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08-12-1999



Attorney Docket Number
007188--0063-999

TO THE HONORABLE COMMISSIONER OF PATENTS AND TRADEMARKS

Box Assignment
Washington, DC 20231

Please record the attached original documents or copy thereof.

<p>1. Name of conveying party(ies): Cytel Corporation</p> <p>Additional name(s) of conveying party(ies) attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>		<p>2. Name and address of receiving party(ies): Name: <u>Neose Technologies, Inc.</u></p> <p>Address: <u>102 Witmer Road</u> <u>Horsham, PA 19044</u></p> <p>Country (if other than USA): _____</p>							
<p>3. Nature of conveyance:</p> <p><input checked="" type="checkbox"/> Assignment <input type="checkbox"/> Merger</p> <p><input type="checkbox"/> Security Agreement <input type="checkbox"/> Change of Name</p> <p><input type="checkbox"/> Other _____</p> <p>Execution Date: <u>March 26, 1999</u></p>									
<p>4. Application number(s) or patent number(s):</p> <p>If this document is being filed together with a new application, the execution date of the application is: _____</p> <table border="0"><tr><td>A. Patent Application No.(s) <u>08/947,775</u></td><td>B. Patent No.(s) _____</td></tr></table> <p>Additional numbers attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>				A. Patent Application No.(s) <u>08/947,775</u>	B. Patent No.(s) _____				
A. Patent Application No.(s) <u>08/947,775</u>	B. Patent No.(s) _____								
<p>5. Name and address of party to whom correspondence concerning document should be mailed:</p> <p>PENNIE & EDMONDS LLP 1667 K Street, N.W. Washington, D.C. 20006</p>		<p>6. Number of applications and patents involved: <u>1</u></p> <p>7. Total fee (37 CFR 3.41):.....\$ <u>40.00</u> Please charge to the deposit account listed in Section 8.</p> <p>8. Deposit account number: <u>16-1150</u></p>							
<p>08/11/1999 DCDATES 00000205 161150 0894775 01 FC:561 40.00 CH</p> <p>DO NOT USE THIS SPACE</p>									
<p>9. Statement and signature.</p> <p><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></p> <table border="0"><tr><td><u>Wilma F. Triebwasser</u> <u>32,498</u></td><td><u>Wilma F. Triebwasser</u></td><td><u>August 6, 1999</u></td></tr><tr><td>Name of Person Signing Reg. No.</td><td>Signature</td><td>Date</td></tr></table> <p>Total number of pages including cover sheet: <u>5</u></p>				<u>Wilma F. Triebwasser</u> <u>32,498</u>	<u>Wilma F. Triebwasser</u>	<u>August 6, 1999</u>	Name of Person Signing Reg. No.	Signature	Date
<u>Wilma F. Triebwasser</u> <u>32,498</u>	<u>Wilma F. Triebwasser</u>	<u>August 6, 1999</u>							
Name of Person Signing Reg. No.	Signature	Date							

Mail documents to be recorded with required cover sheet information to:
Commissioner of Patents & Trademarks, Box Assignment
Washington, D.C. 20231

JUN - 8 1999

ASSIGNMENT OF PATENTS AND PATENT APPLICATIONS

RECEIVED

ASSIGNMENT OF PATENTS AND PATENT APPLICATIONS ("Assignment") is made as of March 26, 1999 from CYTEL CORPORATION, a Delaware corporation with its address at 9393 Towne Centre Drive, San Diego, CA 92121 (the "Assignor"), to NEOSE TECHNOLOGIES, INC., a Delaware corporation with its address at 102 Witmer Road, Horsham, PA 19044 (the "Assignee").

WHEREAS, the Assignor is the sole and exclusive owner of all right, title and interest in and to the patents and patent applications identified in Schedule A attached hereto, and in and to the inventions that form the subject matter of such patents and patent applications (the "Patents"); and

WHEREAS, pursuant to an Asset Purchase Agreement made as of March 26, 1999, the Assignor has sold, assigned, transferred, delivered and contributed all rights to the Patents to the Assignee and the Assignee has acquired, accepted and received all rights to the Patents from the Assignor.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Assignor hereby agrees as follows:

1. The Assignor hereby assigns and transfers unto the Assignee all right, title and interest in and to the Patents and any divisions, reissues, continuations and extensions thereof, together with all rights and privileges granted and secured thereby, including the right to sue for past acts of infringement and to retain all damages and revenues received from others for past acts of infringement (the "Patent Rights"), the Patent Rights to be held and enjoyed by the Assignee, for its own use and benefit and for the use and benefit of its successors, assigns or other legal representatives, to the end of the term for which the Patents are granted or reissued, as fully and entirely as the same would have been held and enjoyed by the Assignor if this Assignment had not been made.

