

TRADEMARK ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

ETAS ID: TM515588

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	RELEASE OF SECURITY INTEREST

CONVEYING PARTY DATA

Name	Formerly	Execution Date	Entity Type
MIDCAP FINANCIAL TRUST, as Agent		03/22/2019	Trust: DELAWARE

RECEIVING PARTY DATA

Name:	BIONANO GENOMICS, INC.
Street Address:	9640 Towne Centre Drive, #100
City:	San Diego
State/Country:	CALIFORNIA
Postal Code:	92121
Entity Type:	Corporation: DELAWARE

PROPERTY NUMBERS Total: 12

Property Type	Number	Word Mark
Registration Number:	4518478	BIONANO GENOMICS
Registration Number:	4544066	IRYS
Registration Number:	4452118	IRYSVIEW
Registration Number:	4502411	IRYSCHIP
Registration Number:	4502412	IRYSPREP
Registration Number:	5045903	BIONANO GENOMICS
Registration Number:	4646747	BIONANO GENOMICS
Registration Number:	5076021	BIONANO GENOMICS
Registration Number:	4708378	IRYSSOLVE
Registration Number:	5439542	BIONANO ACCESS
Registration Number:	5434448	SAPHYR
Registration Number:	5434447	SAPHYR CHIP

CORRESPONDENCE DATA

Fax Number: 4156932222

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: 4156932000

Email: crhem@cooley.com

Correspondent Name: Cooley LLP

TRADEMARK

Address Line 1: 101 California Street, 5th Floor
Address Line 4: San Francisco, CALIFORNIA 94111

ATTORNEY DOCKET NUMBER: 314601-100

NAME OF SUBMITTER: C. Rhem

SIGNATURE: /CR/

DATE SIGNED: 03/22/2019

Total Attachments: 14

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**RELEASE OF SECURITY INTEREST
IN INTELLECTUAL PROPERTY**

This Release of Security Interest in Intellectual Property, dated as of March 22, 2019 (this “**IP Collateral Release**”), is made by **MIDCAP FINANCIAL TRUST**, a Delaware statutory trust, (in such capacity, “**Agent**”), in favor of **BIONANO GENOMICS, INC.**, a Delaware corporation (the “**Grantor**”):

WHEREAS, pursuant to that certain Intellectual Property Security Agreement, dated as of June 29, 2018 (as the same may have been amended, modified, restated, replaced or supplemented from time to time, the “**IP Security Agreement**”; capitalized terms used herein have the definition provided for in the IP Security Agreement), recorded with the United States Patent and Trademark Office on July 3, 2018 at Reel/Frame No. 6405/0471 (Trademarks) and at Reel/Frame No. 046472/06433 (Patents), BioNano granted Agent, on behalf of the Lenders, a security interest in and to all of its right, title and interest in all of BioNano’s intellectual property, including those listed on Exhibits A through D thereto;

WHEREAS, the Grantors have requested that Agent release its security interest in and to the trademark assets as more particularly described on Schedule A attached hereto (the “**Released Trademarks**”).

WHEREAS, the Grantors have requested that Agent release its security interest in and to the patent assets as more particularly described on Schedule B attached hereto (the “**Released Patents**”).

WHEREAS, the Grantors have requested that Agent release its security interest in and to the various intellectual property assets set forth in Sections (a) through (j) of each IP Security Agreement (together with the Released Patents and Released Trademarks, the “**Released IP Collateral**”).

NOW, THEREFORE, Agent, without recourse, representation or warranty and at Grantor’s sole cost and expense, hereby releases all of its right, title and interest in and to the Released IP Collateral.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, Agent has caused this IP Collateral Release to be duly executed and delivered by its duly authorized officer as of the date first written above.

