

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT6046891

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST

CONVEYING PARTY DATA

Name	Execution Date
CARIS MPI, INC.	04/02/2020
CARIS SCIENCE, INC.	04/02/2020

RECEIVING PARTY DATA

Name:	TPG SPECIALTY LENDING, INC.
Street Address:	888 7TH AVENUE
Internal Address:	35TH FLOOR
City:	NEW YORK
State/Country:	NEW YORK
Postal Code:	10106

PROPERTY NUMBERS Total: 120

Property Type	Number
Application Number:	16560999
Application Number:	16193912
Application Number:	16675488
Application Number:	16495690
Application Number:	62731518
Application Number:	62901681
Application Number:	62736331
Application Number:	62906325
Application Number:	62774082
Application Number:	62788689
PCT Number:	US2019064078
Application Number:	62789393
Application Number:	62789884
Application Number:	62964272
Application Number:	62789929
Application Number:	62835999
Application Number:	62836540
Application Number:	62843204

PATENT

Property Type	Number
Application Number:	62855623
Application Number:	62871530
PCT Number:	US2020012815
Application Number:	62789495
Application Number:	62819503
Application Number:	62933964
Application Number:	62965601
Application Number:	62977015
Application Number:	16195274
Application Number:	16783412
Application Number:	16482161
Application Number:	16694851
Application Number:	16497024
Application Number:	16304389
Application Number:	16337367
Application Number:	16467151
Application Number:	16084504
Application Number:	62755921
PCT Number:	US2019021491
Application Number:	62774710
Application Number:	16376851
Application Number:	62808204
Application Number:	62827676
Application Number:	62867826
Patent Number:	8700335
Patent Number:	8831890
Patent Number:	8914239
Patent Number:	8880350
Patent Number:	9383365
Patent Number:	9372193
Patent Number:	8768629
Patent Number:	9053224
Patent Number:	9092392
Patent Number:	9064045
Patent Number:	9058418
Patent Number:	9292660
Patent Number:	9322067
Patent Number:	9389234

Property Type	Number
Application Number:	14687831
Application Number:	15093634
Application Number:	15093653
Application Number:	15093668
Application Number:	15094434
Application Number:	15094457
Application Number:	15094470
Application Number:	15094486
Application Number:	15094507
Application Number:	15094520
Application Number:	15099422
Application Number:	15099442
Application Number:	15099454
Application Number:	15099466
Application Number:	15099512
Application Number:	15099517
Application Number:	15099530
Application Number:	15192792
Application Number:	15494018
Application Number:	15294493
Application Number:	15115617
Application Number:	15762932
Application Number:	15555378
Application Number:	62622679
Application Number:	62631381
Application Number:	62682444
Patent Number:	8216784
Patent Number:	8637254
Patent Number:	9758811
Patent Number:	9315804
Application Number:	15381668
Application Number:	15913772
Application Number:	15913415
Application Number:	14915249
Application Number:	15528417
Application Number:	15871313
Application Number:	15669782
Application Number:	15738564

Property Type	Number
Application Number:	62595954
Application Number:	15745407
Application Number:	15557010
Application Number:	62559238
Application Number:	62561145
Application Number:	62640503
Application Number:	62665361
Application Number:	62700696
Application Number:	62571188
Application Number:	62650522
Application Number:	62682018
Application Number:	62725876
Application Number:	62653445
Patent Number:	7897356
Patent Number:	7888035
Patent Number:	8192954
Patent Number:	8211653
Patent Number:	8278059
Patent Number:	9128101
Patent Number:	9469876
Application Number:	15905247
Application Number:	15905285
Application Number:	62860080
Patent Number:	9958448
Patent Number:	9939443
Patent Number:	9910045

CORRESPONDENCE DATA

Fax Number:

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: 2024347400

Email: JBForrest@mintz.com

Correspondent Name: MINTZ

Address Line 1: 701 PENNSYLVANIA AVENUE

Address Line 2: SUITE 900

Address Line 4: WASHINGTON, D.C. 20004

ATTORNEY DOCKET NUMBER:	048697-917
NAME OF SUBMITTER:	JOHN B. FORREST

SIGNATURE:	/John B. Forrest/
DATE SIGNED:	04/03/2020
Total Attachments: 16 source=Caris Amendment No. 1 - Patent IPSA [Executed]#page1.tif source=Caris Amendment No. 1 - Patent IPSA [Executed]#page2.tif source=Caris Amendment No. 1 - Patent IPSA [Executed]#page3.tif source=Caris Amendment No. 1 - Patent IPSA [Executed]#page4.tif source=Caris Amendment No. 1 - Patent IPSA [Executed]#page5.tif source=Caris Amendment No. 1 - Patent IPSA [Executed]#page6.tif source=Caris Amendment No. 1 - Patent IPSA [Executed]#page7.tif source=Caris Amendment No. 1 - Patent IPSA [Executed]#page8.tif source=Caris Amendment No. 1 - Patent IPSA [Executed]#page9.tif source=Caris Amendment No. 1 - Patent IPSA [Executed]#page10.tif source=Caris Amendment No. 1 - Patent IPSA [Executed]#page11.tif source=Caris Amendment No. 1 - Patent IPSA [Executed]#page12.tif source=Caris Amendment No. 1 - Patent IPSA [Executed]#page13.tif source=Caris Amendment No. 1 - Patent IPSA [Executed]#page14.tif source=Caris Amendment No. 1 - Patent IPSA [Executed]#page15.tif source=Caris Amendment No. 1 - Patent IPSA [Executed]#page16.tif	

PATENT SECURITY AGREEMENT

This PATENT SECURITY AGREEMENT (this “**Agreement**”), dated as of April 2, 2020, is entered into by and among Caris MPI, Inc., a Texas corporation (“**MPI**”), Caris Science, Inc., a Texas corporation (“**CSI**” and, together with MPI, the “**Grantors**” and each, a “**Grantor**”) and TPG SPECIALTY LENDING, INC. (the “**Assignee**”), as Administrative Agent pursuant to (i) that certain Pledge and Security Agreement, dated as of September 21, 2018, among the Assignee, the Grantors and the other grantors party thereto (as amended, restated, supplemented or otherwise modified from time to time, the “**Security Agreement**”), and (ii) that certain Financing Agreement, dated as of September 21, 2018 (as amended, restated, supplemented or otherwise modified from time to time, the “**Financing Agreement**”), between, among others, certain of the Grantors’ affiliates, the Assignee, and certain Lenders party thereto.

Capitalized terms not otherwise defined herein have the respective meanings ascribed to them in the Security Agreement or the Financing Agreement, as applicable. For purposes of this Agreement, “**Patents**” shall mean all of the following now owned or hereafter acquired by each Grantor: (a) all United States and foreign patents and certificates of invention, or similar industrial property rights, and applications for any of the foregoing, including, without limitation, the applications and registrations listed on Schedule A hereto and (b) with respect to any and all of the foregoing: (i) all reissues, divisions, continuations, continuations-in-part, extensions, renewals, and reexaminations thereof, (ii) all rights corresponding thereto throughout the world, (iii) all inventions and improvements described therein, (iv) all rights to sue for past, present and future infringements thereof, (v) all licenses, claims, damages, and proceeds of suit arising therefrom, and (vi) all Proceeds of the foregoing, including, without limitation, licenses, royalties, income, payments, claims, damages, and proceeds of suit.

WHEREAS, pursuant to the Security Agreement, each Grantor has granted in favor of the Assignee a security interest in certain Collateral of such Grantor, including such Grantor’s Patents.