2. The Assignor hereby represents and covenants that it has full right to convey the entire interest herein assigned and that it has not executed, and will not execute, any agreement in conflict herewith.

3. The Assignor further covenants and agrees that it will upon request, without further or additional consideration, execute and deliver any and all documents, assignments, releases and other papers that may be necessary to perfect title to the Patents in the Assignee, its successors, assigns or legal representatives.

4. The Assignor further covenants and agrees that it will upon request and without further expense of the Assignee, communicate to the Assignee, its successors, assigns and legal representatives any facts relating to the Patents, or to the histories thereof known to it.

IN WITNESS WHEREOF, the Assignor has executed this Assignment this 26th day of March, 1999.

CYTEL CORPORATION,
a Delaware Corporation

By *Virgil Thompson*
Virgil Thompson
President and Chief Executive Officer

State of California :
County of San Diego : SS

On this 26th day of March, 1999, before me personally appeared Virgil Thompson, who being duly sworn, did acknowledge that he is President and Chief Executive Officer of Cytel Corporation, a Delaware corporation, and whose name is subscribed to the foregoing instrument, and that he as such, being authorized so to do, executed the foregoing instrument on behalf of the corporation for the purposes therein set forth and intending that the foregoing instrument be recorded.

(SEAL)



Diana Cortez
Notary Public

My Commission Expires:

Cytel Corporation - Carbohydrate Manufacturing Program - Cytel Patents

P. 1 of 2

No.	Title	Inventor(s)	Country	Filed	Serial #	Status	Issue Date	Patent #	Licensor
055	Combined use of b-galactosidase and sialyltransferase coupled with in situ regeneration of cnp-sialic acid for one pot synthesis of oligosaccharides	Wong, Gaeta	USA	5/4/93	08/057,526	Issued	12/20/94	5,374,541	Cytel/ Scripps
055	One pot synthesis of oligosaccharides using multiple enzymes and CMP sialic acid regenerating system	Wong, Gaeta	EPO	05/04/94	94916687.0	In Prosecution			Cytel/ Scripps
055 JP	One pot synthesis of oligosaccharides using multiple enzymes and CMP sialic acid regenerating system	Wong, Gaeta	Japan	05/04/94	5-524667	In Prosecution			Cytel/ Scripps
055	One pot synthesis of oligosaccharides using multiple enzymes and CMP sialic acid regenerating system	Wong, Gaeta	PCT	05/04/94	PCT/ US94/05067				Cytel/ Scripps
062	Use of trans-sialidase and sialyltransferase for synthesis of sialyl2-3bGalactosides	Ilo, Paulson	USA	5/4/93	08/057,528	Issued	04/04/95	5,409,817	
062 IL	Use of trans-sialidase and sialyltransferase for synthesis of sialyl2-3bGalactosides	Ilo, Paulson	Israel	5/4/93	109493	Abandoned			
062 MX	Use of trans-sialidase and sialyltransferase for synthesis of sialyl2-3bGalactosides	Ilo, Paulson	Mexico			Issued	04/25/97	1,845,24	
062	Use of trans-sialidase and sialyltransferase for synthesis of sialyl2-b3Galactosides	Ilo, Paulson	PCT	05/04/94	PCT/ US94/05130	Abandoned			
PC	Enzymatic synthesis of oligosaccharides	DeFrees, Bayer, Racliffe	USA	04/11/95	08/419,659	Issued	3/2/99	5,876,980	
083.1	Improved enzymatic synthesis of oligosaccharides	DeFrees, Bayer, Racliffe	USA	07/11/95	60/001,035	Abandoned			
083.2	Improved enzymatic synthesis of oligosaccharides	DeFrees, Bayer, Racliffe	USA	04/10/96	08/628,543	In Prosecution			
083.2 CA	Improved enzymatic synthesis of oligosaccharides	DeFrees, Bayer, Racliffe	Canada	04/10/96	2281120	In Prosecution			
083.2 EP	Improved enzymatic synthesis of oligosaccharides	DeFrees, Bayer, Racliffe	EPO -	04/10/96	9691162834	In Prosecution			
083.2 PC	Improved enzymatic synthesis of oligosaccharides	DeFrees, Bayer, Racliffe	PCT	04/10/96	PCT/ US/04790				
089	Production of galactosyltransferase	Carl Perez	USA	03/27/96	08/622,753	Issued	1/5/99	5,856,159	
089 PC	Production of galactosyltransferase	Carl Perez	PCT	03/27/96	PCT/ US97/05035	Abandoned			
090	Improved enzymatic synthesis of glycosidic linkages	Bayer, DeFrees	USA	04/11/95	08/419,669	Issued	3/17/98		
090.1	Improved enzymatic synthesis of glycosidic linkages	Bayer, DeFrees	USA	04/10/96	08/628,545	Issue Fee Due 4/22/99			
090.1 CA	Improved enzymatic synthesis of glycosidic linkages	Bayer, DeFrees	Canada	04/10/96	2218246	In Prosecution			
090.1 EP	Improved enzymatic synthesis of glycosidic linkages	Bayer, DeFrees	EPO		96910772.1	In Prosecution			
090.1 PC	Improved enzymatic synthesis of glycosidic linkages	Bayer, DeFrees	PCT	04/10/96	96910772.1				
104 PC	Use of 2-deoxyribose-5-phosphate aldolase to prepare 2-deoxyribose, analogues and derivatives	Chi-huey Wong et al.	PCT	03/26/96	PCT/ US96/04062				Cytel/ Scripps
128	Improved Expression Vectors	Jody Schultz	USA	11/08/96	60/029,545	Abandoned			
128.1	Improved Expression Vectors	Jody Schultz	USA	11/07/97	08/965,850	In Prosecution			