AGENT:

MIDCAP FINANCIAL TRUST

as Agent

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

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

By: 
Name: Maurice Amsellem
Title: Authorized Signatory

SCHEDULE A
TRADEMARKS

Trademark Name	Country	Status	Application No.	Reg Date	Reg No
BIONANO GENOMICS	US	Registered	85/677046	04/22/14	4518478
BIONANO GENOMICS	LB	Registered	9856	11/29/12	146661
BIONANO GENOMICS	WO	Registered	1147820	01/10/13	1147820
IRYS	AU	Pending	1150083		
IRYS	CN	Registered	1150083	01/09/13	1150083
IRYS	EM	Registered	1150083	01/09/13	1150083
IRYS	JP	Pending	1150083		
IRYS	KR	Pending	1150083		
IRYS	US	Registered	85/677024	06/3/14	4544066
IRYS	HK	Published	303501017		
IRYS	TW	Pending	104048282		
IRYS	WO	Registered	1150083	01/09/13	1150083
IRYSVIEW	AU	Published	1151113		
IRYSVIEW	CN	Pending	1151113		
IRYSVIEW	EM	Registered	1151113	01/10/13	1151113
IRYSVIEW	JP	Pending	1151113		
IRYSVIEW	KR	Pending	1151113		
IRYSVIEW	US	Registered	86/677059	12/17/13	4452118
IRYSVIEW	HK	Published	303501026		
IRYSVIEW	TW	Pending	104048283		
IRYSVIEW	WO	Registered	1151113	01/10/13	1151113
IRYSCHIP	AU	Pending	1150576		1150576
IRYSCHIP	CN	Registered	1150576	01/10/13	1150576
IRYSCHIP	EM	Registered	1150576	01/10/13	1150576
IRYSCHIP	JP	Pending	1150576		
IRYSCHIP	KR	Pending	1150576		
IRYSCHIP	US	Registered	86/677063	03/25/14	4502411
IRYSCHIP	HK	Published	303500991		
IRYSCHIP	TW	Pending	104048284		
IRYSCHIP	WO	Registered	1150576	01/10/13	1150576
IRYSPREP	AU	Published	1161517		
IRYSPREP	CN	Registered	1161517	01/10/13	1161517
IRYSPREP	EM	Registered		01/10/13	1161517
IRYSPREP	JP	Pending	1161517		

IRYSPREP	KR	Pending	1161517		
IRYSPREP	US	Registered	85/677075	03/25/14	4502412
IRYSPREP	HK	Published	303501035		
IRYSPREP	TW	Pending	104048286		
IRYSPREP	WO	Registered	1161517	01/10/13	1161517
(IRYS in Chinese Characters)	CN	Registered	12190539	03/21/15	12190539
BIONANO GENOMICS	CN	Pending	1219073		
BIONANO GENOMICS	US	Registered	86/050497	09/20/13	5045903
BIONANO GENOMICS	US	Registered	86/975215	11/25/14	4646747
BIONANO GENOMICS	AU	Pending	1713142		
BIONANO GENOMICS	HK	Published	303501044		
BIONANO GENOMICS	JP	Pending	2015-077618		
BIONANO GENOMICS	KR	Pending	45-2015-0007523		
BIONANO GENOMICS	TW	Pending	104048287		
BIONANO GENOMICS	WO	Registered	1219073	11/22/13	1219073
BIONANO GENOMICS (design)	CN	Pending	1267947		
BIONANO GENOMICS (design)	EM	Published	1267947		
BIONANO GENOMICS (design)	US	Registered	86/361387	11/08/16	5076021
BIONANO GENOMICS (design)	AU	Pending	1717010		
BIONANO GENOMICS (design)	HK	Published	303501053		
BIONANO GENOMICS (design)	JP	Pending	2015-081992		
BIONANO GENOMICS (design)	KR	Pending	45-2015-0008130		
BIONANO GENOMICS (design)	TW	Pending	104048290		
BIONANO GENOMICS (design)	WO	Registered	1267947	02/03/15	1267947
BIONANO GENOMICS	CN	Registered	14408014	05/28/15	14408014
IRYSSOLVE	AU	Published	1253507		
IRYSSOLVE	CN	Pending	1253507		
IRYSSOLVE	EM	Pending	1253507		
IRYSSOLVE	JP	Pending	1253507		
IRYSSOLVE	KR	Pending	1253507		
IRYSSOLVE	US	Registered	86/400672	03/24/15	4708378

