PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4258862

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST

CONVEYING PARTY DATA

Name	Execution Date
AGENA BIOSCIENCE, INC.	01/31/2017

RECEIVING PARTY DATA

Name:	MIDCAP FINANCIAL TRUST
Street Address:	7255 WOODMONT AVE., SUITE 200
Internal Address:	C/O MIDCAP FINANCIAL SERVICES, LLC, AS SERVICER
City:	BETHESDA
State/Country:	MARYLAND
Postal Code:	20814

PROPERTY NUMBERS Total: 57

Property Type	Number
Patent Number:	6024925
Patent Number:	7285422
Patent Number:	7232688
Patent Number:	6569385
Patent Number:	8821816
Patent Number:	8999266
Application Number:	14656267
Patent Number:	7917301
Patent Number:	8315805
Patent Number:	7019288
Patent Number:	7820378
Patent Number:	8003317
Patent Number:	8349566
Patent Number:	9068223
Application Number:	14720179
Patent Number:	9249456
Patent Number:	7888127
Patent Number:	9310378
Application Number:	13126684

PATENT REEL: 041621 FRAME: 0548

504212185

Property Type	Number	
Application Number:	13551486	
Application Number:	13790996	
PCT Number:	US1238710	
Patent Number:	9305756	
Application Number:	15062778	
PCT Number:	US1420001	
Patent Number:	6558623	
Patent Number:	7025933	
Application Number:	15136024	
PCT Number:	US1628971	
PCT Number:	US1628980	
Application Number:	15268058	
PCT Number:	US1652279	
Patent Number:	RE41005	
Patent Number:	RE44693	
Patent Number:	6387628	
Patent Number:	6207370	
Patent Number:	6322970	
Patent Number:	6104028	
Patent Number:	6265716	
Patent Number:	6090558	
Patent Number:	6764822	
Patent Number:	9394565	
Patent Number:	7785843	
Patent Number:	7867714	
Patent Number:	8133701	
Patent Number:	7902345	
Patent Number:	8383795	
Patent Number:	9051608	
Patent Number:	8206927	
Patent Number:	8673571	
Application Number:	13932615	
Patent Number:	9068953	
Application Number:	14516436	
Application Number:	14402658	
Patent Number:	6979425	
Patent Number:	6360792	
Patent Number:	6148878	

CORRESPONDENCE DATA

Fax Number: (703)712-5050

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 703-712-5352

Email: jmiller@mcguirewoods.com

Correspondent Name: JOYCE MILLER

Address Line 1: 1750 TYSONS BLVD.

Address Line 2: SUITE 1800

Address Line 4: TYSONS, VIRGINIA 22102

ATTORNEY DOCKET NUMBER:	2061695-0035
NAME OF SUBMITTER:	JOYCE MILLER
SIGNATURE:	/Joyce Miller/
DATE SIGNED:	02/03/2017

Total Attachments: 20

source=MidCapAgenaSecurityAgreement#page1.tif source=MidCapAgenaSecurityAgreement#page2.tif source=MidCapAgenaSecurityAgreement#page3.tif source=MidCapAgenaSecurityAgreement#page4.tif source=MidCapAgenaSecurityAgreement#page5.tif source=MidCapAgenaSecurityAgreement#page6.tif source=MidCapAgenaSecurityAgreement#page7.tif source=MidCapAgenaSecurityAgreement#page8.tif source=MidCapAgenaSecurityAgreement#page9.tif source=MidCapAgenaSecurityAgreement#page10.tif source=MidCapAgenaSecurityAgreement#page11.tif source=MidCapAgenaSecurityAgreement#page12.tif source=MidCapAgenaSecurityAgreement#page13.tif source=MidCapAgenaSecurityAgreement#page14.tif source=MidCapAgenaSecurityAgreement#page15.tif source=MidCapAgenaSecurityAgreement#page16.tif source=MidCapAgenaSecurityAgreement#page17.tif source=MidCapAgenaSecurityAgreement#page18.tif source=MidCapAgenaSecurityAgreement#page19.tif source=MidCapAgenaSecurityAgreement#page20.tif

INTELLECTUAL PROPERTY SECURITY AGREEMENT

This Intellectual Property Security Agreement is entered into as of the 31st day of January, 2017 2015 by and among MIDCAP FINANCIAL TRUST, a Delaware statutory trust, ("Agent"), AGENA BIOSCIENCE, INC., a Delaware corporation (the "Grantor").

