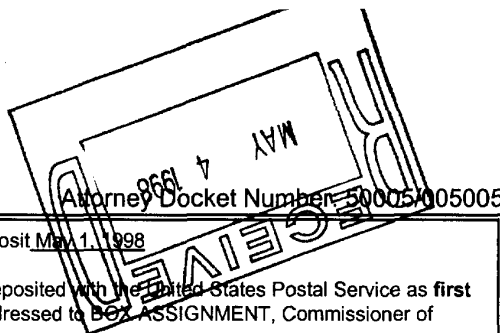


MRD
5-4-98



Substitute Form PTO-1595

Certificate of Mailing: Date of Deposit May 1, 1998


I hereby certify under 37 CFR 1.8(a) that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage on the date indicated above and is addressed to BOX ASSIGNMENT, Commissioner of Patents and Trademarks, Washington, D.C. 20231.

Mary Jane DiPalma
Printed Name

Mary Jane DiPalma
Signature

**RECORDATION FORM COVER SHEET
PATENTS ONLY**

Commissioner of Patents & Trademarks: Please record the attached document.

<p>1. Names of all conveying parties:</p> <p>Edward I. Budowsky, Samuel K. Ackerman, Andrei A. Purnal, and Clark M. Edson</p> <p>Additional names attached: NO</p>	<p>2. Names and addresses of all receiving parties:</p> <p>Pentose Pharmaceuticals, Inc. 45 Moulton Street Cambridge, MA 02138</p> <p>Additional names/addresses attached: NO</p>
<p>3. Nature of conveyance:</p> <p><input checked="" type="checkbox"/> Assignment <input type="checkbox"/> Merger <input type="checkbox"/> Security Agreement <input type="checkbox"/> Change of Name <input type="checkbox"/> Other: _____</p> <p>Execution Date: March 19, 1998</p>	<p>05-18-1998</p>  <p>100713802</p>
<p>4. Application numbers or patent numbers:</p> <p>A. Patent Application Numbers:</p> <p>09/005,606</p>	<p>B. Patent Numbers:</p>
<p>5. Name and address of party to whom correspondence concerning document should be mailed:</p> <p>Paul T. Clark, Reg. No. 30,162 Clark & Elbing LLP 176 Federal Street Boston, MA 02110</p>	<p>6. Total number of applications/patents involved: 1</p> <p>7. Total fee (37 CFR 3.41): \$40.00 <input checked="" type="checkbox"/> Fee enclosed <input type="checkbox"/> Authorized to charge deposit account</p> <p>8. Deposit account number: 03-2095. If the fee above is being charged to deposit account, a duplicate copy of this cover sheet is attached. Please apply any additional charges, or any credits, to Deposit Account No. 03-2095.</p>

05/15/1998 SSMITH 00000215 9005606

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9. Statement and signature: *To the best of my knowledge and belief, the foregoing information is true and correct and the attached is the original document.*

Paul T. Clark
Name of person signing

[Signature]
Signature

May 1, 1998
Date

ASSIGNMENT

For valuable consideration, we,

Full Name of Assignor	City	State (and Country if not USA)
Edward I. Budowsky	Brookline	MA
Samuel K. Ackerman	Weston	MA
Andrei A. Purmal	Waltham	MA
Clark M. Edson	Somerville	MA

hereby assign to

Full Name of Assignee	State of Incorporation	Business Address
Pentose Pharmaceuticals, Inc.	Massachusetts	45 Moulton Street Cambridge, MA 02138

and to its successors and assigns (collectively hereinafter called "the Assignee"), the entire right, title and interest throughout the world in the inventions and improvements which are subject of one or more applications for United States Patent signed by us, identified as:

Title of Application	Filing Date	Serial Number
METHODS AND COMPOSITIONS FOR THE SELECTIVE MODIFICATION OF NUCLEIC ACIDS	January 12, 1998	09/005,606

and we authorize and request the attorneys appointed in said application to hereafter complete this assignment by inserting above the filing date and serial number of said application when known; this assignment including said application, any and all United States and foreign patents, utility models, and design registrations granted for any of said inventions or improvements, and the right to claim priority based on the filing date of said application under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes; and we authorize the Assignee to apply in all countries in my name or in its own name for patents, utility models, design registrations and like rights of exclusion, and for inventors' certificates for said inventions and improvements; and we agree for ourselves and our respective heirs, legal representatives and assigns, without further compensation, to perform such lawful acts and to sign such further applications, assignments, Preliminary Statements and other lawful documents as the Assignee may reasonably request to effectuate fully this assignment.

IN WITNESS WHEREOF, I hereto set my hand and seal at _____
this 19 day of March, 1998



L.S.
EDWARD I. BUDOWSKY

STATE OF Massachusetts

COUNTY OF Middlesex

:ss.

Before me this 19 day of March, 1998 personally appeared **EDWARD I. BUDOWSKY** known to me to be the person whose name is subscribed to the foregoing Assignment, and acknowledged that he/she executed the same as his/her free act and deed for the purposes therein contained.

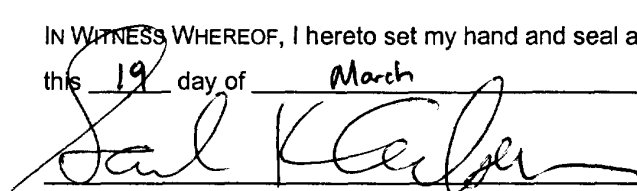


Notary Public

My Commission Expires: 6/2003

[Notary's Seal Here]

IN WITNESS WHEREOF, I hereto set my hand and seal at 45 Moulton St. Cambridge MA
this 19 day of March, 1998



L.S.
SAMUEL K. ACKERMAN

STATE OF Massachusetts

COUNTY OF Middlesex

:ss.

Before me this 19 day of March, 1998, personally appeared **SAMUEL K. ACKERMAN** known to me to be the person whose name is subscribed to the foregoing Assignment, and acknowledged that he/she executed the same as his/her free act and deed for the purposes therein contained.



Notary Public

My Commission Expires: 6/2003

[Notary's Seal Here]

IN WITNESS WHEREOF, I hereto set my hand and seal at 75 Moulton St, Cambridge, MA
this 19 day of March, 1998

[Signature] L.S.
ANDREI A. PURMAL

STATE OF Massachusetts
COUNTY OF Middlesex :ss.

Before me this 19 day of March, 1998, personally appeared **ANDREI A. PURMAL** known to me to be the person whose name is subscribed to the foregoing Assignment, and acknowledged that he/she executed the same as his/her free act and deed for the purposes therein contained.

[Signature]
Notary Public
My Commission Expires: 6/2003

[Notary's Seal Here]

IN WITNESS WHEREOF, I hereto set my hand and seal at 45 Moulton St, Cambridge, Massachusetts
this 19 day of March, 1998

[Signature] L.S.
CLARK M. EDSON

STATE OF Massachusetts
COUNTY OF Middlesex :ss.

Before me this 19 day of MARCH, 1998, personally appeared **CLARK M. EDSON** known to me to be the person whose name is subscribed to the foregoing Assignment, and acknowledged that he/she executed the same as his/her free act and deed for the purposes therein contained.

[Signature]
Notary Public
My Commission Expires: 6/2003

[Notary's Seal Here]