IRYSSOLVE	HK	Published	303501008		
IRYSSOLVE	TW	Pending	104048293		
IRYSSOLVE	WO	Registered	1253507	03/11/15	1253507
BIONANO ACCESS	US	Registered	87/375426	04/03/18	5439542
SAPHYR	US	Registered	87/314801	03/27/18	5434448
SAPHYR CHIP	US	Registered	87/314787	03/27/2018	5434447

SCHEDULE B

PATENTS

Title	Country	Filing/Pub/Grant No.	Filing/Pub/Grant Date	Status
Nanonozzle device arrays: their preparation and use for macromolecular analysis	US	12/374141 2009/0305273 9061907	7/19/07 12/10/09 6/23/15	Issued
Nanonozzle device arrays: their preparation and use for macromolecular analysis	US	14/712816 US2015/0323518	5/14/15 11/12/15	Pending
Nanonozzle device arrays: their preparation and use for macromolecular analysis	WO	PCT/US07/16408 WO/2008/079169	7/19/07 7/3/08	Converted (expired)
Nanonozzle device arrays: their preparation and use for macromolecular analysis	AU	2007338862 AU2007338862	7/19/07 5/24/14	Issued
Nanonozzle device arrays: their preparation and use for macromolecular analysis	CA	CA2658122 CA2658122	7/19/2007 9/2/14	Issued
Nanonozzle device arrays: their preparation and use for macromolecular analysis	CN	201310054745.1 CN103203256A ZL201310054745.1	2/20/13 7/17/13 9/23/15	Issued
Nanonozzle device arrays: their preparation and use for macromolecular analysis	EP	EP2007872156 EP2049262	7/19/07 4/22/09	Pending
Nanonozzle device arrays: their preparation and use for macromolecular analysis	JP	2014-089510 2014-158493A	4/23/14 9/4/14	Pending
Nanonozzle device arrays: their preparation and use for macromolecular analysis	SG	2011-05244-6 173398 173398	7/19/07 8/29/11 3/12/15	Issued
Methods of macromolecular analysis using nanochannel arrays	US	12/057,987 2008/0242556 US8,722,327	3/28/08 10/2/08 5/13/14	Issued
Methods of macromolecular analysis using nanochannel arrays	US	14/195,474 2014/0249039	3/3/14 9/4/14	Pending
Methods of macromolecular analysis using nanochannel arrays	WO	PCT/US2008/058671 WO/2008/121828	3/28/08 10/9/08	Converted (expired)
Methods of macromolecular analysis using nanochannel arrays	AU	2008232616 2008232616	3/28/08 2/18/10 11/20/14	Issued
Methods of macromolecular analysis using nanochannel arrays	AU	2014256367	10/30/14	Pending
Methods of macromolecular analysis using nanochannel arrays	CA	2682275	3/28/08	Pending
Methods of macromolecular	CN	ZL2008800017550.70	3/28/2008	Issued