Cytel Corporation - Carbohydrate Manufacturing Program - Cytel Patents

P. 2 of 2

No.	Title	Inventor(s)	Country	Filed	Serial #	Status	Issue Date	Patent #	Licenser
128.1 PC	Improved Expression Vectors	Jody Schultz	PCT	11/07/97	PCT/ US97/20528	In Prosecution			
130	Nucleic acids encoding GDP-fucose pyrophosphorylase	Kelcham	USA	4/9/97	08/826,964	Abandoned			
130	Nucleic acids encoding GDP-fucose pyrophosphorylase	Kelcham	Canada	10/5/98	225,1465	In Prosecution			
130 EP	Nucleic acids encoding GDP-fucose pyrophosphorylase	Kelcham	EPO	4/10/97	97918558.4	In Prosecution			
130 JP	Nucleic acids encoding GDP-fucose pyrophosphorylase	Kelcham	Japan	4/10/97	9-536501	In Prosecution			
130 PC	Nucleic acids encoding GDP-fucose pyrophosphorylase	Kelcham	PCT	4/10/97	PCT/ US97/05968				
130.1	Nucleic acids encoding GDP-fucose pyrophosphorylase	Kelcham, Elbein, Drake, Pastuszak	USA	10/30/98	08/826,964 CPA	In Prosecution			
143	Carbohydrate purifications from glycosyltransferase reactions using reverse osmosis/ nanofiltration	DeFrees	USA	10/10/96	60/028,226				
143.1	Carbohydrate purifications from glycosyltransferase reactions using reverse osmosis/ nanofiltration	DeFrees	USA	10/9/97	08/947,775	In Prosecution			
143.1 PC	Carbohydrate purifications from glycosyltransferase reactions using reverse osmosis/ nanofiltration	DeFrees	PCT	10/09/97	US/PCT97/1188 01	In Prosecution			
146	Practical in vitro Sialylation of Recombinant Glycoproteins	Paulson, DeFrees, Sjoberg	USA	01/16/97	60/035,710				
146.1	Practical in vitro Sialylation of Recombinant Glycoproteins	Paulson, DeFrees, Sjoberg	USA	01/15/98	09/007,741	In Prosecution			
146.1 PC	Practical in vitro Sialylation of Recombinant Glycoproteins	Paulson, Bayer, Sjoberg	PCT	01/15/98	PCT/ US98/00835	In Prosecution			
163	Enzymatic Synthesis of Gangliosides	DeFrees	USA	12/01/97	60/067,693				
163 PC	Enzymatic Synthesis of Gangliosides	DeFrees	PCT	12/1/98	PCT/ US98/25470	In Prosecution			
163.1	Enzymatic Synthesis of Gangliosides	DeFrees	USA	11/30/98	09/203,200	In Prosecution			
164	Enzymatic conversion of GDP-Mannose to GDP-Fucose	Sjoberg	USA	1/15/98	60/071,076				
164.1	Enzymatic conversion of GDP-Mannose to GDP-Fucose	Sjoberg	USA	1/14/99	09/231,905	In Prosecution			
164.1 PC	Enzymatic conversion of GDP-Mannose to GDP-Fucose	Sjoberg	PCT	1/14/99	PCT/ US99/00893	In Prosecution			
191	Low cost manufacture of oligosaccharides	DeFrees	USA	11/18/98	60/109,031				
191.1	Low cost manufacture of oligosaccharides	DeFrees	USA	11/19/98	60/109,096				