NOW, THEREFORE, in consideration of the foregoing and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, each Grantor and the Assignee hereby agree as follows:

1. Grant of Security Interest

(a) Subject to the terms and conditions of the Security Agreement, to evidence further the security interest granted by each Grantor to the Assignee pursuant to the Security Agreement, as collateral security for the prompt and complete payment or performance in full when due, whether at stated maturity, by required prepayment, declaration, acceleration, demand or otherwise, of such Grantor’s Secured Obligations, each Grantor hereby grants to the Assignee a security interest in and continuing Lien on all of such Grantor’s right, title and interest in, to and under the Patents, whether now owned or existing or hereafter acquired or arising and wherever located.

(b) Notwithstanding anything to the contrary contained in clause (a), the security interest created by this Agreement shall not extend to any Excluded Assets.

(c) The security interest granted hereby is granted concurrently and in conjunction with the security interest granted to the Assignee under the Security Agreement. In the event that any of the provisions of this Agreement are in conflict with the Security Agreement, the provisions of the Security Agreement shall govern. This Agreement shall be coterminous with the term of the Security Agreement.

2. Modifications

This Agreement or any provision hereof may not be changed, waived, or terminated except in accordance with the amendment provisions of the Financing Agreement.

3. Applicable Law

THIS AGREEMENT AND THE RIGHTS AND OBLIGATIONS OF THE PARTIES HEREUNDER SHALL BE GOVERNED BY, AND SHALL BE CONSTRUED AND INTERPRETED IN ACCORDANCE WITH, THE LAWS OF THE STATE OF NEW YORK.

4. Counterparts

This Agreement may be executed by one or more of the parties to this Agreement on any number of separate counterparts (including by telecopy), and all of said counterparts taken together shall be deemed to constitute one and the same instrument.

IN WITNESS WHEREOF, each of the undersigned has caused this Agreement to be duly executed and delivered as of the date first above written.

ASSIGNEE:

TPG SPECIALTY LENDING, INC.,
as Administrative Agent

By: 

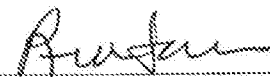
Name: Robert Stanley
Title: President

Address of Assignee:

888 7th Avenue, 35th floor
New York, NY 10106

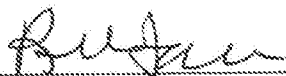
GRANTOR:

CARIS SCIENCE, INC.

By: 
Name: Russ Farr
Title: Secretary and Treasurer

Address of Grantor: 750 West John Carpenter
Freeway, Suite 800, Irving, Texas 75039

CARIS MPI, INC.

By: 
Name: Russ Farr
Title: Secretary and Treasurer

Address of Grantor: 750 West John Carpenter
Freeway, Suite 800, Irving, Texas 75039

[Signature Page to Patent Security Agreement]

SCHEDULE A
TO PATENT SECURITY AGREEMENT

Schedule A to PATENT SECURITY AGREEMENT

U.S. Registered Patents

Grantor	Title	Application Number	Filing Date	Status	Jurisdiction	Patent Number	Registration Date
MPI	SYSTEM AND METHOD FOR DETERMINING INDIVIDUALIZED MEDICAL INTERVENTION FOR A DISEASE STATE	2020200186	5/18/2007	Pending	Australia		
MPI	SYSTEM AND METHOD FOR DETERMINING INDIVIDUALIZED MEDICAL INTERVENTION FOR A DISEASE STATE	266164	5/18/2007	Pending	Israel		
MPI	SYSTEM AND METHOD FOR DETERMINING INDIVIDUALIZED MEDICAL INTERVENTION FOR A DISEASE STATE	2019-142983	5/18/2007	Pending	Japan		
MPI	MOLECULAR PROFILING OF TUMORS	16560999	9/4/2019	Pending	United States		
MPI	MOLECULAR PROFILING OF TUMORS	201818033060	2/11/2010	Pending	India		
MPI	MOLECULAR PROFILING OF TUMORS	2019250106	12/4/2013	Pending	Australia		
MPI	MOLECULAR PROFILING OF IMMUNE MODULATORS	16193912	11/16/2018	Pending	United States		
MPI	MOLECULAR PROFILING FOR CANCER	16/675,488	11/6/2019	Pending	United States		

