Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
Shawn DeFrees	07/09/2007
David A Zopf	07/06/2007
Robert J. Bayer	07/12/2007
Caryn Bowe	07/12/2007
David James Hakes	07/06/2007
Xi Chen	07/13/2007

RECEIVING PARTY DATA

Name:	Neose Technologies, Inc.
Street Address:	102 Rock Road
City:	Horsham
State/Country:	PENNSYLVANIA
Postal Code:	19044

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	11701949

CORRESPONDENCE DATA

500349140

Fax Number: (650)843-4001

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Correspondent Name: Morgan Lewis & Bockius LLP

Address Line 1: 2 Palo Alto Square

3000 El Camino Real, Suite 700 Address Line 2: Palo Alto, CALIFORNIA 94306 Address Line 4:

ATTORNEY DOCKET NUMBER: 40853-01-5083-US3

PATENT

REEL: 019793 FRAME: 0054

NAME OF SUBMITTER:	Jeffry S. Mann
Total Attachments: 8	
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(Rev. 10-02)		U.S. Department of Commerce U.S. Patent and Trademark Office
	ENTS ONLY	
Tab settings ⇔⇔ ▼ ▼	V V	∀
To the Honorable Commissioner of Patents and Trade 1. Name of conveying party(ies):	2. Name and address of	
Shawn DeFrees David A. Zopf	Name: Neose Tech Street Address: 102	-
Additional name(s) of conveying party(ies attached? ⊠ Yes □ No.)	State: PA ZIP: 19044
3. Nature of conveyance:		
	Additional name(s) and	address(es) attached? ☐ Yes ☒ No
☐ Security Agreement ☐ Change of Nar	me	
Other:		
Execution Dates: 07/09/07, 07/06/07, 07/12/07, 07/12/07 07/06/07 and 07/13/07, respectively	7,	
Application number(s) or patent number(s):		
If this document is being filed together with a new applica	ation, the execution date of the ap	oplication is:
A. Patent Application No(s): 11/701,949	B. Patent No(s):	
	bers attached? ☐ Yes ☒ No	
Name and address of party to whom correspondence concerning document should be mailed:	6. Total number of appl	lications and patents involved 1
Name: Jeffry S. Mann, Ph.D. Morgan, Lewis & Bockius LLP	7. Total fee (37 CFR 3.	41): <u>\$40.00</u>
Two Palo Alto Square 3000 El Camino Real, Ste. 700	☐ Enclosed	
Palo Alto, CA 94306 Tel. (415) 442-1000 Direct Dial: (415) 442-1119	⊠ Authorized	to be charged to deposit account
eFAX: (650) 843-4001 e-mail: jmann@morganlewis.com	8. Deposit account num	nber: 50-0310
	(Attach duplicate copy of th	nis page if paying by deposit account)
DO NOT USE THIS SPACE		
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.		
Jeffry S. Mann, Ph.D.	Signature	September 6, 2007
Name of Person Signing Atty. Reg. No. 42,837		Date
Total number of pages incl	luding cover sheet, attachments and	documents: 7

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

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Alexandria, VA 22313-1450

Form PTO-1595 Recordation Form Cover Sheet Patents Only Page 2

- Additional name(s) of conveying party(ies): (Continued from Page 1)
 - 3. Robert J. Bayer
 - 4. Caryn Bowe
 - 5. David James Hakes
 - 6. Xi Chen
- Additional name(s) and address(es) of receiving party(ies): (Continued from Page 1)
- Additional application number(s) or patent number(s): (Continued from Page 1)
 - A. Patent Application No.(s)

B. Patent No.(s)

1-SF/7597403.1

Attorney Docket No.: 040853-01-5083-US03 Client Reference No.: NEO00265 US1C1

ASSIGNMENT OF PATENT APPLICATION

JOINT

WHEREAS, Shawn DeFrees, 126 Filly Drive, North Wales, PA 19454, David A. Zopf, 560 Beechtree Lane, Wayne, PA 19087, Robert J. Bayer, 6105 Dirac Street, San Diego, California 92122, David James Hakes, 14 Fern Avenue, Willow Grove, PA 19090, Caryn Bowe, 310 Maple Avenue, Doylestown, Pennsylvania 18901, and Xi Chen, 997 Hunter Lane Woodland CA 95776 hereinafter referred to as "Assignors," are the inventors of the invention described and set forth in the belowidentified patent application:

Title of Invention: ERYTHROPOIETIN: REMODELING AND

GLYCOCONJUGATION OF ERYTHROPOIETIN

Filing Date: February 2, 2007

Application No.: 11/701,949 and

WHEREAS, Neose Technologies, Inc., located at 102 Rock Road, Horsham, PA 19044, hereinafter referred to as "ASSIGNEE," is desirous of acquiring an interest in the invention and application and in any U.S. Letters Patent and Registrations which may be granted on any patent application claiming priority from the same;

For good and valuable consideration, receipt of which is hereby acknowledged by Assignors, Assignors have assigned, and by these presents does assign to Assignee all right, title and interest in and to the invention and application and to all foreign counterparts (including patent, utility model and industrial designs), and in and to any Letters Patent and Registrations which may hereafter be granted on any patent application claiming priority from the same in the United States and all countries throughout the world, and to claim the priority from the application as provided by the Paris Convention. The right, title and interest is to be held and enjoyed by Assignee and Assignee's successors and assigns as fully and exclusively as it would have been held and enjoyed by Assignors had this Assignment not been made, for the full term of any Letters Patent and Registrations which may be granted thereon, or of any division, renewal, continuation in whole or in part, substitution, conversion, reissue, prolongation or extension thereof.