RECITALS

- A. The Lenders (as defined below) have agreed to make certain advances of money and to extend certain financial accommodation to Grantor (the "Credit Extensions") in the amounts and manner set forth in that certain Credit and Security Agreement by and among Agent, the financial institutions party thereto from time to time (collectively, the "Lenders"), and Grantor, dated as of January 31, 2017 (as the same may be amended, modified or supplemented from time to time, the "Credit Agreement"; capitalized terms used herein are used as defined in the Credit Agreement). The Lenders are willing to make the Credit Extensions to Grantor, but only upon the condition, among others, that Grantor shall grant to Agent, for the ratable benefit of the Lenders, a security interest in certain Copyrights, Trademarks, Patents, and Mask Works (as each term is described below) to secure the obligations of Grantor under the Credit Agreement.
- B. Pursuant to the terms of the Credit Agreement, Grantor has granted to Agent, for the ratable benefit of the Lenders, a security interest in all of Grantor's right, title and interest, whether presently existing or hereafter acquired, in, to and under all of the Collateral (as specifically defined in the Credit Agreement).
- NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged, and intending to be legally bound, as collateral security for the prompt and complete payment when due of its obligations under the Credit Agreement, Grantor hereby represents, warrants, covenants and agrees as follows:

AGREEMENT

To secure its obligations under the Credit Agreement, each Grantor grants and pledges to Agent, for the ratable benefit of the Lenders, a security interest in all of such Grantor's right, title and interest in, to and under its intellectual property (all of which shall collectively be called the "Intellectual Property Collateral"), including, without limitation, the following:

- (a) Any and all copyright rights, copyright applications, copyright registrations and like protections in each work or authorship and derivative work thereof, whether published or unpublished and whether or not the same also constitutes a trade secret, now or hereafter existing, created, acquired or held, including without limitation those set forth on Exhibit A attached hereto (collectively, the "Copyrights");
- (b) Any and all trade secrets, and any and all intellectual property rights in computer software and computer software products now or hereafter existing, created, acquired or held;
- (c) Any and all design rights that may be available to such Grantor now or hereafter existing, created, acquired or held;

- (d) All patents, patent applications and like protections including, without limitation, improvements, divisions, continuations, renewals, reissues, extensions and continuations-in-part of the same, including without limitation the patents and patent applications set forth on <u>Exhibit B</u> attached hereto (collectively, the "**Patents**");
- (e) Any trademark and servicemark rights, whether registered or not, applications to register and registrations of the same and like protections, and the entire goodwill of the business of such Grantor connected with and symbolized by such trademarks, including without limitation those set forth on Exhibit C attached hereto (collectively, the "**Trademarks**");
- (f) All mask works or similar rights available for the protection of semiconductor chips, now owned or hereafter acquired, including, without limitation those set forth on Exhibit D attached hereto (collectively, the "Mask Works");
- (g) Any and all claims for damages by way of past, present and future infringements of any of the rights included above, with the right, but not the obligation, to sue for and collect such damages for said use or infringement of the intellectual property rights identified above;
- (h) All licenses or other rights to use any of the Copyrights, Patents, Trademarks, or Mask Works and all license fees and royalties arising from such use to the extent permitted by such license or rights;
- (i) All amendments, extensions, renewals and extensions of any of the Copyrights, Trademarks, Patents, or Mask Works; and
- (j) All proceeds and products of the foregoing, including without limitation all payments under insurance or any indemnity or warranty payable in respect of any of the foregoing.

This security interest is granted in conjunction with the security interest granted to Agent, for the ratable benefit of the Lenders, under the Credit Agreement. The rights and remedies of Agent with respect to the security interest granted hereby are in addition to those set forth in the Credit Agreement and the other Financing Documents, and those which are now or hereafter available to Agent as a matter of law or equity. Each right, power and remedy of Agent provided for herein or in the Credit Agreement or any of the Financing Documents, or now or hereafter existing at law or in equity shall be cumulative and concurrent and shall be in addition to every right, power or remedy provided for herein and the exercise by Agent of any one or more of the rights, powers or remedies provided for in this Intellectual Property Security Agreement, the Credit Agreement or any of the other Financing Documents, or now or hereafter existing at law or in equity, shall not preclude the simultaneous or later exercise by any person, including Agent, of any or all other rights, powers or remedies.

[Remainder of page intentionally blank; signature page follows.]

IN WITNESS WHEREOF, the parties have caused this Intellectual Property Security Agreement to be duly executed by its officers thereunto duly authorized as of the first date written above.