Grantor	Title	Application Number	Filing Date	Status	Jurisdiction	Patent Number	Registration Date
MPI	GENOMIC STABILITY PROFILING	16/495,690	9/19/2019	Pending	United States		
MPI	GENOMIC STABILITY PROFILING	18 771248.4	3/20/2018	Pending	European Patent Convention		
MPI	GENOMIC STABILITY PROFILING	2018240195	3/20/2018	Pending	Australia		
MPI	GENOMIC STABILITY PROFILING	3,056,896	3/20/2018	Pending	Canada		
MPI	GENOMIC STABILITY PROFILING	269456	3/20/2018	Pending	Israel		
MPI	MOLECULAR PROFILING	62731518	9/14/2018	Expired	United States		
MPI	MOLECULAR PROFILING	62/901,681	9/17/2019	Expired	United States		
MPI	MOLECULAR PROFILING	62736331	9/25/2018	Expired	United States		
MPI	MOLECULAR PROFILING	62/906,325	9/26/2019	Expired	United States		
MPI	NEXT-GENERATION MOLECULAR PROFILING	62/774,082	11/30/2018	Expired	United States		
MPI	NEXT-GENERATION MOLECULAR PROFILING	62/788,689	1/4/2019	Expired	United States		
MPI	NEXT-GENERATION MOLECULAR PROFILING	PCT/US2019/064078	12/2/2019	Pending	Patent Cooperation Treaty		
MPI	NEXT-GENERATION MOLECULAR PROFILING	62/789,393	1/7/2019	Expired	United States		
MPI	NEXT-GENERATION MOLECULAR PROFILING	62/789,884	1/8/2019	Expired	United States		
MPI	NEXT-GENERATION MOLECULAR PROFILING	62/964,272	1/22/2020	Pending	United States		
MPI	NEXT-GENERATION	62/789,929	1/8/2019	Expired	United States		

Grantor	Title	Application Number	Filing Date	Status	Jurisdiction	Patent Number	Registration Date
	MOLECULAR PROFILING						
MPI	MOLECULAR DISEASE CLASSIFIER	62835999	4/18/2019	Pending	United States		
MPI	MOLECULAR DISEASE CLASSIFIER	62836540	4/19/2019	Pending	United States		
MPI	MOLECULAR DISEASE CLASSIFIER	62843204	5/3/2019	Pending	United States		
MPI	MOLECULAR DISEASE CLASSIFIER	62855623	5/31/2019	Pending	United States		
MPI	MOLECULAR DISEASE CLASSIFIER	62871530	7/8/2019	Pending	United States		
MPI	GENOMIC PROFILING SIMILARITY	PCT/US2020/012815	1/8/2020	Pending	Patent Cooperation Treaty		
MPI	DATA PROCESING APPARATUS FOR GENERATING TRAINING DATA STRUCTURES FOR USE IN TRAINING A MACHINE LEARNING MODEL TO PREDICT TREATMENT RESPONSIVENE SS	62/789,495	1/7/2019	Expired	United States		
MPI	GENOMIC ALTERATIONS	62819503	3/15/2019	Pending	United States		
MPI	SYSTEM AND METHOD FOR REDUCING POPULATION BIAS IN MICROSATELLITE INSTABILITY STATUS PREDICTIONS	62/933,964	11/11/2019	Pending	United States		
MPI	SYSTEM AND METHOD FOR	62/965,601	1/24/2020	Pending	United States		

