

ANNEX A
TO
RECORDED FORM COVER SHEET

PATENTS ONLY

Hilal Capital, LP, *a Delaware limited partnership*

Hilal Capital QP, LP, *a Delaware limited partnership*

Hilal Capital International, Ltd., *an exempted company formed under the laws of the Cayman Islands*

Highbridge International LLC, *a Cayman Islands company*

C.J. Partners L.P. *and*
Hilal Capital Management LLC, *a Delaware limited liability company, as advisor for Leo Holdings, Inc.*

PATENT
REEL: 9199 FRAME: 0763

SCHEDULE 1A TO ASSIGNMENT FOR SECURITY

(PATENTS AND PATENT APPLICATIONS)

Patents **US PATENTS & PATENT APPLICATIONS**

Item	Status	Application No.	Description/Entry	Category
PG-002-US	Issued: U.S. Patent No. 5,545,527	08/271,946	US Patent for "METHOD FOR TESTING FOR MUTATIONS IN DNA FROM A PATIENT SAMPLE"	Geneware
PG-002-US2	US Application	08/750,232	US Patent for "METHOD FOR TESTING FOR MUTATIONS IN DNA FROM A PATIENT SAMPLE"	Geneware
PG-004-US	Allowed	08/361,757	US Patent Application for "METHOD AND COMPOSITION FOR INTERNAL IDENTIFICATION OF SAMPLES FOR NUCLEIC ACID SEQUENCING"	Geneware
PG-004-US2	US Application	08/860,158	US Patent Application for "METHOD AND COMPOSITION FOR INTERNAL IDENTIFICATION OF SAMPLES FOR NUCLEIC ACID SEQUENCING"	Geneware
PG-009-US	Allowed	08/590,503	US Patent Application for "METHOD FOR IDENTIFICATION OF MUTATIONS USING LIGATION OF MULTIPLE OLIGONUCLEOTIDE PROBES"	Geneware

PATENT
REEL: 9199 FRAME: 0766

Item	Status	Application No.	Description/Entry	Category
PG-009-US2	US Application	08/	National Entry US Patent Application for "METHOD FOR IDENTIFICATION OF MUTATIONS USING LIGATION OF MULTIPLE OLIGONUCLEOTIDE PROBES"	Geneware
PG-010-US	Allowed	08/577,858	US Patent Application for "METHOD FOR EVALUATION OF POLYMORPHIC GENETIC SEQUENCES, AND THE USE THEREOF IN IDENTIFICATION OF HLA TYPES"	Geneware
PG-012-US	US Application	08/640,672	US Patent Application for "METHOD FOR AMPLIFICATION AND SEQUENCING OF NUCLEIC ACID POLYMERS"	Geneware
PG-034-US	US Application	09/009,483	US Patent Application for "METHOD FOR BI-DIRECTIONAL SEQUENCING OF NUCLEIC ACID POLYMERS"	Geneware
PG-017-US	Allowed	08/684,498	US Patent Application for "METHOD FOR SINGLE-TUBE SEQUENCING OF NUCLEIC ACID POLYMERS"	Geneware

Item	Status	Application No.	Description/Entry	Category
PG-020-US	US Application	08/807,138	US Patent Application for "METHOD, COMPOSITIONS AND KIT FOR DETECTION AND IDENTIFICATION OF MICROORGANISMS"	Geneware
PG-002-US	US Application	60/031,257	US Patent Application for "METHOD AND KIT FOR DIRECT ISOTHERMAL SEQUENCING OF NUCLEIC ACIDS"	Geneware
PG-031-US	US Application	60/	US Patent Application for "DRUG DIRECTED MUTANOGENESIS/DRUG DRIVEN SELECTION FOR LETHAL MUTANTS"	Geneware
PG-003-US	Issued: U.S. Patent No. 5,550,020	08/271,942	US Patent for "METHOD FOR DIAGNOSIS AND TARGETED SCREENING FOR RETINOBLASTOMA"	GeneKit
PG-005-US	Issued: U.S. Patent No. 5,552,283	08/388381	US Patent for "METHOD, REAGENTS AND KIT FOR DIAGNOSIS AND TARGETED SCREENING FOR P53 MUTATIONS"	GeneKit