analysis using nanochannel arrays		CN101765462A ZL2008800017550.7	6/30/10 6/5/13	
Methods of macromolecular analysis using nanochannel arrays	CN	201310189106.60 CN 103305402A	5/21/13 9/18/13	Pending
Methods of macromolecular analysis using nanochannel arrays	EP	2008-744609.2 EP2136922 EP2136922	3/28/08 12/30/09 12/5/12	Issued
Methods of macromolecular analysis using nanochannel arrays	UK			Issued
Methods of macromolecular analysis using nanochannel arrays	FR			Issued
Methods of macromolecular analysis using nanochannel arrays	DE			Issued
Methods of macromolecular analysis using nanochannel arrays	SE			Issued
Methods of macromolecular analysis using nanochannel arrays	EP	2013150068.8 EP2604344	1/2/13 6/19/13	Pending
Methods of macromolecular analysis using nanochannel arrays	JP	2010-501259 JP5491378	3/28/08 3/7/14	Issued
Methods of macromolecular analysis using nanochannel arrays	JP	2013-258107 P2014-97058A	2/13/13 5/29/14	Pending
Methods of macromolecular analysis using nanochannel arrays	KR	10-2009-7022447 10-1522741	3/28/08 5/18/25	Issued
Methods of macromolecular analysis using nanochannel arrays	SG	2012-02082-2 179524 179524	3/28/08 4/27/12 9/23/15	Issued
Methods and devices for single molecule whole genomic analysis	US	13/001,697 2011/0171634 US8,628,919	3/22/11 7/14/11 1/14/14	Issued
Methods and devices for single molecule whole genomic analysis	US	13/765,353 US2013/0240357	2/12/13 9/19/13	Pending
Methods and devices for single molecule whole genomic analysis	WO	PCT/US2009/049244 WO/2010/002883	6/30/09 1/7/10	Converted (expired)
Methods and devices for single molecule whole genomic analysis	AU	2009267086	6/30/09	Pending
Methods and devices for single molecule whole genomic analysis	CA	CA2729159	6/30/09	Pending
Methods and devices for single molecule whole genomic analysis	CN	2009-80125335.30 CN 102292451A	6/30/09 12/21/2011	Pending

Methods and devices for single molecule whole genomic analysis	EP	EP09774334.8 EP2318547	6/30/09 5/11/11	Pending
Methods and devices for single molecule whole genomic analysis	EP	EP13179160.0 EP2664677	9/2/13 11/20/13	Pending
Methods and devices for single molecule whole genomic analysis	HK	2012-105208.3 1166108A	6/30/09 10/19/12	Pending
Methods and devices for single molecule whole genomic analysis	JP	2011-516813 5730762	6/30/09 4/17/15	Issued
Methods and devices for single molecule whole genomic analysis	JP	2015-078505 P2015-163073A	4/7/15 9/10/15	Pending
Integrated analysis devices, fabrication methods and analysis techniques	US	12/996,410 2011/0296903	2/6/11 12/8/11	Pending
Integrated nanofluidic analysis devices, fabrication methods and analysis techniques	WO	PCT/US2009/046427 WO/2009/149362	6/5/09 12/10/09	Converted (expired)
Integrated nanofluidic analysis devices, fabrication methods and analysis techniques	AU	2009256064 2009256064	6/5/09 08/13/15	Issued
Integrated nanofluidic analysis devices, fabrication methods and analysis techniques	AU	2015205826	07/20/15	Pending
Integrated nanofluidic analysis devices, fabrication methods and analysis techniques	CA	2727095	6/5/09	Pending
Integrated nanofluidic analysis devices, fabrication methods and analysis techniques	CN	2009-80130482.X CN 102369059A ZL200980130482.X	6/5/09 03/07/12 09/24/14	Issued
Integrated nanofluidic analysis devices, fabrication methods and analysis techniques	CN	CN201410462892.7 CN 104359874A	9/12/12 02/18/15	Pending
Integrated nanofluidic analysis devices, fabrication methods and analysis techniques	EP	2009759520 EP2296813	6/5/09 03/23/11	Pending
Integrated nanofluidic analysis devices, fabrication methods and analysis techniques	HK	11109208.6 1154827A	6/5/09 5/4/12	Pending
Integrated nanofluidic analysis devices, fabrication methods and analysis techniques	HK	15107980.0	8/18/15	Pending
Integrated nanofluidic analysis devices, fabrication methods and analysis techniques	JP	2011-512694	6/5/09	Pending
Integrated nanofluidic analysis devices, fabrication methods and analysis techniques	JP	2014-233087 2015-96854A	11/17/14 5/21/15	Pending