Grantor	Title	Application Number	Filing Date	Status	Jurisdiction	Patent Number	Registration Date
	REDUCING POPULATION BIAS IN MICROSATELLITE INSTABILITY STATUS PREDICTIONS						
MPI	PANOMIC GENOMIC PROFILING SIMILARITY	62977015	2/14/2020	Pending	United States		
CSI	EXOSOME-ASSOCIATED MICRORNA AS A DIAGNOSTIC MARKER	16/195,274	11/19/2018	Pending	United States		
CSI	APTAMERS AND USES THEREOF	2019208237	10/23/2013	Pending	Australia		
CSI	APTAMERS AND USES THEREOF	269045	10/23/2013	Pending	Israel		
CSI	OLIGONUCLEOTIDE PROBES AND USES THEREOF	AU 2019200115	8/28/2014	Pending	Australia		
CSI	THERAPEUTIC OLIGONUCLEOTIDES	16/783,412	2/6/2020	Pending	United States		
CSI	TARGETED OLIGONUCLEOTIDES	16/482,161	7/30/2019	Pending	United States		
CSI	TARGETED OLIGONUCLEOTIDES	18748672.5	2/2/2018	Pending	European Patent Convention		
CSI	TARGETED OLIGONUCLEOTIDES	AU 2018214601	2/2/2018	Pending	Australia		
CSI	TARGETED OLIGONUCLEOTIDES	3,052,297	2/2/2018	Pending	Canada		
CSI	TARGETED OLIGONUCLEOTIDES	268422	2/2/2018	Pending	Israel		
CSI	OLIGONUCLEOTIDE PROBES AND USES THEREOF	16/694,851	11/25/2019	Pending	United States		

Grantor	Title	Application Number	Filing Date	Status	Jurisdiction	Patent Number	Registration Date
CSI	OLIGONUCLEO TIDE PROBES AND USES THEREOF	16/497,024	9/24/2019	Pending	United States		
CSI	OLIGONUCLEO TIDE PROBES AND USES THEREOF	18 775804.0	3/27/2018	Pending	European Patent Convention		
CSI	OLIGONUCLEO TIDE PROBES AND USES THEREOF	2018244320	3/27/2018	Pending	Australia		
CSI	OLIGONUCLEO TIDE PROBES AND USES THEREOF	3,057,368	3/27/2018	Pending	Canada		
CSI	OLIGONUCLEO TIDE PROBES AND USES THEREOF	269714	3/27/2018	Pending	Israel		
CSI	OLIGONUCLEO TIDE PROBES AND USES THEREOF	16304389	5/25/2017	Pending	United States		
CSI	OLIGONUCLEO TIDE PROBES AND USES THEREOF	17803629.9	5/25/2017	Pending	European Patent Convention		
CSI	OLIGONUCLEO TIDE PROBES AND USES THEREOF	AU 2017271579	5/25/2017	Pending	Australia		
CSI	OLIGONUCLEO TIDE PROBES AND USES THEREOF	3,025,486	5/25/2017	Pending	Canada		
CSI	OLIGONUCLEO TIDE PROBES AND USES THEREOF	263170	5/25/2017	Pending	Israel		
CSI	OLIGONUCLEO TIDE PROBES AND USES THEREOF	16/337,367	3/27/2019	Pending	United States		
CSI	OLIGONUCLEO TIDE PROBES AND USES THEREOF	EP17 857369.7	9/27/2017	Pending	European Patent Convention		
CSI	OLIGONUCLEO TIDE PROBES	2017336562	9/27/2017	Pending	Australia		

Grantor	Title	Application Number	Filing Date	Status	Jurisdiction	Patent Number	Registration Date
	AND USES THEREOF						
CSI	OLIGONUCLEOTIDE PROBES AND USES THEREOF	3038502	9/27/2017	Pending	Canada		
CSI	OLIGONUCLEOTIDE PROBES AND USES THEREOF	265643	9/27/2017	Pending	Israel		
CSI	NUCLEIC ACID-BASED ASSEMBLY AND USES THEREOF	16/467,151	6/6/2019	Pending	United States		
CSI	NUCLEIC ACID-BASED ASSEMBLY AND USES THEREOF	EP17829613.3	12/7/2017	Pending	European Patent Convention		
CSI	NUCLEIC ACID-BASED ASSEMBLY AND USES THEREOF	2017371416	12/7/2017	Pending	Australia		
CSI	NUCLEIC ACID-BASED ASSEMBLY AND USES THEREOF	3046280	12/7/2017	Pending	Canada		
CSI	NUCLEIC ACID-BASED ASSEMBLY AND USES THEREOF	267155	12/7/2017	Pending	Israel		
CSI	OLIGONUCLEOTIDE PROBES AND USES THEREOF	16084504	9/12/2018	Pending	United States		
CSI	OLIGONUCLEOTIDE PROBES AND USES THEREOF	17767690.5	10/4/2018	Pending	European Patent Convention		
CSI	OLIGONUCLEOTIDE PROBES AND USES THEREOF	AU 2017235661	9/16/2018	Pending	Australia		
CSI	OLIGONUCLEOTIDE PROBES AND USES THEREOF	3,018,066	9/17/2018	Pending	Canada		