GRANTOR:

Address of Grantor:

Agena Bioscience, Inc. 4755 Eastgate Mall San Diego, CA 92121

Attention: Terry Kenninger, CFO E-Mail: Terry.Kinninger@agenabio.com

Name: Peter Dansky

Title: Chief Executive Officer

AGENA BJØSCIENCE, INC

(SEAL)

AGENA BIOSCIENCE, INC.
INTELLECTUAL PROPERTY SECURITY AGREEMENT
SIGNATURE PAGE

Address of Agent:

MidCap Financial Trust c/o MidCap Financial Services, LLC, as servicer 7255 Woodmont Ave, Suite 200 Bethesda, MD 20814

Attn: Account Manager for Agena transaction

Facsimile: 301-941-1450

Email: notices@midcapfinancial.com

AGENT:

MIDCAP FINANCIAL TRUST

By: Apollo Capital Management, L.P., its investment manager

Apollo Capital Management GP, LLC, By: its general partner

(SEAL)

Name: Mourice Amselem Title: Authorized Signatory

EXHIBIT A

Copyrights

NONE.

85370668_2

EXHIBIT B

Patents

SEE ATTACHED.

85370668_2

Referen ce No.	PATENT OR PATENT APPLICATION TITLE	Application Type/No. Country	Patent or Publication Number	Filing Date	Status
1.	SEQ-2001	,			
1.	Systems and Methods for Preparing and Analyzing				
2.	Low Volume Analyte Array Elements	CP	US6024925	1/23/97	Issued
	Systems and Methods for Preparing and Analyzing				1
3.	Low Volume Analyte Array Elements	UT2	US7285422	1/23/97	Issued
4.	Systems and Methods for Preparing and Analyzing Low Volume Analyte Array Elements	DV	US7232688	7/30/99	Issued
	Systems and Methods for Preparing and Analyzing	DV	037232000	1130133	Issued
5.	Low Volume Analyte Array Elements	DV2	US6569385	10/28/99	Issued
	Matrix-Assisted Laser Desorption Ionization Mass				
6.	Spectrometry Substrates Having Low Volume Matrix Array Elements	СТ	8821816	5/19/08	Issued
	SEQ 2046				
_	Method and Apparatus for Delivery of Submicroliter	GTP2	0000266	11/01/10	, ,
7.	Volumes onto a Substrate Method and Apparatus for Delivery of Submicroliter	CT2	8999266	11/21/12	Issued
	Volumes onto a Substrate	CT3	14656267	3/12/15	Pending
		CIS	14030207	3/12/13	Tending
	SEQ 2049 Method and Device for Identifying a Biological		+		+
8.	Sample	UT	US7917301	9/19/00	Issued
9.	Method and Device for Identifying a Biological Sample	AU	AU776811B2	10/13/00	Issued
	Method and Device for Identifying a Biological	710	110770011112	10/15/00	IBBACA
10.	Sample	DE	EP1350211	9/18/01	Issued
	Method and Device for Identifying a Biological				
11.	Sample	FR	EP1350211	9/18/01	Issued
1.0	Method and Device for Identifying a Biological	GD.	ED1250211	0/10/01	, ,
12.	Sample	GB	EP1350211	9/18/01	Issued
13.					
1.4	Method and Device for Identifying a Biological	TTD	ED1250211	0/10/01	T 1
14.	Sample	IT	EP1350211	9/18/01	Issued
	SEQ 2050				
15.	System and Method for Testing a Biological Sample	СР	US8315805	4/22/02	Issued
16.	System and Method for Testing a Biological Sample	EP	EP1390900	4/22/02	Pending
	SEQ 2066				
	Methods of Making Substrates for Mass Spectrometry				
17.	Analysis and Related Devices	UT	US7019288	9/29/04	Issued
	SEQ 2073				
	Fragmentation-based Methods and Systems for				
18.	Sequence Variation Detection and Discovery	UT	US7820378	11/26/03	Issued
10	Fragmentation-based Methods and Systems for	ATT	AU3298733B	11/06/02	
19.	Sequence Variation Detection and Discovery	AU	В	11/26/03	Issued
20.	Fragmentation-based Methods and Systems for Sequence Variation Detection and Discovery	CA	2507189	11/26/03	Pending
۷٠.	Fragmentation-based Methods and Systems for	CA	230/109	11/20/03	1 Chaing
21.	Sequence Variation Detection and Discovery	CN	CN1774511B	11/26/03	Issued
	Fragmentation-based Methods and Systems for				
22.	Sequence Variation Detection and Discovery	EP	EP1613723	11/26/03	Issued

