

10-09-2002



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OMB No. 0651-0027 (exp. 5/31/2002)

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To the Honorable Commissioner of Patents and Trademarks: Please record the attached original documents or copy thereof.

1. Name of conveying party(ies): **BioStratum AB** **10-7-02**
 Karolinska Institute
 S-171 77 Stockholm
 Sweden

2. Name and address of receiving party(ies)
 Name: BioStratum, Inc.
 Internal Address: _____

 Street Address: 4620 Creekstone Drive
Suite #200
 City: Durham State: NC Zip: 27703

Additional name(s) of conveying party(ies) attached? Yes No

3. Nature of conveyance:
 Assignment Merger
 Security Agreement Change of Name
 Other _____
 (See attached)

Execution Date: December 27, 2001

Additional name(s) & address(es) attached? Yes No

4. Application number(s) or patent number(s):
 If this document is being filed together with a new application, the execution date of the application is: _____

A. Patent Application No.(s) **PLEASE REFER TO ATTACHED EXHIBIT A**
 B. Patent No.(s) **PLEASE REFER TO ATTACHED EXHIBIT A**

Additional numbers attached? Yes No

5. Name and address of party to whom correspondence concerning document should be mailed:
 Name: Brian G. Bembenick
 Internal Address: _____

 Street Address: 1100 Superior Avenue
7th Floor
 City: Cleveland State: OH Zip: 44114

6. Total number of applications and patents involved: 16

7. Total fee (37 CFR 3.41).....\$ 640.00
 Enclosed
 Authorized to be charged to deposit account

8. Deposit account number:
06-0308
 (Attach duplicate copy of this page if paying by deposit account)

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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.

Brian G. Bembenick *Brian G. Bembenick* Oct. 1, 2002
 Name of Person Signing Signature Date

Total number of pages including cover sheet, attachments, and documents:

10/06/2002 LMUELLER 00000043 08692989
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Mail documents to be recorded with required cover sheet information to:
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 Washington, D.C. 20231

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to Assistant Commissioner for Patents, Washington, DC 20231, on 10-1-02
Carol E. Schuetter
 (SIGNATURE)

PATENT
REEL: 013352 FRAME: 0287

EXHIBIT A

U.S. PATENT NUMBER OR
APPLICATION SERIAL NUMBER

08/692,989

09/167,894

09/663,147

09/759,622

4,677,058

4,808,528

4,816,400

5,114,840

5,354,690

5,593,900

5,660,982

5,691,197

5,871,464

6,063,901

6,143,505

6,207,811

ASSIGNMENT

In consideration of \$413,000 (US), paid in the form of a promissory note issued to assignor hereunder by the assignee hereunder, the receipt and sufficiency whereof are hereby acknowledged, BioStratum AB ("AB"), a Swedish corporation, hereby assigns to:

BioStratum, Incorporated, a corporation of the state of Delaware

its successors and assigns (hereinafter "BioStratum"), the entire right, title and interest in and to any and all intellectual property of AB, whether entirely or partially owned or held by AB, and whether formally or informally owned or held by AB, (1) including, without limitation, any and all patent properties, trademark/service mark properties, copyright properties, trade secrets, inventions and improvements, and (2) further including, without limitation, any right, title and interest in and to the patents and applications listed in Appendix 1, together with the inventions or improvements disclosed therein.

AB hereby authorizes and requests the Commissioner of Patents and Trademarks of the relevant country to issue Letters Patent on any of the pending applications for Letters Patent to said assignee.

AB hereby authorizes and requests the attorneys of record in said pending applications for Letters Patent, and/or any and all other applications, both United States and foreign, which AB may file, either solely or jointly with others, on said invention or improvements, to insert in this assignment the filing date and serial number of said applications when officially known, and the date of execution of the applications.

AB warrants itself to be the owner of the entire right, title and interest in said invention or improvements and to have the right to make this assignment, and further warrants that there are no outstanding prior assignments, licenses, or other encumbrances on the interest herein assigned.