Grantor	Title	Application Number	Filing Date	Status	Jurisdiction	Patent Number	Registration Date
CSI	OLIGONUCLEO TIDE PROBES AND USES THEREOF	261832	9/17/2018	Pending	Israel		
CSI	OLIGONUCLEO TIDE PROBES AND USES THEREOF	201780027966.6	9/17/2018	Pending	China (People's Republic)		
CSI	OLIGONUCLEO TIDE PROBES AND USES THEREOF	2018-568182	9/17/2018	Pending	Japan		
CSI	OLIGONUCLEO TIDE PROBES AND USES THEREOF	10-2018-7029624	10/15/2018	Pending	Korea, Republic of		
CSI	OLIGONUCLEO TIDE PROBES AND USES THEREOF	62755921	11/5/2018	Expired	United States		
CSI	OLIGONUCLEO TIDE PROBES AND USES THEREOF	PCT/US2019/021491	3/8/2019	Pending	Patent Cooperation Treaty		
CSI	APTAMERS FOR TARGETED ACTIVATION OF T CELL-MEDIATED IMMUNITY	PCT/IB2019/052641	3/29/2019	Pending	Patent Cooperation Treaty		
CSI	OLIGONUCLEO TIDE PROBES AND USES IN PROSTATE CANCER	62774710	12/3/2018	Pending	United States		
CSI	PROFILING EXTRACELLULAR VESICLES	16376851	4/5/2019	Pending	United States		
CSI	OLIGONUCLEO TIDE PROBES, TARGETS, AND USES THEREOF	62808204	2/20/2019	Pending	United States		
CSI	OLIGONUCLEO TIDE PROBES, TARGETS, AND USES THEREOF	62827676	4/1/2019	Pending	United States		
CSI	RAPID APTAMER ENRICHMENT AND TARGET ANALYSIS	62867826	6/27/2019	Pending	United States		

Grantor	Title	Application Number	Filing Date	Status	Jurisdiction	Patent Number	Registration Date
MPI	SYSTEM AND METHOD FOR DETERMINING INDIVIDUALIZED MEDICAL INTERVENTION FOR A DISEASE STATE	11/750,721	5/18/2007	Issued	United States	US 8,700,335	4/15/2014
MPI	SYSTEM AND METHOD FOR DETERMINING INDIVIDUALIZED MEDICAL INTERVENTION FOR A DISEASE STATE	14052503	10/11/2013	Issued	United States	US 8,831,890	9/9/2014
MPI	SYSTEM AND METHOD FOR DETERMINING INDIVIDUALIZED MEDICAL INTERVENTION FOR A DISEASE STATE	14143959	12/30/2013	Issued	United States	US 8,914,239	12/16/2014
MPI	SYSTEM AND METHOD FOR DETERMINING INDIVIDUALIZED MEDICAL INTERVENTION FOR A DISEASE STATE	14170466	1/31/2014	Issued	United States	US 8,880,350	11/4/2014
MPI	SYSTEM AND METHOD FOR DETERMINING INDIVIDUALIZED MEDICAL INTERVENTION FOR A DISEASE STATE	14473871	8/29/2014	Issued	United States	US 9,383,365	7/5/2016
MPI	SYSTEM AND METHOD FOR DETERMINING INDIVIDUALIZED MEDICAL INTERVENTION FOR A DISEASE STATE	14473881	8/29/2014	Issued	United States	US 9,372,193	6/21/2016
MPI	MOLECULAR PROFILING OF TUMORS	12/658,770	2/12/2010	Issued	United States	US 8,768,629	7/1/2014