Assignors further agree that Assignors will, without charge to Assignee, but at Assignee's expense, (a) cooperate with Assignee in the prosecution of U.S. Patent applications and foreign counterparts on the invention and any improvements, (b) execute, verify, acknowledge and deliver all such further papers, including applications and instruments of transfer, and (c) perform such other acts as Assignee lawfully may request to obtain or maintain Letters Patent and Registrations for the invention and improvements in any and all countries, and to vest title thereto in Assignee, or Assignee's successors and assigns.

Assignors hereby authorize and request Morgan, Lewis & Bockius LLP, One Market, Spear Street Tower, San Francisco, CA 94105, to insert herein above the application number and filing date of said application when known.

1-SF/7571886.1

Attorney Docket No.: 040853-01-5083-US03 Page 2 IN TESTIMONY WHEREOF, Assignors have signed his/her names on the dates indicated. SHAWN DEFREES STATE OF PENNSYLVANIA SS. **COUNTY OF MONTGOMERY** On 1/9/07, before me, Lynne E, Conklin personally appeared Shawn DeFrees, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument, and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument. WITNESS my hand and official seal. NOTARIAL SEAL LYNNE E CONKLIN Zyrre E. Corklin NOTARY PUBLIC **Notary Public** HORSHAM TWP, MONTGOMERY COUNTY My Commission Expires Oct 20, 2010 Dated: 6 July 2007 STATE OF PENNSYLVANIA On 1/6/07, before me, Lywe E. Conklin personally appeared David A. Zopf, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument, and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument. WITNESS my hand and official seal. Signe E. Corkler NOTARY PUBLIC

Assignment

Assignment Attorney Docket No.: 040853-01 Page 3	-5083-US03	
Dated: 14/2, 200	7	
		ROBERT J. BAYER
STATE OF CALIFORNIA)	
COUNTY OF) ss.)	
whose name is subscribed to the	within instrun ity, and that by	personally appeared Robert J. ne on the basis of satisfactory evidence) to be the person nent, and acknowledged to me that he/she executed the y his/her signature on the instrument the person, or the executed the instrument.
WITNESS my hand and official s	seal.	
My Commission Expires:		NOTARY PUBLIC
Dated:		
		CARYN BOWE
STATE OF PENNSYLVANIA)	
COUNTY OF) ss.)	
whose name is subscribed to the	within instrum ty, and that by	personally appeared Caryn ne on the basis of satisfactory evidence) to be the person nent, and acknowledged to me that he/she executed the y his/her signature on the instrument the person, or the xecuted the instrument.
WITNESS my hand and official s	seal.	
		NOTARY PUBLIC
My Commission Expires:		

1-SF/7571886.1

Assignment Atterney Decket No. 1040852 01 5082 US02
Attorney Docket No.: 040853-01-5083-US03 Page 3
Dated:
ROBERT J. BAYER
STATE OF CALIFORNIA)
COUNTY OF) ss.
On, before me, personally appeared Robert J. Bayer, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument, and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.
WITNESS my hand and official seal.
My Commission Expires:
Dated: Hispania Caryn Rows
STATE OF PENNSYLVANIA)
COUNTY OF Mortgomery) ss.
On 7/12/07, before me, Lynne E. Conklin personally appeared Caryn Bowe, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument, and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.
WITNESS my hand and official seal.
NOTARIAL SEAL LYNNE E CONICIN Notary Public HORSHAM TWP, MONTGOMERY COUNTY MY Commission Expires Oct 20, 2010 NOTARY PUBLIC

Assignment Attorney Docket No.: 040853-01-5083-US03 Page 4	
Dated: 06- July 2007	David James Hakes
STATE OF PENNSYLVANIA) ss.	
COUNTY OF Montgomery	
person whose name is subscribed to the within	personally appeared David to me on the basis of satisfactory evidence) to be the instrument, and acknowledged to me that he/she executed to by his/her signature on the instrument the person, or the secuted the instrument.
WITNESS my hand and official seal.	
NOTABLAL SEAL LYNNE E CONGLIN NOTORY PUBLIC HORSHAM TWP, MONTGOMERY COUNTY MY Commission, Expires Oct 20, 2010	NOTARY PUBLIC
Dated:	
	XI CHEN
STATE OF CALIFORNIA)	
COUNTY OF) ss.	
name is subscribed to the within instrument, an his/her authorized capacity, and that by his/her behalf of which the person acted, executed the	personally appeared Xi Chen, e basis of satisfactory evidence) to be the person whose d acknowledged to me that he/she executed the same in signature on the instrument the person, or the entity upon instrument.
WITNESS my hand and official seal.	
My Commission Expires:	NOTARY PUBLIC

Assignment Attorney Docket No.: 040853-01-5083-US03 Page 4	
Dated:	
	DAVID JAMES HAKES
STATE OF PENNSYLVANIA) ss.	
COUNTY OF)	
person whose name is subscribed to the within i	personally appeared David ed to me on the basis of satisfactory evidence) to be the instrument, and acknowledged to me that he/she executed to by his/her signature on the instrument the person, or the secuted the instrument.
WITNESS my hand and official seal.	
My Commission Expires:	NOTARY PUBLIC
Dated: July 13, 2007	Chen Xi XI CHEN
STATE OF CALIFORNIA)	
COUNTY OF) ss.	
name is subscribed to the within instrument, and	personally appeared Xi Chen, e basis of satisfactory evidence) to be the person whose d acknowledged to me that he/she executed the same in signature on the instrument the person, or the entity upon instrument.
	NOTARY PUBLIC
My Commission Expires:	

1-SF/7571886.1

PATENT REEL: 019793 FRAME: 0063

RECORDED: 09/06/2007