Execution date: June 4, 1999</li> </ul>		ss attached?
4. Application number(s) or patent number	(s):	
<ul> <li>A. Patent Application No(s). 09/287,796</li> <li>If this document is being filed together with Additional numbers attached? ( ) YES (X</li> <li>5 Name and address of party to whom</li> </ul>	a new application, the execution (XX) NO	n date of the application is:
If this document is being filed together with	a new application, the execution (XX) NO	n date of the application is:
If this document is being filed together with Additional numbers attached? () YES (X 5. Name and address of party to whom correspondence concerning documents	a new application, the execution (XX) NO	n date of the application is: ons and patents involved: <b>One (1)</b> \$
If this document is being filed together with Additional numbers attached? () YES (X 5. Name and address of party to whom correspondence concerning documents should be mailed: Jane Massey Licata, Esq. Law Offices of Jane Massey Licata	<ul> <li>a new application, the execution (XX) NO</li> <li>6. Total number of application</li> <li>7. Total fee (37 CFR 3.41):</li> <li>( ) Enclosed</li> </ul>	n date of the application is: ons and patents involved: <b>One (1)</b> \$ ed to deposit account. <b>12-1086</b>
If this document is being filed together with Additional numbers attached? () YES (X 5. Name and address of party to whom correspondence concerning documents should be mailed: Jane Massey Licata, Esq. Law Offices of Jane Massey Licata 66 E. Main Street Marlton, New Jersey 08053	<ul> <li>a new application, the execution (XX) NO</li> <li>6. Total number of application</li> <li>7. Total fee (37 CFR 3.41): <ul> <li>() Enclosed</li> <li>(XX) Authorized to be charged</li> </ul> </li> <li>8. Deposit Account number: <ul> <li>(Attach duplicate copy of this)</li> </ul> </li> </ul>	n date of the application is: ons and patents involved: <b>One (1)</b> \$ ed to deposit account. <b>12-1086</b> page if paying by deposit
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If this document is being filed together with Additional numbers attached? () YES (X 5. Name and address of party to whom correspondence concerning documents should be mailed: Jane Massey Licata, Esq. Law Offices of Jane Massey Licata 66 E. Main Street Marlton, New Jersey 08053 DO NO 9. Statement and signature. To the best of	<ul> <li>a new application, the execution (X) NO</li> <li>6. Total number of application</li> <li>7. Total fee (37 CFR 3.41): <ul> <li>() Enclosed</li> <li>(XX) Authorized to be charged</li> </ul> </li> <li>8. Deposit Account number: <ul> <li>(Attach duplicate copy of this account.)</li> </ul> </li> <li>DT USE THIS SPACE</li> <li>Thy knowledge and belief, the feed to be charged</li> </ul>	n date of the application is: ons and patents involved: <b>One (1)</b> \$ ed to deposit account. <b>12-1086</b> page if paying by deposit <b>E</b>
If this document is being filed together with Additional numbers attached? () YES (X 5. Name and address of party to whom correspondence concerning documents should be mailed: Jane Massey Licata, Esq. Law Offices of Jane Massey Licata 66 E. Main Street Marlton, New Jersey 08053 DO NC 9. Statement and signature. To the best of correct and any attached copy is a true copy Jane Massey Licata, Reg. No. 32,257 Name of Person Signing	<ul> <li>a new application, the execution (X) NO</li> <li>6. Total number of application</li> <li>7. Total fee (37 CFR 3.41): <ul> <li>() Enclosed</li> <li>(XX) Authorized to be charged</li> </ul> </li> <li>8. Deposit Account number: <ul> <li>(Attach duplicate copy of this account.)</li> </ul> </li> <li>DT USE THIS SPACE</li> <li>Thy knowledge and belief, the feed to be charged</li> </ul>	n date of the application is: ons and patents involved: <b>One (1)</b> \$ ed to deposit account. <b>12-1086</b> page if paying by deposit <b>E</b>

PATENT REEL: 010027 FRAME: 0071 A S S I G N M E N T

SAN DIAGO

WHEREAS, We, Robert McKay, of La-Mesa, State of California; Nicholas Dean, of Olivenhain, State of California; Brett P. Monia, of La Costa, State of California; Pamela S. Nero, of Oceanside, State of California, and William A. Gaarde, of Carlsbad, State of California have invented a certain invention entitled Antisense Oligonucleotide Compositions and Methods for the Modulation of JNK Proteins, for which we have made application for Letters Patent of the United States, said application having been filed April 7, 1999 and assigned Application No. 09/287,796; 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

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## PATENT

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 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

> ASSIGNMENT - PAGE 2 OF 5 PATENT REEL: 010027 FRAME: 0073

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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

ROBERT

MCKAY

seals.

State of California

County of San Diego 💕

On this day of <u>fine</u>, 1999, <u>before me</u>, the undersigned, a Notary Public for the state, <u>bersonally appeare</u> Robert McKay, personally known to me/<u>proved to me on the basis</u> of satisfactory evidence to be the person who subscribed the foregoing Assignment and acknowledged to me that he she executed the same in his/her authorized capacity, and that by his/her signature on the Assignment the person, or the entity on behalf of which the person acted, executed the Assignment.

ss.

 

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

 DATED:
 CMan
 , 1999

 DATED:
 County of San Diego
 )

 State of California
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 , ss.

 County of San Diego
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 of Man

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 Chary Fublic for the state, personally appeared

> ASSIGNMENT - PAGE 3 OF 5 PATENT REEL: 010027 FRAME: 0074

Nicholas Dean, 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 she executed the same in his/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.

WITNESS my hand and official seal. LANE B.D. SCHWARTZ Commission # 1196197 Notary Public - California San Diego County Ay Comm. Expires Sep 13, 2002 of DATED: 5/20/97, 1999 State of California SS. County of San Diego On this 20th day of May 1999, before me, the undersigned, a Notary Public for the state, personally appeared Brett P. Monia, 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/she executed the same in his/her authorized capacity, and that by his /her signature on the Assignment the person, or the entity on behalf of which the person acted, executed the Assignment. LANE B.D. SCHWARTZ WITNESS my hand and official seal. Commission # 1196197 Notary Public - Califamia San Diego County My Comm. Expires Sep 13, 2002 ionature of 1999 State of California ) SS. County of San Diego \_\_\_, 1999, before me, 🄊 day of On this 🔨 the undersigned, a Notary Public for the state, personally

ASSIGNMENT - PAGE 4 OF 5 PATENT REEL: 010027 FRAME: 0075

PATENT

appeared Pamela S. Nero, 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 she executed the same in his her authorized capacity, and that by his her 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. LANE B.D. SCHWARTZ Commission # 1196197 Notary Public - California San Diego County y Comm. Expires Sep 13, 2002 ignature of Notary 5/14 1999 DATED: State of California SS. County of San Diego 14th day of May , 1999, before me, On this the undersigned, a Notary Public for the state, personally

appeared William A. Gaarde, 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 she executed the same in his/her authorized capacity, and that by his her 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.



ASSIGNMENT - PAGE 5 OF 5 PATENT REEL: 010027 FRAME: 0076

**RECORDED: 06/16/1999**