Referen	DATENT OD DATENT ADDI ICATION TITLE	Application Type/No.	Patent or Publication	Filing	Status
ce No.	PATENT OR PATENT APPLICATION TITLE Fragmentation-based Methods and Systems for	Country	Number	Date	Status
23.	Sequence Variation Detection and Discovery	нк	1087436		Issued
	Sequence variation Detection and Discovery	IIIX	1007430		Issued
24.					
	Fragmentation-based Methods and Systems for		1=0<00 1= 0	11/06/00	l
25.	Sequence Variation Detection and Discovery	JP	4786904B2	11/26/03	Issued
	SEQ 2079				
	Methods for High Level Multiplexed Polymerase				
	Chain Reactions and Homogeneous Mass Extension		EP1660680B		
26.	Reactions	EP	1	7/30/04	Issued
	Methods for High Level Multiplexed Polymerase				
	Chain Reactions and Homogeneous Mass Extension		EP1660680B		
27.	Reactions	FR	1	7/30/04	Issued
	Methods for High Level Multiplexed Polymerase				
	Chain Reactions and Homogeneous Mass Extension		EP1660680B		
28.	Reactions	DE	1	7/30/04	Issued
	Methods for High Level Multiplexed Polymerase				
	Chain Reactions and Homogeneous Mass Extension		EP1660680B		
29.	Reactions	UK	1	7/30/04	Issued
	Methods for High Level Multiplexed Polymerase				
	Chain Reactions and Homogeneous Mass Extension				
30.	Reactions	UT	US8003317	7/30/04	Issued
	Methods for High Level Multiplexed Polymerase				
	Chain Reactions and Homogeneous Mass Extension				
31.	Reactions	CT	US8349566	7/28/11	Issued
	Methods for High Level Multiplexed Polymerase				
	Chain Reactions and Homogeneous Mass Extension	ama.	00.0000	104040	l
32.	Reactions	CT2	9068223	12/18/12	Issued
	Methods for High Level Multiplexed Polymerase				
22	Chain Reactions and Homogeneous Mass Extension	OTT2	14720170		D 1
33.	Reactions	CT3	14720179		Pending
	Methods for High Level Multiplexed Polymerase				
2.4	Chain Reactions and Homogeneous Mass Extension	CD	ED2107120D	2/10/00	T
34.	Reactions	GB	EP2107129B	3/10/09	Issued
	Methods for High Level Multiplexed Polymerase				
25	Chain Reactions and Homogeneous Mass Extension	DE	ED2107120B	2/10/00	Logued
35.	Reactions Methods for High Level Multiplexed Polymerase	DE	EP2107129B	3/10/09	Issued
	Chain Reactions and Homogeneous Mass Extension				
36.	Reactions and Homogeneous Wass Extension	IE	EP2107129B	3/10/09	Issued
50.	Reactions	1L	LI 210/129D	3/10/03	133000
	SEQ 2080				
	Base Specific Cleavage of Methylation-specific				
	Amplification Products in Combination with Mass		AU5230936B		
37.	Analysis	AU	2	3/24/05	Issued
	Base Specific Cleavage of Methylation-specific				
	Amplification Products in Combination with Mass				
38.	Analysis	CA	CA2561381	3/24/05	Issued
	Base Specific Cleavage of Methylation-specific				
	Amplification Products in Combination with Mass		EP1727911B		
39.	Analysis	DE	1	3/24/05	Issued

