


FORM PTO-1595 1-31-92		01-17-2001	U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office
12.70.00			
To The Honorable Commissioner of thereof.		101585886	rd the attached documents or copy
1. Name of conveying party(ies): Lex M. Cowser Additional name(s) of conveying party(ies) attached? () YES (X) NO 3. Nature of Conveyance: (X) Assignment () Merger () Security Agreement () Change of Name () Other: Execution Date: December 13, 2000		2. Name and address of receiving party(ies): Name: Isis Pharmaceuticals Inc. Internal Address: Street Address: 2292 Faraday Ave City Carlsbad State California Zip 92008 Additional name(s) & address attached? () YES (X) NO 09742703	
4. Application number(s) or patent number (s): N/A If this document is being filed together with a new application, the execution date of the application is: 12/13/2000			
A. Patent Application No.(s) Not yet assigned		B. Patent No.(s) N/A	
Additional numbers attached? () YES (X) NO			
5. Name and address of party to whom correspondence concerning documents should be mailed: Name: Jane Massey Licata Address: Law Offices of Jane Massey Licata 66 East Main Street Marlton NJ 08053		6. Total number of applications and patents involved: 1 7. Total fee (37 CFR 3.41):\$40.00 () Enclosed (X) Authorized to be charged to deposit account 8. Deposit account number: 500252 (Attach duplicate copy of this page if paying by deposit account)	
DO NOT USE THIS SPACE			
9. Statement and signature. <i>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.</i> <u>Laurel Spear Bernstein / 37,280</u> <u>Laurel Spear Bernstein</u> <u>December 18, 2000</u> Name of Person Signing/Reg.No. Signature Date Total number of pages including cover sheet, attachments, and document:: <u>3</u>			
Mail documents to be recorded with required cover sheet information to:			
Commissioner of Patents and Trademarks Box Assignments Washington, D.C. 20231 Public burden reporting for this sample cover sheet is estimated to average about 30 minutes per document to be recorded including time for reviewing the document and gathering the data needed, and completing and reviewing the sample cover sheet. Send comments regarding this burden estimate to the U.S. Patent and Trademark Office, Office of Information Systems, PK2-1000C, Washington, D.C. 20231, and to the Office of Management and Budget, Paperwork Reduction Project. (0651-0011).			

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A S S I G N M E N T

WHEREAS, I, Lex M. Cowsert, residing at 3008 Newshire Street, Carlsbad, California 92008 hereinafter referred to as the assignor, am a joint inventor of certain inventions or improvements for which I have made application for Letters Patent to the United States, identified as Case No. RTS-0090 entitled **Antisense Modulation of hepsin Expression**; filed concurrently herewith; and

WHEREAS, **Isis Pharmaceuticals, Inc.** hereinafter referred to as the assignee, of **2292 Faraday Ave, Carlsbad, California 92008**, 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:

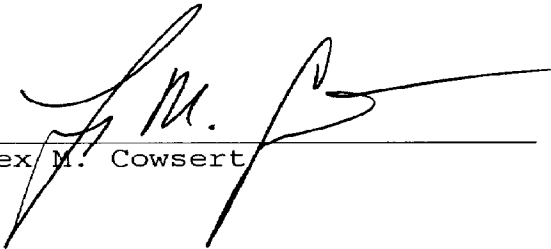
NOW, THEREFORE, for and in consideration of the sum of One Dollar (\$1.00) to each of us in hand paid by said assignee and other good and valuable consideration, the receipt of which is hereby acknowledged, I, the said assignor, have sold, assigned, transferred and set over and by these presents do hereby 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 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 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 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 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 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, I have hereunto set our hands and seals.

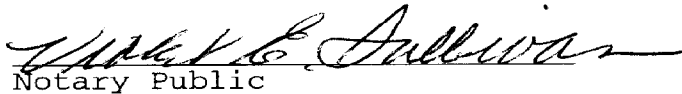
Dated: 12/13/00


Lex M. Cowsert

STATE OF California)
COUNTY OF Santa Clara) ss.

This 13th day of December 2000 before me personally came the above-named Lex M. Cowsert, who executed the foregoing Assignment in my presence and who acknowledged to me that he executed the same of his own free will for the purposes set forth therein.




Notary Public

[SEAL]