Grantor	Title	Application Number	Filing Date	Status	Jurisdiction	Patent Number	Registration Date
MPI	MOLECULAR PROFILING FOR CANCER	14175728	2/7/2014	Issued	United States	US 9,053,224	6/9/2015
MPI	MOLECULAR PROFILING FOR CANCER	14175781	2/7/2014	Issued	United States	US 9,092,392	7/28/2015
MPI	MOLECULAR PROFILING FOR CANCER	14175800	2/7/2014	Issued	United States	US 9,064,045	6/3/2015
MPI	MOLECULAR PROFILING OF TUMORS	14187008	2/21/2014	Issued	United States	US 9,058,418	6/16/2015
MPI	MOLECULAR PROFILING OF TUMORS	14187015	2/21/2014	Issued	United States	US 9,292,660	3/22/2016
MPI	MOLECULAR PROFILING OF TUMORS	14249261	4/9/2014	Issued	United States	US 9,322,067	4/26/2016
MPI	MOLECULAR PROFILING OF TUMORS	14551364	11/24/2014	Issued	United States	US 9,389,234	7/12/2016
MPI	MOLECULAR PROFILING OF TUMORS	14687831	4/15/2015	Pending	United States		
MPI	MOLECULAR PROFILING OF TUMORS	15093634	4/7/2016	Pending	United States		
MPI	MOLECULAR PROFILING OF TUMORS	15093653	4/7/2016	Pending	United States		
MPI	MOLECULAR PROFILING OF TUMORS	15093668	4/7/2016	Pending	United States		
MPI	MOLECULAR PROFILING OF TUMORS	15094434	4/8/2016	Pending	United States		
MPI	MOLECULAR PROFILING OF TUMORS	15094457	4/8/2016	Pending	United States		
MPI	MOLECULAR PROFILING OF TUMORS	15094470	4/8/2016	Pending	United States		
MPI	MOLECULAR PROFILING OF TUMORS	15094486	4/8/2016	Pending	United States		
MPI	MOLECULAR PROFILING OF TUMORS	15094507	4/8/2016	Pending	United States		

Grantor	Title	Application Number	Filing Date	Status	Jurisdiction	Patent Number	Registration Date
MPI	MOLECULAR PROFILING OF TUMORS	15094520	4/8/2016	Pending	United States		
MPI	MOLECULAR PROFILING OF TUMORS	15099422	4/14/2016	Pending	United States		
MPI	MOLECULAR PROFILING OF TUMORS	15099442	4/14/2016	Pending	United States		
MPI	MOLECULAR PROFILING OF TUMORS	15099454	4/14/2016	Pending	United States		
MPI	MOLECULAR PROFILING OF TUMORS	15099466	4/14/2016	Pending	United States		
MPI	MOLECULAR PROFILING OF TUMORS	15099512	4/14/2016	Pending	United States		
MPI	MOLECULAR PROFILING OF TUMORS	15099517	4/14/2016	Pending	United States		
MPI	MOLECULAR PROFILING OF TUMORS	15099530	4/14/2016	Pending	United States		
MPI	MOLECULAR PROFILING OF TUMORS	15192792	6/24/2016	Pending	United States		
MPI	MOLECULAR PROFILING OF TUMORS	15494018	4/21/2017	Pending	United States		
MPI	MOLECULAR PROFILING FOR CANCER	15294493	10/14/2016	Pending	United States		
MPI	MOLECULAR PROFILING OF IMMUNE MODULATORS	15115617	7/29/2016	Pending	United States		
CSI	METHOD, APPARATUS, AND COMPUTER PROGRAM PRODUCT FOR ANALYZING BIOLOGICAL DATA	15762932	3/23/2018	Pending	United States		
MPI	MOLECULAR PROFILING FOR CANCER	15555378	9/1/2017	Pending	United States		