Referen ce No.	PATENT OR PATENT APPLICATION TITLE	Application Type/No. Country	Patent or Publication Number	Filing Date	Status
CC 1101	Base Specific Cleavage of Methylation-specific	Sound	110222001	Dure	Status
	Amplification Products in Combination with Mass				
40.	Analysis	HK	1098792B	3/24/05	Issued
41.	·				
11.	Base Specific Cleavage of Methylation-specific				
	Amplification Products in Combination with Mass				
42.	Analysis	UT	9249456	3/24/05	Issued
	Base Specific Cleavage of Methylation-specific	-			
	Amplification Products in Combination with Mass				
43.	Analysis	EP2	EP2395098	3/24/05	Pending
	Base Specific Cleavage of Methylation-specific				
	Amplification Products in Combination with Mass		EP1727911B		
44.	Analysis	FR	1	3/24/05	Issued
	Base Specific Cleavage of Methylation-specific				
	Amplification Products in Combination with Mass		EP1727911B		
45.	Analysis	GB	1	3/24/05	Issued
	SEQ 6015				
	Methods For Reducing Adduct Formation For Mass				
46.	Spectrometry Analysis	UT	US7,888,127	1/15/08	Issued
+0.	Compositions and Processes for Improved Mass	01	037,888,127	1/13/06	Issued
47.	Spectrometry Analysis	СТ	9310378	1/7/11	Issued
77.	Compositions and Processes for Improved Mass	CI	9310376	1/ // 11	Issued
48.	Spectrometry Analysis	AU	2009205404	1/14/09	Issued
то.	Compositions and Processes for Improved Mass	710	2007203-10-1	1/14/02	133404
49.	Spectrometry Analysis	AU2	2014203336	1/14/09	Pending
.,,,	Compositions and Processes for Improved Mass			2, 2 ,, 0,	1 January
50.	Spectrometry Analysis	CA	2711943	1/14/09	Pending
	Compositions and Processes for Improved Mass				
51.	Spectrometry Analysis	CN	101965221	1/14/09	Pending
	Compositions and Processes for Improved Mass		20161075300		
52.	Spectrometry Analysis	CN2	27	1/14/09	Pending
	Compositions and Processes for Improved Mass				
53.	Spectrometry Analysis	EA	017342B1	1/14/09	Issued
	Compositions and Processes for Improved Mass				
54.	Spectrometry Analysis	EP	EP2242561	1/14/09	Issued
	Compositions and Processes for Improved Mass				
55.	Spectrometry Analysis	EP2	161813001		Pending
	Compositions and Processes for Improved Mass		WO20090918		
56.	Spectrometry Analysis	HK	41A2	4/20/11	Pending
	Compositions and Processes for Improved Mass		WO20090918		
57.	Spectrometry Analysis	IN	41A2	1/14/09	Pending
-	Compositions and Processes for Improved Mass	100	5400500=:	1/1/100	
58.	Spectrometry Analysis	JP	5400799B1	1/14/09	Issued
70	Compositions and Processes for Improved Mass	IZD	WO20090918	1/14/00	n ,:
59.	Spectrometry Analysis	KR	41A2	1/14/09	Pending
<i>(</i> 0	Compositions and Processes for Improved Mass	CC.	162201	1/14/00	T
60.	Spectrometry Analysis	SG	163201	1/14/09	Issued
<i>(</i> 1	Compositions and Processes for Improved Mass	IDO	5651042	1/14/00	I ama 3
61.	Spectrometry Analysis	JP2	5651842	1/14/09	Issued

Referen ce No.	PATENT OR PATENT APPLICATION TITLE	Application Type/No. Country	Patent or Publication Number	Filing Date	Status
	SEQ 6020				
	Products and processes for multiplex nucleic acid				
62.	identification	US	20120046178	10/27/09	Pending
	Products and processes for multiplex nucleic acid		201200.0170	10,2,,03	Tonumg
63.	identification	CA	2742272	10/27/09	Pending
	Products and processes for multiplex nucleic acid				
64.	identification	EP	EP2356259	10/27/09	Pending
	Products and Processes for Multiplex Nucleic Acid		US20130017		
65.	Identification	CT2T	960	7/17/12	Pending
	Products and Processes for Multiplex Nucleic Acid		US20140011		
66.	Identification	CT3	195	3/8/13	Pending
. =	Products and Processes for Multiplex Nucleic Acid	ED2	ED2710144	5/10/10	n 1:
67.	Identification	EP2	EP2710144	5/18/12	Pending
68.	Products and Processes for Multiplex Nucleic Acid Identification	JP	2014511601	5/18/12	Allowed
00.	Products and Processes for Multiplex Nucleic Acid	J1	2014311001	3/10/12	Allowed
69.	Identification	JP2	201696686	5/18/12	Pending
07.	Products and Processes for Multiplex Nucleic Acid	312	2012-	3/10/12	Tenang
70.	Identification	CN	80035668.9	5/18/12	Pending
	Products and Processes for Multiplex Nucleic Acid				3
71.	Identification	CA2	2835942	5/18/12	Pending
	Products and Processes for Multiplex Nucleic Acid				
72.	Identification	EA	201391723	5/18/12	Pending
	Products and Processes for Multiplex Nucleic Acid				
73.	Identification	AU	2012254985	5/18/12	Pending
	Products and Processes for Multiplex Nucleic Acid	DV	12/700006	2/0/12	n 1:
74.	Identification	DV	13/790996	3/8/13	Pending
75.	Products and Processes for Multiplex Nucleic Acid Identification	PC2	PCT/US2012/ 038710	5/18/12	Pending
75.	Identification	rcz	038710	3/10/12	Feliding
	SEQ 6061				
	Preparation Enhancements And Methods Of Use For				
76.	Maldi Mass Spectrometry	UTt	9305756	3/13/13	Issued
	Preparation Enhancements And Methods Of Use For	CTT	15/062 550	2/7/16	n .:
77.	Maldi Mass Spectrometry	СТ	15/062,778	3/7/16	Pending
78.	Preparation Enhancements And Methods Of Use For Maldi Mass Spectrometry	РСТ	PCT/US2014/ 020001	3/3/14	Pending
76.	Preparation Enhancements And Methods Of Use For	PCI	020001	3/3/14	Pending
	Maldi Mass Spectrometry	AU	2014249722	3/3/14	Pending
	Preparation Enhancements And Methods Of Use For	710	2011219722	3/3/11	rending
	Maldi Mass Spectrometry	CA	2902323	3/3/14	Pending
	Preparation Enhancements And Methods Of Use For		20148001456		
	Maldi Mass Spectrometry	CN	72	3/3/14	Pending
	Preparation Enhancements And Methods Of Use For				
	Maldi Mass Spectrometry	EP	147107619	3/3/14	Pending
	RIGAKU ACQUIRED IP				
	Microarray Dispensing with Real Time Verification				
79.	and Inspection	US	6558623	5/6/03	Issued
80.	Microarray Dispensing with Real Time Verification	EP	EP1307291		Allowed