Item	Status	Application No. Description/Entry	Category
PG-008	US Application	08/699,621 "COMPOSITIONS AND METHODS FOR DIAGNOSIS OF MUTATION IN THE VON HIPPEL-LINDAU TUMOR SUPPRESSOR GENE"	GeneKit
PG-011-US	US Application	08/708,832 US Patent Application for "COMPOSITION, METHOD AND KIT FOR DETECTION AND IDENTIFICATION OF SEXUALLY TRANSMITTED DISEASE MICROORGANISMS"	GeneKit
PG-014	US Application	08/649,950 US Patent Application for "METHOD AND REAGENTS FOR TESTING FOR MUTATIONS IN THE BRCA1 GENE"	GeneKit
PG-023-US	US Application	08/766,189 US Patent Application for "METHOD AND KIT FOR HLA CLASS I TYPING"	GeneKit
PG-025-US	Allowed	08/819,912 US Patent Application for "METHOD AND KIT FOR QUANTIFICATION AND NUCLEIC ACID SEQUENCING FOR NUCLEIC ACID ANALYTES IN A SAMPLE"	GeneKit

Item	Status	Application No.	Description/Entry	Category
PG-029-US	US Application	08/938,641	US Patent Application for "METHOD AND KIT FOR EVALUATION OF HIV MUTATIONS"	GeneKit
PG-030-US	US Application	08/909,288	US Patent Application for "METHOD AND KIT FOR HLA CLASS I TYPING"	GeneKit
PG-032-US	US Application	08/948,717	U.S. Patent Application for "METHOD AND KIT FOR AMPLIFICATION, SEQUENCING AND TYPING OF CLASSICAL HLA CLASS I GENES"	GeneKit
PG-036-US	US Application	08/	U.S. Patent Application for "METHOD FOR SEQUENCING OF NUCLEIC ACID POLYMERS"	Geneware
PH-002-US	Issued: U.S. patent No. 5,627,022	08/332,577	US Patent for "MICROGELS FOR USE IN MEDICAL DIAGNOSIS AND METHODS OF MAKING AND USING SAME"	Hardware
PH-002-US2	US Application	08/836,269	US Patent for "MICROGELS FOR USE IN MEDICAL DIAGNOSIS AND METHODS OF MAKING AND USING SAME"	Hardware

PATENT

05/21/98

LARG/3906/VA/07

Item	Status	Application No.	Description/Entry	Category
PH-003-US	Issued: U.S. Patent No. 5,710,628	08/353,932	US Patent Application for "AUTOMATED ELECTROPHORESIS AND FLUORESCENCE DETECTION APPARATUS"	Hardware
PH-003-US2	US Application	08/849,662	US Patent Application for "AUTOMATED ELECTROPHORESIS AND FLUORESCENCE DETECTION APPARATUS"	Hardware
PH-004-US	Issued: U.S. Patent No. 5,507,934	08/332,892	US Patent for "APPARATUS FOR PREPARING GELS FOR USE IN ELECTROPHORETIC SEPARATIONS AND SIMILAR APPLICATIONS"	Hardware
PH-006-US	Allowed	08/570994	US Patent Application for "VIRTUAL DNA SEQUENCER"	Hardware
PH-006-DUS	US Applications	09/004,377	Divisional US Patent Application for "VIRTUAL DNA SEQUENCER"	Hardware
PH-007-US	Issued: U.S. Patent No. 5,543,018	08/387272	US Patent for "METHOD AND APPARATUS FOR AUTOMATED ELECTROPHORESIS USING LIGHT POLARIZATION DETECTOR"	Hardware

Item	Status	Application No.	Description/Entry	Category
PH-011-US	US Application	08/973,933	PCT Patent Application for "THIN FILM MICRO-ELECTROPHORESIS CHIP FOR MOVING AND SEPARATING NUCLEIC ACIDS AND OTHER CHARGED MOLECULES"	Hardware
PH-013-US	Issued: U.S. Patent No. 5,618,398	08/571,297	US Patent for "ELECTROPHORESIS GELS AND GEL HOLDERS HAVING FIBER SPACERS AND METHOD OF MAKING SAME"	Hardware
PH-014-US	Issued: U.S. Patent No. 5,599,434	08/517,132	US Patent for "ELECTROPHORESIS GELS AND GEL HOLDERS HAVING ADHESIVE AFFIXED FIBER SPACERS AND METHOD OF MAKING SAME"	Hardware
PH-019-US	US Application	08/634,284	US Patent Application for "METHOD, APPARATUS AND KITS FOR SEQUENCING OF NUCLEIC ACIDS USING MULTIPLE DYES" = MULTI-DYE Sequencer 6x16	Hardware

