PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Eric E. Swayze	06/18/2008
Stephen Hanessian	07/10/2008
Janek Szychowski	06/23/2008
Susanta Sekhar Adhikari	02/07/2008
Kandasamy Pachamuthu	07/26/2008
Xiaojing Wang	06/25/2008
Michael T. Migawa	06/18/2008
Richard H. Griffey	06/17/2008

RECEIVING PARTY DATA

Name:	ISIS Pharmaceuticals, Inc.
Street Address:	1896 Rutherford Road
City:	Carlsbad
State/Country:	CALIFORNIA
Postal Code:	92008-7208

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	12987842

CORRESPONDENCE DATA

Fax Number: (206)682-6031

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: (206) 622-4900
Email: susanc@seedip.com
Correspondent Name: Emily W. Wagner
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Address Line 2: Suite 5400

Address Line 4: Seattle, WASHINGTON 98104

PATENT

REEL: 026018 FRAME: 0447

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ATTORNEY DOCKET NUMBER:	110191.411C2
NAME OF SUBMITTER:	Emily W. Wagner
Total Attachments: 9	
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PATENT REEL: 026018 FRAME: 0448

ASSIGNMENT

WHEREAS, we,

Name	Residence Address	
Eric E. Swayze	7789 Palenque Street, Carlsbad, California 92009	;
Stephen Hanessian	65 Gables Court, Beaconsfield, Québec, Canada H9W 5H3	;
Janek Szychowski	1700 Rue Aladin, Val Belair, Québec, Canada G3K 1G3	;
Susanta Sekhar Adhikari	17 Bagmari Lane, B.r.s. 10 Block-3, Flat-31, Kankurgachi, Calcutta, West Bengal, India	;
Kandasamy Pachamuthu	500 Murray Ross Parkway, Apartment #1816, North York, Ontario, Canada M3J 2Z3	;
Xiaojing Wang	736 Bounty Drive #3604, Foster City, California 94404	;
Michael T. Migawa	930 Wind Drift Drive, Carlsbad, California 92011	; and
Richard H. Griffey	360 Barsby Street, Vista, California 92084	

(hereinafter referred to as ASSIGNORS), having residence addresses as listed above next to our names, are the listed inventors/applicants of the patent application entitled "ANTIBACTERIAL 4,5-SUBSTITUTED AMINOGLYCOSIDE ANALOGS HAVING MULTIPLE SUBSTITUTENTS," as filed with the U.S. Patent and Trademark Office on May 3, 2008, and assigned Application No. 12/130,048. This application is a continuation of International Application No. PCT/US2006/046122 filed December 1, 2006; which claims the benefit of U.S. Provisional Patent Application No. 60/742,051 filed December 2, 2005.

WHEREAS, **ISIS Pharmaceuticals, Inc.** (hereinafter referred to as ASSIGNEE), a corporation of the State of Delaware having a place of business at 1896 Rutherford Road, Carlsbad, California 92008-7208, is desirous of acquiring the entire right, title and interest in and to the invention and in and to any letters patent that may be granted therefor in the United States and in any and all foreign countries

NOW, THEREFORE, in exchange for good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNORS hereby sell, assign and transfer unto said ASSIGNEE the entire right, title and interest in and to said invention, said application and any and all letters patent which may be granted for said invention in the United States of America and its territorial possessions and in any and all foreign countries, and in any and all divisions, reissues and continuations thereof, including the right to file foreign applications directly in the name of ASSIGNEE and to claim priority rights deriving from said United States application to which said foreign applications are entitled by virtue of international convention, treaty or otherwise, said invention, application and all letters patent on said invention to be held and

1 of 9

PATENT REEL: 026018 FRAME: 0449 enjoyed by ASSIGNEE and its successors and assigns as fully and entirely as the same would have been held and enjoyed by ASSIGNORS had this assignment, transfer and sale not been made. ASSIGNORS hereby authorize and request the Commissioner of Patents and Trademarks to issue all letters patent on said invention to ASSIGNEE. ASSIGNORS agree to execute all instruments and documents required for the making and prosecution of applications for United States and foreign letters patent on said invention, for litigation regarding letters patent, or for the purpose of protecting title to said invention or letters patent therefor.