Referen		Application Type/No.	Patent or Publication	Filing	S4-4
ce No.	PATENT OR PATENT APPLICATION TITLE and Inspection	Country	Number	Date	Status
	Microarray Dispensing with Real Time Verification				
81.	and Inspection	US	7025933	4/11/06	Issued
01.	Microarray Dispensing with Real Time Verification	65	7023733	1/11/00	155000
82.	and Inspection	EP	EP1638689	7/21/10	Issued
	7001				
	Multiplexed Method for the Identification and				
	Quantification of Minor Alleles and Polymorphisms	UT	15/136,024	4/22/16	Pending
	Multiplexed Method for the Identification and		PCT/US2016		
	Quantification of Minor Alleles and Polymorphisms	PCT	028971	4/22/16	Pending
	7002				
	Multiplex Methods for the Detection and		PCT/US2016		
	Quantification of Minor Variants	PCT	6028980	4/22/16	Pending
	7003				
	Methods and Compositions for the Quantitation of				
	Mitochondrial Nucleic Acid	UT	15/268,058	9/16/16	Pending
	Methods and Compositions for the Quantitation of	DOT	PCT/US2016	0/1/6/1/6	D 1
	Mitochondrial Nucleic Acid	PCT	6052279	9/16/16	Pending
	SEO 2002				
	SEQ 2003 Compositions and Methods for Immobilizing Nucleic	US_Reissue			
83.	Acids to Solid Supports	Exam	RE41,005	10/17/02	Issued
84.	Beads Bound to a Solid Support and to Nucleic Acids	US_DV	RE44,693	7/22/09	Issued
	SEQ 2016		,		
05	5EQ 2010				
85.	Diagnostics Based on Mass Spectrometric Detection				
86.	of Translated Target Polypeptides	DV	6387628	9/18/00	Issued
87.	Mass Spectrometric Detection of Polypeptides	UT	US6207370	9/2/97	Issued
88.	Mass Spectrometric Detection of Polypeptides	СР	US6322970	9/2/98	Issued
89.	Mass spectrometric Detection of Forypephides	Cr	030322970	912196	188000
09.	CITIC AND O				
	SEQ 2058 Volatile Matrices for Matrix-assisted Laser				
90.	Desorption/Ionization Mass Spectrometry	UT	US6104028	5/29/98	Issued
70.	Volatile Matrices for Matrix-assisted Laser	0.1	US6265716B	3/27/70	133404
91.	Desorption/Ionization Mass Spectrometry	СТ	1	2/29/00	Issued
	SEQ 2059				1
	DNA Typing by Mass Spectrometry with				
92.	Polymorphic DNA Repeat Markers	UT	US6090558	9/18/98	Issued
	DNA Typing by Mass Spectrometry with				
93.	Polymorphic DNA Repeat Markers	DV	US6764822	4/3/00	Issued