Item	Status	Application No.	Description/Entry	Category
PH-020-US	US Application	08/703,730	US Patent Application for "METHOD AND APPARATUS FOR THERMAL CYCLING AND FOR AUTOMATED SAMPLE PREPARATION WITH THERMOCYCLING" = Front End Loader	Hardware
PH-026-US	US Application	08/885,531	US Patent Application for "GEL-FORMING INSERT FOR ELECTROPHORESIS GELS"	Hardware
PH-030-US	US Application	08/703,710	US Patent Application for "APPARATUS AND METHOD FOR PERFORMING SEQUENCING OF NUCLEIC ACID POLYMERS"	Hardware
PH-036-US	US Application	08/819,910	US Patent Application for "HIGH DYNAMIC RANGE APPARATUS FOR SEPARATION AND DETECTION OF POLYNUCLEOTIDE FRAGMENTS"	Hardware
PH-017-US	US Application	08/973,932	US Patent Application for "NANOFABRICATED SEPARATION MATRIX FOR ANALYSIS OF BIOPOLYMERS AND METHOD OF MAKING AND USING SAME"	Hardware

Item	Status	Application No. Description/Entry	Category
PH-009-US	US Application	08/497202 US Patent Application for "METHOD AND SYSTEM FOR DNA SEQUENCE DETERMINATION AND MUTATION DETECTION"	Software
PH-010-US	US Application	08/452719 US Patent Application for "ELECTROPHORESIS AND FLUORESCENCE DETECTION APPARATUS AND METHOD"	Software
PH-010-US-DIV	Issued: U.S. Patent No. 5,712,476	08/624789 US Patent Application for "ELECTROPHORESIS AND FLUORESCENCE DETECTION APPARATUS AND METHOD"	Software
PH-016-US	US Application	08/670,534 US Patent Application for "METHOD AND APPARATUS FOR ALIGNMENT OF SIGNALS FOR USE IN BASE CALLING"	Software
PH-038-US	US Application	08/892,003 US Patent Application for "IMPROVED METHOD AND APPARATUS FOR HIGH-THROUGHPUT DNA SEQUENCE-BASED DIAGNOSTICS"	Software

PATENT

PENDING TRADEMARK APPLICATIONS

<i>Mark</i>	<i>Country</i>	<i>Our File</i>	<i>Appls. No.</i>	<i>Wares/Services</i>	<i>Next Action</i>
OPENGENE	U.S.A.	128-110US	75/192,433	Electrophoresis systems, namely electrophoresis machines, reagents and gels - Class 10	Awaiting confirmation from examiner that new definition of wares is acceptable.
GENEOBJECTS	U.S.A.	128-111US	75/164,130	Computer software for operating electrophoresis apparatus and for data management and molecular analysis - Class 9	Advertised January 20, 1998. Awaiting notice of allowance.
GENE-MART	U.S.A.	128-112US	75/256,338	Advertising and marketing, namely the advertising, marketing and sale of diagnostic products and services - Class 35	Awaiting confirmation from examiner that new definition of services is acceptable.
GENE-MALL	U.S.A.	128-113US	75/256,340	Advertising and marketing, namely the advertising, marketing and sale of diagnostic products and services - Class 35	Awaiting confirmation from examiner that new definition of services is acceptable.