This Assignment is effective as of December 1, 2006.
Date GM & Smyse Eric E. Swayze
State of California
County of San Diego
On June 18, 2008, before me, Laura L. Eames, Notary Public, personally appeared Eric E. Swayze,
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s) or the entity upon behalf of which the person(s) acted, executed the instrument.
I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.
WITNESS my hand and official seal. LAURA L. EAMES Commission # 1794238 Notary Public - California San Diego County MyComm. Expires Apr 13, 2012

(Notary Seal)

Application No. 12/130,048

July 10, 2008	J.	
Dayle /	Stephen Hanessian	
Province of	SS.	
Country of Canada)	55.	

I certify that I know or have satisfactory evidence that **Stephen Hanessian** is the person who appeared before me, and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in the instrument.

Dated	July 10, 2008
Signature of Notary Public	Julye Di Liere
INOIGITY PUDITO	The state of the s

My appointment never expires.

66-23-2008	Janek Szychowski
Date	Janek Szychowski
Province of Quile)	SS.
Country of Canada)	

I certify that I know or have satisfactory evidence that **Janek Szychowski** is the person who appeared before me, and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in the instrument.

Dated 06 - 23 - 2008	
Signature of Notary Public	
Printed Name Vickie Mercier	
My appointment never expires.	

4 of 9

02-07-108	Susanta SekRax	ASh' Kori
Date	Susanta Sekhar Adhikari	
Witnessed by: Skhari Saka	**********	
Date: @2.07. 08		

July 26, 2008	K. Pass
Date	Kandasamy Pachamuthù
Province of ON	SS.
Country of Canada)	33.

I certify that I know or have satisfactory evidence that **Kandasamy Pachamuthu** is the person who appeared before me, and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in the instrument.

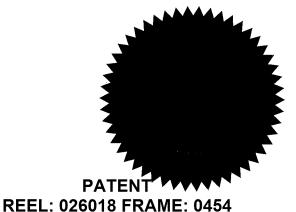
Signature of Notary Public

Printed Name

Chad David Rown

My appointment never expires.

CHAD D. RAWN
BARRISTER, SOLICITOR, NOTARY PUBLIC
469 Lawrence Ave. West, Suite 100
Toronto, Ontario M5M 1C6
Tel.: 416-712-8315 Fax: 416-781-2668



Date Xiaojing W	ang
State of California	
County of San Maleo	
On <u>6/25/08</u> , before me, <u>September</u> personally appeared <u>Xraojung Wang</u>	rc Plumlee, Notary Public, e and title of the officer)
who proved to me on the basis of satisfactory evidence subscribed to the within instrument and acknowledged to his her/their authorized capacity(ies), and that by his her/their or the entity upon behalf of which the person(s) acted, execut	me that he she they executed the same in r signature(s) on the instrument the person(s),
I certify under PENALTY OF PERJURY under the laws of the paragraph is true and correct.	State of California that the foregoing
WITNESS my hand and official seal. Substitute of Notary Public	SEPTEMBER C. PLUMLEE Commission # 1633981 Notary Public - California San Francisco County My Comm. Expires Jan 1, 2010 (Notary Seal)

6/18/2008	M. Luko Mi
Date /	lichael T. Migawa
State of California	
County of <u>San Diago</u>	
On <u>June 18, 2008</u> , before me, <u>La</u> personally appeared <u>Michael T. Michael T</u>	evidence to be the person(s/) whose name(s/) is/are
subscribed to the within instrument and acknow his/her/their authorized capacity(ies), and that by hor the entity upon behalf of which the person(6) act	rledged to me that he/she/they executed the same in his/her/their signature(s) on the instrument the person(s), ed, executed the instrument.
I certify under PENALTY OF PERJURY under the learning paragraph is true and correct.	
WITNESS my hand and official seal.	LAURA L. EAMES Commission # 1794238 Notary Public - California San Diego County My Comm. Brokes Acr 13, 2012
Shubble of Notary Bublic	(Notary Seal)

6/17/08	Rielof H. Giffe
Date	Richard H. Griffey
State of California	
County of <u>San Diago</u>	
On <u>June 17, 2008</u> , before me, <u>L</u> personally appeared <u>Richard H. Gn</u>	Aura L Eames . (Here insert name and title of the officer) ffey
subscribed to the within instrument and ackr	ory evidence to be the person(s) whose name(s) is/are nowledged to me that he/she/they executed the same in by his/her/their signature(s) on the instrument the person(s), acted, executed the instrument.
I certify under PENALTY OF PERJURY under the paragraph is true and correct.	he laws of the State of California that the foregoing
WITNESS my hand and official seal.	LAURA L. EAMES Commission # 1794238 Notary Public - California San Diego County MyComm. Expires Apr 13, 2012 (Notary Seal)
Signature of Notary Public	

9 of 9

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