Referen ce No.	PATENT OR PATENT APPLICATION TITLE	Application Type/No. Country	Patent or Publication Number	Filing Date	Status
	SEQ 2069	J			
94.	Allele-specific Sequence Variation Analysis	UT	9394565	9/2/04	Issued
	SEQ 3001				
95.	Target-specific Componers and Methods of Use	UT	7785843	6/23/04	Issued
96.	Target-specific Componers and Methods of Use	DV	7867714	6/22/09	Issued
97.	Target-specific Componers and Methods of Use	AU	AU5327980B	6/22/05	Issued
98.	Target-specific Componers and Methods of Use	CA	CA2569379A	6/22/05	Pending
99.	Target-specific Componers and Methods of Use	CN	CN10142693 2B	6/22/05	Issued
100.	Target-specific Componers and Methods of Use	ES	ES2406734	6/22/05	Pending
100.	Target specific Componers and Methods of Use	Lo	EP1766092A	0/22/03	Tending
101.	Target-specific Compomers and Methods of Use	СН	2	6/22/05	Issued
102.	Target-specific Componers and Methods of Use	SE	EP1766092A 2	6/22/05	Issued
103.	Target-specific Compomers and Methods of Use	DE	EP1766092A 2	6/22/05	Issued
104.	Target-specific Componers and Methods of Use	IE	EP1766092A 2	6/22/05	Issued
105	Towart angelife Commonway and Mathada of Ha	GB	EP1766092A	6/22/05	Isonad
105. 106.	Target-specific Compomers and Methods of Use Target-specific Compomers and Methods of Use	NL	EP1766092A	6/22/05	Issued
100.	rarget specific componers and victious of esc	TVL		0/22/03	133444
	SEQ 6003				
107.	Detection and Quantification of Biomolecules Using Mass Spectrometry	UT	US8133701	3/13/12	Issued
108.	Detection and Quantification of Biomolecules Using Mass Spectrometry	СР	US7902345	6/4/08	Issued
109.	Detection and Quantification of Biomolecules Using Mass Spectrometry	СТ	US8383795	3/3/11	Issued
110	Detection and Quantification of Biomolecules Using	ATT	AU7352560B	10/4/07	
110.	Mass Spectrometry Detection and Quantification of Biomolecules Using	AU	2	12/4/07	Issued
111.	Mass Spectrometry	CA	CA2671864	12/4/07	Pending
112.	Detection and Quantification of Biomolecules Using Mass Spectrometry	FR	EP2099934	5/30/12	Issued
113.	Detection and Quantification of Biomolecules Using Mass Spectrometry	DE	EP2099934	5/30/12	Issued
114.	Detection and Quantification of Biomolecules Using Mass Spectrometry	UK	EP2099934	5/30/12	Issued
115.	Detection and Quantification of Biomolecules Using Mass Spectrometry	JP	5382802	12/4/07	Issued
116.	Detection and Quantification of Biomolecules Using Mass Spectrometry	CT2	US9051608	2/13/13	Issued
	SEQ 6004				

Referen ce No.	PATENT OR PATENT APPLICATION TITLE	Application Type/No. Country	Patent or Publication Number	Filing Date	Status
CC 110.	Method for Accurate Assessment of DNA Quality	Country	rumber	Date	Status
117.	After Bisulfite Treatment	US	8206927	6/26/12	Issued
	Method for Accurate Assessment of DNA Quality				
118.	After Bisulfite Treatment	CT	8673571	5/25/12	Issued
	SEQ 6009				
119.	224				
117.	Comparative Sequence Analysis Processes and				
120.	Systems	AU	AU8240143B	4/13/08	Issued
	Comparative Sequence Analysis Processes and		CA2684217A		
121.	Systems	CA	A	4/13/08	allowed
	Comparative Sequence Analysis Processes and				
122.	Systems	DE	EP2145180B	4/13/08	Issued
102	Comparative Sequence Analysis Processes and Systems	HK	1140264	7/14/10	Dandina
123.	Comparative Sequence Analysis Processes and	пк	ZL20088001	7/14/10	Pending
124.	Systems Sequence Analysis Processes and	CN	6476.7	4/13/08	Issued
1211	Comparative Sequence Analysis Processes and	CIT	US20130337	1713700	155404
125.	Systems	DV	446	5/16/13	Pending
	Comparative Sequence Analysis Processes and				
126.	Systems	UK	EP2145180B	4/13/08	Issued
	Comparative Sequence Analysis Processes and				
127.	Systems	FR	EP2145180B	4/13/08	Issued
	SEQ 6010				
128.	Integrated Robotic Sample Transfer Device	СТ	9068953	9/24/12	Issued
129.	Integrated Robotic Sample Transfer Device	CT2	14516436	10/16/14	Pending
127.	SEQ 6044	012	1.010.00	10/10/11	
130.	DEQ 0044				
150.	Methods and Compositions for Analyzing Nucleic				
131.	Acid	UT	14402658	5/16/13	Pending
1511		- -			
	RIGAKU ACQUIRED IP				
132.	High Capacity Microarray Dispensing	US	6979425	12/27/05	Issued
133.	Automated Microplate Filling Device and Method	US	6360792	3/26/02	Issued
134.	Automated Microplate Filling Device and Method	US	6148878	11/21/00	Issued