VGEN.T-001	VISIBLE GENETICS	Registration No. 2,040,905, granted February 25, 1997
VGEN.T-002	VISIBLE GENETICS with Design	Application No. 74/663,394, April 19, 1995
VGEN.T-005	V with design	,
VGEN.T-008	MICROGENE BLASTER	Application No. 74/663,351, filed April 19, 1995
VGEN.T-009	RECURSIVE SEQUENCING	Application No. 74/663,357, filed April 19, 1995
VGEN.T-010	CLIP	Application No. 75/375,355, filed October 17, 1997
VGEN.T-011	GENEBASE	Application No. 75/375,301, filed October 17, 1997
VGEN.T-012	CRICKET	Application No. 75/375,356, filed October 17, 1997
VGEN.T-013	CLIPPER	Application No. 75/375,357, filed October 17, 1997
VGEN.T-014	GENESPACE	Application No. 75/375,354, filed October 17, 1997
VGEN.T-015	GENEFLOW	Application No. 75/375,358, filed October 17, 1997
VGEN.T-016	MICROCEL	Application No. 75/432,467, filed February 11, 1998
VGEN.T-018	TRUGENE	Application No. 75/375,359, filed October 17, 1997
VGEN.T-019	TRULOAD	Application No. 75/275,914, filed October 20, 1997
VGEN.T-020	QUICKGENE	Application No. 75/375,915, filed October 20, 1997
VGEN.T-021	GENECEL	Application No. 75/375,916, filed October 20, 1997
VGEN.T-022	GEL TOASTER	,
VGEN.T-023	SUREFILL	,
VGEN.T-024	GENELIBRARIAN	,
VGEN.T-025	MICROGENE CLIPPER	Application No. 75/381,639, filed October 20, 1997
VGEN.T-026	MICROGENE CRICKET	,
VGEN.T-027	GENEKIT	,
VGEN.T-028	ANTI-RETROVIROGRAM	Application No. 75/432,516, filed February 11, 1998
VGEN.T-029	MGB	Application No. 75/432,424, filed February 11, 1998
VGEN.T-030	MGC	Application No. 75/432,423, filed February 11, 1998
VGEN.T-031	GENEOBJECTS	Application No. 75/432,466, filed February 11, 1998
VGEN.T-032	QWKMIX	,

ASSIGNMENT FOR SECURITY

(PATENTS)

WHEREAS, VISIBLE GENETICS INC., an Ontario corporation (the "Assignor") holds all right, title and interest in the letter patents, design patents and utility patents listed on the annexed Schedule 1A, which patents are issued or applied for in the United States Patent and Trademark Office (the "Patents");

WHEREAS, the Assignor, has entered into a Security Agreement dated April 30, 1998 (the "Security Agreement") in favor of Hilal Capital, LP, a Delaware limited partnership, Hilal Capital QP, LP, a Delaware limited partnership, Hilal Capital International, Ltd., an exempted company formed under the laws of the Cayman Islands, Highbridge International LLC, a Cayman Islands company, C.J. Partners L.P. and Hilal Capital Management LLC, a Delaware limited liability company, as adviser for Leo Holdings, Inc., each, a Lender, and collectively the Lenders (the "Assignees");

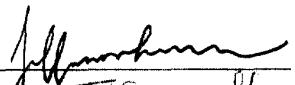
WHEREAS, pursuant to the Security Agreement, the Assignor has assigned to the Assignees and granted to the Assignees a security interest in all right, title and interest of the Assignor in, to and under the Patents and the applications and registrations thereof, and all proceeds thereof, including, without limitation, any and all causes of action which may exist by reason of infringement thereof (the "Patent Collateral"), to secure the payment, performance and observance of the Obligations (as defined in the Security Agreement);

NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged, the Assignor does hereby convey, sell, assign, transfer and set over unto the Assignees and grants to the Assignees a security interest in the Patent Collateral to secure the prompt payment, performance and observance of the Obligations.

The Assignor does hereby further acknowledge and affirm that the rights and remedies of the Assignees with respect to the Patent Collateral are more fully set forth in the Security Agreement, the terms and provisions of which are hereby incorporated herein by reference as if fully set forth herein.

IN WITNESS WHEREOF, the Assignor has caused this Assignment to be duly executed by its officer thereunto duly authorized as of April 30, 1998.

VISIBLE GENETICS, INC.

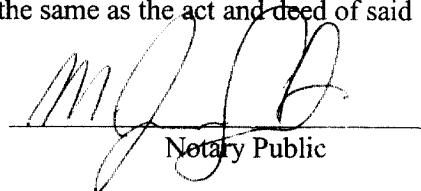
By: 
Name: Jeffrey Sherman
Title: Vice President

STATE/PROVINCE OF ONTARIO

SS.:

COUNTY OF YORK

On this 1st day of MAY, 1998, before me personally came JEFFREY SHERMAN, to me known to be the person who executed the foregoing instrument, and who, being duly sworn by me, did depose and say that he is the VICE PRESIDENT, FINANCE of Visible Genetics Inc., an Ontario corporation, and that he executed the foregoing instrument in the name of Visible Genetics Inc. and that he had authority to sign the same, and he acknowledged to me that he executed the same as the act and deed of said for the uses and purposes therein mentioned.


Notary Public

My Commission Expires:

no expiry

MARK JASON AUGUST