Grantor	Title	Application Number	Filing Date	Status	Jurisdiction	Patent Number	Registration Date
MPI	TUMOR MUTATION PROFILING	62622679	1/26/2018	Pending	United States		
MPI	TUMOR MUTATION PROFILING	62631381	2/15/2018	Pending	United States		
MPI	MOLECULAR PROFILING	62682444	6/8/2018	Pending	United States		
CSI		12/524,462	7/25/2008	Issued	United States	8,216,784	7/10/2012
CSI		12/711,499	2/24/2010	Issued	United States	8,637,254	1/28/2014
CSI		14/477,907	10/10/2008	Issued	United States	9758811	9/12/2017
CSI		12/739,087	10/22/2008	Issued	United States	US 9,315,804	4/19/2016
CSI		15/381,668	12/16/2016	Pending	United States		
CSI		14438172	10/23/2013	Allowed	United States	9,958,448	5/1/2018
CSI		15913772	3/6/2018	Pending	United States		
CSI		14652728	6/16/2015	Allowed	United States	9939443	4/10/2018
CSI		15913415	3/6/2018	Pending	United States		
CSI		14915249	8/28/2014	Pending	United States		
CSI		15528417	11/23/2015	Pending	United States		
CSI		15258962	9/7/2016	Allowed	United States	9910045	3/6/2018
CSI		15871313	1/15/2018	Pending	United States		
CSI		15669782	10/10/2008	Pending	United States		
CSI		15738564	12/20/2017	Pending	United States		
CSI		62595954	12/7/2017	Pending	United States		
CSI		15745407	1/16/2018	Pending	United States		
CSI		15557010	9/8/2017	Pending	United States		
CSI		62559238	9/15/2017	Pending	United States		
CSI		62561145	9/20/2017	Pending	United States		
CSI		62640503	3/8/2018	Pending	United States		
CSI		62665361	5/1/2018	Pending	United States		
CSI		62700696	7/19/2018	Pending	United States		
CSI		62571188	10/11/2017	Pending	United States		
CSI		62650522	3/30/2018	Pending	United States		
CSI		62682018	6/7/2018	Pending	United States		
CSI		62725876	8/31/2018	Pending	United States		
CSI		62653445	4/5/2018	Pending	United States		

Grantor	Title	Application Number	Filing Date	Status	Jurisdiction	Patent Number	Registration Date
CSI	Methods and systems of using exosomes for determining phenotypes	12591226	11/12/2009	Issued	United States	7897356	3/1/2011
CSI	Methods for assessing RNA patterns	12609847	10/30/2009	Issued	United States	7888035	2/15/2011
CSI	Methods for assessing RNA patterns	12963468	12/8/2010	Issued	United States	8192954	6/5/2012
CSI	Methods and systems of using exosomes for determining phenotypes	13009285	1/19/2011	Issued	United States	8211653	7/3/2012
CSI	METHODS AND SYSTEMS OF USING EXOSOMES FOR DETERMINING PHENOTYPES	13009393	1/19/2011	Issued	United States	8278059	10/2/2012
CSI	Biomarkers for theranostics	13581795	3/1/2011	Issued	United States	9128101	9/8/2015
CSI	CIRCULATING BIOMARKERS FOR METASTATIC PROSTATE CANCER	13639756	4/24/2013	Issued	United States	9469876	10/18/2016
CSI	APTAMERS AND USES THEREOF	15905247	2/26/2018	Pending	United States		
CSI	COMPOSITIONS AND METHODS FOR APTAMER SCREENING	15905285	2/26/2018	Pending	United States		
MPI	MOLECULAR PROFILING	62860080	6/18/2019	Pending	United States		