EXHIBIT C

Trademarks

Mark	Application. No.	Registration No.	Status	Class(es)
EpiTYPER®				
UNITED STATES	78/979,370	3,363,895	REGISTERED	09, 42
iPLEX®				
UNITED STATES	78/521,743	3,228,569	REGISTERED	01, 42
iSEQ®				
UNITED STATES	77/349,991	4,031,877	REGISTERED	01, 09
	,			,
MassARRAY®				
EUROPEAN UNION	001148634	001148634	REGISTERED	42
AUSTRALIA	921937	921937	REGISTERED	09
CANADA	1151971	TMA699061	REGISTERED	09
CHINA	3249717	3249717	REGISTERED	09
EUROPEAN UNION	002807113	002807113	REGISTERED	09
HONG KONG	200402014	200402014	REGISTERED	09
JAPAN	2001025246	0004654906	REGISTERED	01,05, 09, 42
SINGAPORE	T0210355C	T0210355C	REGISTERED	09
SOUTH KOREA	4020020036407	4005729450000	REGISTERED	09
TAIWAN	091030221	01065671	REGISTERED	09
UNITED STATES	76/379,539	2,878,299	REGISTERED	09
CIVILED STATES	101317,337	2,070,233	REGISTERED	07
MassExtend®				
JAPAN	2001025245	0004654905	REGISTERED	01
UNITED STATES	76/227,337	2,767,429	REGISTERED	01
UNITED STATES	101221,331	2,707,429	REGISTERED	01
SpectroCHIP®				
GERMANY	39712778.2	39712778	REGISTERED	01, 05, 09
JAPAN	2001025247	0004654907	REGISTERED	01, 05, 09, 42
UNITED STATES	75/982,140	2,602,034	REGISTERED	01, 03, 09, 42
UNITED STATES	73/962,140	2,002,034	REGISTERED	109
HemoCarta TM				
HellioCarta***				
EUROPEAN UNION	12014106	12014106	REGISTERED	01, 42
EUNOFEAN UNION	12014100	12014100	KEOISTEKED	01, 42
Hemo ID TM				
	1668250		ALLOWED	01.42
CANADA	1668250	14105055	ALLOWED	01, 42
CHINA	14195855	14195855	REGISTERED	01
EUROPEAN UNION	12699484	12699484	REGISTERED	01, 42
JAPAN	2014-21085	5728939	REGISTERED	01, 42
UNITED STATES	86/069,315	4,733,377	REGISTERED	01, 42
LungCarta®				
AUSTRALIA	1174938	1174938	REGISTERED	01, 42
EUROPEAN UNION	12015004	12015004	REGISTERED	01, 42
UNITED STATES	85/833,886	4,633,026	REGISTERED	01, 42

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Mark	Application. No.	Registration No.	Status	Class(es)
WIPO	1174938	1174938	REGISTERED	01, 42
LUNGFUSION	86/421,039		ALLOWED	01, 42
AGENA BIOSCIENCE				
AUSTRALIA	1244161	1244161	REGISTERED	09
CANADA	1707073		PENDING	09
CHINA	1244161	1244161	REGISTERED	09
EUROPEAN UNION	13552567	13552567	REGISTERED	09
JAPAN	1244161	1244161	REGISTERED	09
UNITED STATES	86/309,704		ALLOWED	09
WIPO	1244161	1244161	RENEWAL	09

EXHIBIT D

Mask Works

NONE.

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EXHIBIT D

Mask Works

NONE.

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EXHIBIT B

Patents

[TBD]

SEE ATTACHED.

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EXHIBIT C

Trademarks

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EXHIBIT D

Mask Works

NONE.

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RECORDED: 02/03/2017