For said considerations AB hereby agrees, upon the request and at the expense of said assignee, its successors and assigns, to execute any and all divisional, continuation and substitute applications for said invention or improvements, and any necessary oath, affidavit or declaration relating thereto, and any application for the reissue or extension of any Letters Patent that may be granted upon said application, and any and all applications and other documents for Letters Patent in foreign countries on said invention or improvements, that said assignee, its successors or assigns may deem necessary or expedient, and for the said considerations AB authorizes said assignee to apply for patents for said invention or improvements in its own name in such countries where such procedure is proper and further agrees, upon the request of said assignee, its successors and assigns, to cooperate to the best of the ability of AB with said assignee, its successors and assigns, in any proceedings or transactions involving such applications or patents, including the preparation and execution of preliminary statements, giving and producing

evidence, and performing any and all other acts necessary to obtain, maintain and enforce said Letters Patent, both United States and foreign, and vest all rights therein hereby conveyed in the assignee, its successors and assigns, whereby said Letters Patent will be held and enjoyed by the said assignee, its successors and assigns, to the full end of the term for which said Letters Patent will be granted, as fully and entirely as the same would have been held and enjoyed by AB if this assignment had not been made.

WITNESS my hand and seal this 27th day of December, 2001.

BioStratum AB

By: _____

Name: _____

Title: _____

By: _____

Name: _____

Title: _____

APPENDIX I: BIOSTRATUM AB PATENTS AND PATENT APPLICATIONS

ATTORNEY DOCKET NO.	TITLE	COUNTRY	PATENT NO.	ISSUE DATE	SERIAL NUMBER	FILING DATE	STATUS
ODS 2 001	DETECTING MALIGNANT CELLS WITH MONOCLONAL ANTIBODIES SPECIFIC TO TYPE IV COLLAGENASE ENZYME	United States	4,677,058	6/30/87	496,230	6/19/83	Issued
ODS 2 001-1	ANTIBODY COMPOSITION FOR THE DETECTION OF MALIGNANT CELLS WITH METASTATIC CELL ACTIVITY	United States	4,808,528	2/28/89	067,598	6/26/87	Issued
ODS 2 001-2	BASEMENT MEMBRANE COLLAGEN DEGRADING ENZYME AND METHOD OF PURIFYING SAME	United States	4,816,400	3/28/89	067,595	6/26/87	Issued
ODS 2 001CA	IMMUNOLOGICAL METHOD FOR THE DETERMINATION OF METASTATIC CELL ACTIVITY	Canada	1,230,052	12/8/87	454,194	5/1/84	Issued
TRV 2 002	METHOD FOR DETERMINING THE NUCLEOTIDE SEQUENCE OF A NOVEL $\alpha 5(\text{IV})$ CHAIN OF HUMAN TYPE IV COLLAGEN	United States	5,114,840	5/19/92	377,238	7/7/89	Issued
TRV 2 002PCT	METHOD FOR DETERMINING THE NUCLEOTIDE SEQUENCE OF A NOVEL $\alpha 5(\text{IV})$ CHAIN OF HUMAN TYPE IV COLLAGEN	International			PCT/US90/ 03784	7/5/90	Abandoned
TRV 2 003	IMMUNOLOGICAL METHODS FOR THE DETECTION OF THE HUMAN TYPE IV COLLAGEN $\alpha 5$ CHAIN	United States	5,354,690	10/11/94	630,563	12/20/90	Issued
TRV 2 003-1	IMMUNOLOGICAL METHODS FOR THE DETECTION OF THE HUMAN TYPE IV COLLAGEN $\alpha 5$	United States	5,593,900	1/14/97	321,084	10/11/94	Issued