Integrated nanofluidic analysis devices, fabrication methods and analysis techniques	SG	2010-08920-9 167147 167147	6/5/2009 1/28/11 7/31/13	Issued
Integrated nanofluidic analysis devices, fabrication methods and analysis techniques	KR	10-2011-7000192	6/5/09	Pending
Integrated nanofluidic analysis devices, fabrication methods and analysis techniques	KR	10-2016-7001826	1/21/16	Pending
Polynucleotide mapping and sequencing	US	13/129634 2011/0306504 9181578	6/23/2011 12/15/11 11/10/15	Issued
Methods and devices for single molecule whole genomic analysis	US	14/877818	10/7/15	Pending
Polynucleotide mapping and sequencing	WO	PCT/US2009/064996 WO/2010/059731	11/18/09 5/27/2010	Converted (expired)
Polynucleotide mapping and sequencing	AU	209316628	11/18/09 9/8/11	Pending
Polynucleotide mapping and sequencing	CA	2744064	11/18/09	Pending
Polynucleotide mapping and sequencing	CN	2009-80154567.1 CN10229454A ZL200980154567.1	11/18/09 12/21/11 11/26/14	Issued
Polynucleotide mapping and sequencing	CN	201410584764.X 104372080A	10/27/14 2/25/15	Pending
Polynucleotide mapping and sequencing	EP	2009-760398.9 EP2370594 EP2370594	11/18/2009 10/5/11 1/8/14	Issued
Polynucleotide mapping and sequencing	GB	2009-760398.9	11/18/09	Issued
Polynucleotide mapping and sequencing	DE	2009-760398.9	11/18/09	Issued
Polynucleotide mapping and sequencing	HK	12105207.4 1166107A HK1166107	11/18/09 10/19/12 9/25/15	Issued
Polynucleotide mapping and sequencing	CN	15108141.4	8/21/15 1/29/16	Pending
Polynucleotide mapping and sequencing	JP	2011537585 P2012-509083A	11/18/09 4/19/12	Allowed
Polynucleotide mapping and sequencing	JP	2015-227656	11/18/15	Pending
Polynucleotide mapping and sequencing	SG	2011-03550-8 SG171,325 SG171,325	11/18/09 7/28/11 11/29/13	Issued
Devices and methods for dynamic determination of sample spatial orientation and dynamic repositioning	WO	PCT/US2010/035253 WO/2010/135323	5/18/2010 11/25/10	Converted (expired)

Devices and methods for dynamic determination of sample spatial orientation and dynamic repositioning	EP	EP2010725926 EP2433087 EP2433087	5/18/10 3/28/12 1/21/15	Issued
Systems and methods for assessing biomolecule characteristics	WO	PCT/US2011/057115 WO/2012/054735	10/20/11 4/26/12	Converted (expired)
Nanoanalyzer Systems and Methods	US	13/880,365 2014/0030705	4/18/2013 1/30/2014	Pending
Nanoanalyzer Systems and Methods	AU	2011316989	4/18/13	Pending
Systems and methods for assessing biomolecule characteristics	CA	2815359	4/18/13	Pending
Systems and methods for assessing biomolecule characteristics	CN	CN103443290A CN201180060380.2	12/11/2013 6/14/2013	Pending
Systems and methods for assessing biomolecule characteristics	HK	HK 14105511.3 HK 1192287A	6/11/14	Pending
Systems and methods for assessing biomolecule characteristics	EP	EP11777008.1 EP2630258	5/16/13 8/28/13	Pending
Systems and methods for assessing biomolecule characteristics	JP	2013-535092 2013-542730A	4/17/13 11/28/13	Pending
Systems and methods for assessing biomolecule characteristics	KR	10-2013-7012549	5/13/13	Pending
Systems and methods for assessing biomolecule characteristics	SG	10201508373U	10/9/15	Pending
Systems and methods for assessing biomolecule characteristics	RU	2003/117936	4/18/13	Pending
Physical Map Construction of Whole Genome and Pooled Clone Mapping In Nano-Channel Array	US	13/606,819	9/7/12	Pending
Nanochannel arrays and near-field illumination devices for polymer analysis and related methods	US	13/498846 2012/0244635	9/27/10 9/27/12	Pending
Nanochannel arrays and near-field illumination devices for polymer analysis and related methods	WO	PCT/US2010/050362 WO/2011/038327	9/27/10 3/31/11	Converted (expired)
Nanochannel arrays and near-field illumination devices for polymer analysis and related methods	HK	13102315.9 1175215A	2/25/2013 6/28/2013	Pending

