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FORM PTO-1595 1-31-92

06-17-1998

U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office

To The Honorable Commissioner of Pate thereof.

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e attached original documents or copy

1. Name of conveying party(ies):

Robert S. Andrews

Additional name(s) of conveying party(ies) attached? () YES (X) NO

3. Nature of Conveyance:

() Assignment

() Merger

() Security Agreement

() Change of Name

(X) Other: Cross-referencing of Assignment from prior application S.N. 08/762,588 filed 12/10/96, recorded at Reel/Frame 8763/0171

Execution Date: March 2, 1993

2. Name and address of receiving party(ies):

Name: ISIS Pharmaceuticals, In€

Internal Address: 2292 Faraday Avente © E

Carlsbad, California 92008

Street Address: 2292 Faraday Avenue

City Carlsbad

State California

ZIP 92008

Additional name(s) & address attached? ()YES (X)NO

4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is:

A. Patent Application No.(s)

09/074,503 filed 5/8/98

B. Patent No.(s)

Additional numbers attached? () YES (X) NO

5. Mame and address of party to whom correspondence concerning documents should be mailed:

Name: Michael P. Straher, Esq.

Internal Address: WOODCOCK WASHBURN KURTZ

MACKIEWICZ & NORRIS LLP One Liberty Place - 46th Floor

Philadelphia, Pennsylvania 19103-7301

Street Address: WOODCOCK WASHBURN KURTZ

MACKIEWICZ & NORRIS LLP One Liberty Place - 46th Floor

1650 Market Street

Philadelphia, Pennsylvania 19103-7301

- 6. Total number of applications and patents involved: One (1)
- 7. Total fee (37 CFR 3.41):.....\$40.00

(X) Enclosed

- () Authorized to be charged to Deposit Account Number 23-3050
- 8. Please charge any deficiency or credit any overpayment to Deposit Account Number 23-3050

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9. Statement and signature.

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.

Michael P. Straher/38,325

Name of Person Signing/Reg. No.

Signature

May 27, 1998

Date

Total number of pages including cover sheet, attachments, and document: 4

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

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Commissioner of Patents and Trademarks **Box Assignments**

Washington, D.C. 20231

PATENT REEL: 9238 FRAME: 0974

(Pending Application; Serial No. Unknown)

DOCKET NO.: ISIS-0780

ASSIGNMENT

WHEREAS, I, Robert S. Andrews, hereinafter referred to as the assignor, residing at 32135 Via De Aguila, San Juan Capistrano, CA 92675, am the inventor of certain inventions or improvements for which I have made application for Letters Patent of the United States, identified as Case No. ISIS-0780, entitled 3-Deasapurines; and

WHEREAS, ISIS Pharmaceuticals, Inc., hereinafter referred to as the assignee, of Carlsbad, CA, a corporation of Delaware California, U.S.A., 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 me in hand paid by said assignee, and other good and valuable consideration, the receipt of which is hereby acknowledged, I, the said assignor, 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 re-issue or re-issues or extension or extensions of said Letters Patent, and assign to and authorize said assignee to file in my name 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 me had this assignment, sale and transfer not been made.

AND I hereby covenant that I have full right to convey the entire interest herein assigned, and that I have not executed and will not execute any agreement in conflict herewith, and I further covenant and agree that I 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 I agree 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 I 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 Patents 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.

I further authorize and direct my attorneys to insert below* the serial number and filing date of said application now identified as Case No. ISIS-0780 as soon as the same shall have been made known to them by the United States Patent Office.

IN WITNESS WHEREOF, I have hereunto set my hand and seal.

Polvest D. andrews (L.S.)

on this day of 1973, before me personally came the above named Tiber 3 Hodrews, to me personally known and known to me to be the same individual

who executed the foregoing assignment, and who acknowledged to me

K:\U\FORMS\ASSIGN\ASN-WOSN.SOL

COUNTY OF

PATENT Sole Inventor

that execution of the same was of that person's own free will for the use and purposes therein set forth. /

	OFFICIAL SEAL OLI EEN M. MATZINGER
	CTARY SUBLIC-CALIFORNIA
MY COM.	SAM DIEGO COUNTY EXP. NOV. 4,1994

Notary Public

The above insertion made by me this 21st_day.of_April_______, 1993">1993.

of WOODCOC

WASHBURN KURTZ MACKIEWICZ

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PATENT REEL: 9238 FRAME: 0977