ATTORNEY DOCKET NO.	TITLE	COUNTRY	PATENT NO.	ISSUE DATE	SERIAL NUMBER	FILING DATE	STATUS
TRV 2 003-1-2	IMMUNOLOGICAL METHODS FOR THE DETECTION OF THE HUMAN TYPE IV COLLAGEN $\alpha 5$ CHAIN	United States			782,658	1/14/97	Abandoned
TRV 2 004	CHARACTERIZATION OF THE 3' HALF OF THE HUMAN TYPE IV COLLAGEN $\alpha 5$ GENE WHICH IS AFFECTED IN THE ALPORT SYNDROME	United States					Never Filed
TRV 2 005	METHOD FOR DETERMINING THE NUCLEOTIDE SEQUENCE OF THE GENE FOR THE $\alpha 5$ (IV) CHAIN OF HUMAN TYPE IV COLLAGEN	United States			635,475	12/28/90	Abandoned
TRV 2 005-1	METHOD FOR DETERMINING THE NUCLEOTIDE SEQUENCE OF THE GENE FOR THE $\alpha 5$ (IV) CHAIN OF HUMAN TYPE IV COLLAGEN	United States			346,336	11/29/94	Abandoned
TRV 2 005-1-1	METHOD FOR DETERMINING THE NUCLEOTIDE SEQUENCE OF THE GENE FOR THE $\alpha 5$ (IV) CHAIN OF HUMAN TYPE IV COLLAGEN	United States			692,989	8/7/96	Abandoned
TRV 2 005-1-1-1	METHOD FOR DETERMINING THE NUCLEOTIDE SEQUENCE OF THE GENE FOR THE $\alpha 5$ (IV) CHAIN OF HUMAN TYPE IV COLLAGEN	United States			692,989	8/7/96	Abandoned
TRV 2 005-1-1-1-1	METHOD FOR DETERMINING THE NUCLEOTIDE SEQUENCE OF THE GENE FOR THE $\alpha 5$ (IV) CHAIN OF HUMAN TYPE IV COLLAGEN	United States			692,989	8/7/96	Abandoned

ATTORNEY DOCKET NO.	TITLE	COUNTRY	PATENT NO.	ISSUE DATE	SERIAL NUMBER	FILING DATE	STATUS
TRV 20005-1-1-1-1-1	CHAIN OF HUMAN TYPE IV COLLAGEN	United States					
TRV 20005-1-1-1-1-1-1	METHOD FOR DETERMINING THE NUCLEOTIDE SEQUENCE OF THE GENE FOR THE α5(IV) CHAIN OF HUMAN TYPE IV COLLAGEN	United States			692,989	9/10/01	Pending (CPA Application)
TRV 2 009	ISOLATED DNA SEQUENCE FOR A NOVEL MACROPHAGE RECEPTOR WITH A COLLAGENOUS DOMAIN	United States	5,691,197	11/25/97	392,367	2/21/95	Issued
TRV 2 009-2	MACROPHAGE RECEPTOR WITH A COLLAGENOUS DOMAIN	United States	6,063,901	5/16/00	893,467	7/11/97	Issued
TRV 2 009-2-2	ISOLATED DNA FOR A NOVEL MACROPHAGE RECEPTOR WITH A COLLAGENOUS DOMAIN AND THE POLYPEPTIDE CHAIN ENCODED BY SUCH A SEQUENCE	United States			571,115	5/12/00	Pending
TRV 2 010	PERFUSION APPARATUS AND METHODS FOR PHARMACEUTICAL DELIVERY	United States			442,189	5/16/95	Abandoned
TRV 2 010-1	PERFUSION APPARATUS AND METHODS FOR PHARMACEUTICAL DELIVERY	United States	5,871,464	2/16/99	761,793	12/6/96	Issued
TRV 2 010-1-3	PERFUSION APPARATUS AND METHODS FOR PHARMACEUTICAL DELIVERY	United States					Application Drafted - Awaiting Inventor's Comments
TRV 2 010-1-1	PERFUSION APPARATUS AND METHODS FOR PHARMACEUTICAL DELIVERY	United States			167,894	10/7/98	Pending