Nanochannel arrays and near-field illumination devices for polymer analysis and related methods	CN	2010-80043518.3	9/27/10	Pending
Methods and related devices for single molecule whole genomic analysis	PCT	PCT/US 10/53513 WO2011/050147	10/21/10 4/28/11	Converted (expired)
Methods and related devices for single molecule whole genomic analysis	JP	2012535362 JP2013-507946A	10/21/2010 3/7/13	Pending
Methods for single-molecule analysis	US	14/171,369 US2014/0221218	2/4/2014 8/7/14	Pending
Methods for single-molecule analysis	AU	2014215586	8/5/15	Pending
Methods for single-molecule analysis	CA	2900054	7/31/15	Pending
Methods for single-molecule analysis	CN	201480007595.1 CN105143462A	8/5/15 12/9/15	Pending
Methods for single-molecule analysis	EP	14748636.9 2954069	8/28/15 12/16/15	Pending
Methods for single-molecule analysis	JP	2015-556985	8/5/15	Pending
Methods for single-molecule analysis	US	14/765537 US2015/036706	8/3/15 12/24/15	Pending
Methods for single-molecule analysis	WO	PCT/US2014/014501 WO2014/123822	2/14/14 8/14/14	Pending
Characterization of Molecules in Nanofluidics	WO	PCT/US2014/17226	2/19/14	Pending
Characterization of Molecules in Nanofluidics	US	14/768422	8/17/15	Pending
Characterization of Molecules in Nanofluidics	AU	2014219001	9/15/15	Pending
Characterization of Molecules in Nanofluidics	CA	2901460	8/14/15	Pending
Characterization of Molecules in Nanofluidics	CN	201480009730.6	8/20/15	Pending
Characterization of Molecules in Nanofluidics	EP	14753475.4 2959015	9/18/15 12/30/15	Pending
Characterization of Molecules in Nanofluidics	JP	2015-558929	8/20/15	Pending
System for Nanoanalysis	RU	2013140977 RU142580	8/2/2013 5/27/14	Issued
System for Nanoanalysis	WO	PCT/US2014/049442 WO 2015/017801	8/1/14 2/5/15	Pending
Analysis of Polynucleotides	WO	PCT/US14/41568	6/9/14	Pending
Analysis of Polynucleotides	US	14/897213	12/9/15	Pending
Analysis of Polynucleotides	CN	Filing instructed		
Analysis of Polynucleotides	EP	14811715.3	1/7/16	Pending
Analysis of Polynucleotides	JP	Filing instructed		
Processing of Polynucleotides	US	61/949,464	3/7/14	Pending

Processing of Polynucleotides	WO	PCT/US2015/019027 WO2015/134785	3/5/15	Pending
Improved Methods of Determining Nucleic Acid Structural Information	WO	PCT/US2015/016194 WO2015/126840	2/17/15 8/27/15	Pending
Photocleavage method and apparatus to clean fluidic devices	WO	PCT/US2015/047688	8/31/15	Pending
Isolation of Megabase DNA from Plant and Animal Tissue	US	14/802659 2016/0017316	7/17/15 1/21/16	Pending
Reduction of bias in genomic coverage measurements	US	PCT/US2015/017356 WO 2015/130696	2/24/15 9/3/15	Pending
EMBEDDED NOBLE METAL ELECTRODES IN	US	14952161 9804122	11/25/2015 10/31/2017	Issued
EMBEDDED NOBLE METAL ELECTRODES IN	US	14928596	10/30/2015	Pending
REDUCTION OF BIAS IN GENOMIC COVERAGE MEASUREMENTS	US	15117689	08/09/2016	Pending
PROCESSING OF POLYNUCLEOTIDES	US	15123457	09/02/2016	Pending
METHODS AND DEVICES FOR SINGLE-MOLECULE WHOLE GENOME ANALYSIS	US	15381787	12/16/2016	Pending