ATTORNEY DOCKET NO.	TITLE	COUNTRY	PATENT NO.	ISSUE DATE	SERIAL NUMBER	FILING DATE	STATUS
TRV 20010-1-1-3	PERFUSION APPARATUS AND METHODS FOR PHARMACEUTICAL DELIVERY	United States			10/004,161	11/15/01	Pending
TRV 2 010-3	METHOD FOR PHARMACEUTICAL DELIVERY	United States			952,501	3/23/98	Allowed Issue fee paid
TRV 2 010-3-3		United States			609,150	6/30/00	Pending
TRV 2 010-3BP	METHOD FOR PHARMACEUTICAL DELIVERY	European Patent Office			96913661.3	5/16/96	Pending
TRV 2 010-3PCT	METHOD FOR PHARMACEUTICAL DELIVERY	International			PCT/IB96/00463	5/16/96	Expired
TRV 2 011	NEPHRIN GENE AND PROTEIN	United States	6,207,811	3/27/01	040,774	3/18/98	Issued
TRV 2 011AU	NEPHRIN GENE AND PROTEIN	Australia			30877/99	3/16/99	Pending
TRV 2 011CA	NEPHRIN GENE AND PROTEIN	Canada			99912515.6	3/16/99	Pending
TRV 2 011EP	NEPHRIN GENE AND PROTEIN	European Patent Office			2000-536753	3/16/99	Pending
TRV 2 011JP	NEPHRIN GENE AND PROTEIN	Japan				3/16/99	Pending
TRV 2 011MX	NEPHRIN GENE AND PROTEIN	Mexico			PA/a/2000/009074	3/16/99	Pending
TRV 2 011PCT	NEPHRIN GENE AND PROTEIN	International			PCT/US99/05578	3/16/99	Expired
TRV 20011-2	NEPHRIN GENE AND PROTEIN	United States			09/759,622	1/12/2001	Pending
TRV 2 012P (Provisional)	NEPHRIN PROTEIN LOCALIZATION TO THE GLOMERULAR FILTRATION BARRIER	United States			60/122,573	3/2/99	Expired
TRV 2 012PCT	NEPHRIN PROTEIN LOCALIZATION TO THE	International			PCT/US00/05507	3/2/00	Expired

ATTORNEY DOCKET NO.	TITLE	COUNTRY	PATENT NO.	ISSUE DATE	SERIAL NUMBER	FILING DATE	STATUS
TRV 2 0012	NEPHRIN PROTEIN LOCALIZATION TO THE GLOMERULAR FILTRATION BARRIER	United States			09/914,826	08/31/01	Pending
TRV 2 013	LAMININ CHAINS: DIAGNOSTIC USES	United States	5,660,982	8/26/97	317,450	10/4/94	Issued
TRV 2 013-2	LAMININ CHAINS: DIAGNOSTIC AND THERAPEUTIC USE	United States	6,143,505	11/7/00	800,593	2/18/97	Issued
TRV 2 013-2-1	LAMININ CHAINS: DIAGNOSTIC AND THERAPEUTIC USE	United States			663,147	9/15/00	Pending
TRV 2 013-2-1-3	LAMININ CHAINS: DIAGNOSTIC AND THERAPEUTIC USE	United States					Draft in progress
TRV 2 013PCT	LAMININ CHAINS: DIAGNOSTIC AND THERAPEUTIC USE	International			PCT/EP95/03918	10/4/95	Expired
TRV 2 013AU	LAMININ CHAINS: DIAGNOSTIC AND THERAPEUTIC USE	Australia	699,183	10/13/98	37451/95	10/4/95	Issued
TRV 2 013CA	LAMININ CHAINS: DIAGNOSTIC AND THERAPEUTIC USE	Canada			2,201,865	10/4/95	Pending
TRV 2 013EP	LAMININ CHAINS: DIAGNOSTIC AND THERAPEUTIC USE	European Patent Office	784,703	7/14/99	95935428.3	10/4/95	Issued Designating: Austria, Belgium, Denmark, France, Germany, Great Britain, Greece, Ireland, Italy, Luxembourg, Monaco, The Netherlands, Portugal, Spain,

ATTORNEY DOCKET NO.	TITLE	COUNTRY	PATENT NO.	ISSUE DATE	SERIAL NUMBER	FILING DATE	STATUS
TRV 2 014P <i>(Provisional)</i>	METHOD FOR INHIBITING THE MIGRATION OF CANCER CELLS	United States			60/175,005	1/7/00	Expired <i>Sweden, & Switzerland</i>
TRV 2 014	METHOD FOR INHIBITING THE MIGRATION OF CANCER CELLS	United States			09/756,071	1/8/2001	Pending
TRV 2 015	LAMININ CHAINS: DIAGNOSTIC AND THERAPEUTIC USE	United States					Application Drafted - Awaiting Inventor's Comments
TRV 2 016P <i>(Provisional)</i>	PRIMARY STRUCTURE AND EXPRESSION OF A NOVEL HUMAN LAMININ ALPHA 4 CHAIN	United States			60/016,508	4/30/96	Expired
TRV 2 016	NOVEL HUMAN LAMININ ALPHA 4 CHAIN	United States			848,318	4/30/97	Abandoned
TRV 2 017P <i>(Provisional)</i>	CRYSTAL STRUCTURE OF HUMAN MATRIX METALLOPROTEINASE 2	United States			60/137,742	6/2/99	Expired
TRV 2 018P <i>(Provisional)</i>	PERFUSION APPARATUS AND METHODS FOR PHARMACEUTICAL DELIVERY	United States			60/142,251	7/2/99	Expired - See TRV 2 010-3-3
99,274	April 30, 1999 60/131,720	Tygyvason and Hndson, <i>Recombinant Lamitins to Accelerate Wound Repair and Promote Tissue Regeneration</i>		Converted into 99,274-D/D1			
99,274-A	August 19, 1999 60/149,738	Tygyvason and Fox, "Prevention of Restenosis Through Basement Membrane Directed Blood Vessel Repair"		Converted into 99,274-B/B1; C/C1; and D/D1			
99,274-D	April 28, 2000	Laminin 8 and methods for its use,		Pending			

(US)	09/561,818	Kortessmaa and Tyggyvason	
99,274-D1 (PCT)	April 28, 2000 PCT/US00/1543	Laminin 8 and methods for its use, Kortessmaa and Tyggyvason	Converted into National Phase Applications
99,274-D1-EP (Europe)	April 28, 2000 TBA	Laminin 8 and methods for its use, Kortessmaa and Tyggyvason	Pending
99,274-D1-IP (Japan)	April 28, 2000 2000-615756	Laminin 8 and methods for its use, Kortessmaa and Tyggyvason	Pending
99,274-E	September 24, 1999 60/155,945	Tyggyvason and Hudson, <i>Recombinant Laminins to Accelerate Wound Repair and Promote Tissue Regeneration</i>	Converted into 99,274-D/D1
00-1291	December 21, 2000 60/257,449	Tyggyvason, "The Primary Structure of the Human Laminin Alpha 5 Chain"	To be converted into 99,274-F/F1
01-069	March 29, 2001 60/279,282	Tyggyvason "Production and Purification of Recombinant Laminin-10 ($\alpha 5\beta 1\gamma 1$)"	Filed
01-069-A	November 13, 2001 TBA	Tyggyvason and Kortessmaa "Recombinant Human Laminin 10 ($\alpha 5\beta 1\gamma 1$): Production, Purification and Migration Promoting Activity on Vascular Endothelial Cells"	Filed
99,274-F (US)		Tyggyvason, Kortessmaa, Doi, and Thyboll "Laminin alpha 5 chain and recombinant laminin 10"	In preparation
99,274-F1 (PCT)		Tyggyvason, Kortessmaa, Doi, and Thyboll "Laminin alpha 5 chain and recombinant laminin 10"	In preparation