Assignee: The Trustees of Princeton University

Nanochannel Arrays and preparation and use for the High Throughput Macromolecular Analysis	US	10/484,293 7,670,770	7/25/2002 3/2/2010	Issued
Nanochannel Arrays and preparation and use for the High Throughput Macromolecular Analysis	US	14/081,322	11/14/13	Pending
Nanochannel Arrays and preparation and use for the High Throughput Macromolecular Analysis	US	14/223,589 US2014/0206555	3/24/2014 7/24/14	Pending
Nanochannel Arrays and preparation and use for the High Throughput Macromolecular Analysis	US	12/261,406 2010/0029508 US8,652,828	10/30/2008 2/4/2010 2/18/2014	Issued
Nanochannel Arrays and preparation and use for the High Throughput Macromolecular Analysis	WO	PCT/US02/23610 WO03/010289	7/25/2002 2/6/2003	Converted
Nanochannel Arrays and preparation and use for the High Throughput	CA	2,454,570	7/25/02	Pending

Macromolecular Analysis				
Nanochannel Arrays and preparation and use for the High Throughput Macromolecular Analysis	EP	EP2002773158.7 EP1417474	7/25/02	Pending
Nanochannel Arrays and preparation and use for the High Throughput Macromolecular Analysis	HK	410897.1	7/25/02	Pending
Nanochannel Arrays and preparation and use for the High Throughput Macromolecular Analysis	IL	159865 IL.159865	1/14/2004 1/04/2014	Granted
Nanochannel Arrays and preparation and use for the High Throughput Macromolecular Analysis	IL	204817 IL.204817	3/28/2010 12/25/2012	Granted
Nanochannel Arrays and preparation and use for the High Throughput Macromolecular Analysis	IL	IL.229805	12/5/13	Pending
Nanochannel Arrays and preparation and use for the High Throughput Macromolecular Analysis	JP	2008225406 JP5175148	7/25/02	Granted
Nanochannel Arrays and their preparation and use for the High Throughput Macromolecular Analysis	JP	2012-222956 JP5236110	4/5/13 10/4/2012	Granted
Nanochannel Arrays and their preparation and use for the High Throughput Macromolecular Analysis	SG	200400310.9 SG102299	7/25/2002 4/28/06	Granted
Nanochannel Arrays and their preparation and use for the High Throughput Macromolecular Analysis	SG	200600539.1 SG169225	7/25/2002 7/15/2011	Granted
Nanochannel Arrays and their preparation and use for the High Throughput Macromolecular Analysis	SG	201103739-7	7/25/02	Pending
Gradient Structures Interfacing Microfluidics and Nanofluidics, Methods of Fabrication and Uses	US	10/414,620 US7,217,562	4/16/2003 5/15/2007	Issued
Gradient Structures Interfacing Microfluidics and Nanofluidics, Methods of Fabrication and Uses	US	11/536,178 US8,333,934	9/28/2006 12/18/12	Issued
Gradient Structures Interfacing Microfluidics and Nanofluidics, Methods of Fabrication and Uses	US	13/675,685 US20140030811	11/13/2012 1/30/14	Pending

Gradient Structures Interfacing Microfluidics and Nanofluidics, Methods of Fabrication and Uses	WO	PCT/US03/11721 WO/2003/106693	4/16/2003 12/24/2003	Converted
Gradient Structures Interfacing Microfluidics and Nanofluidics, Methods of Fabrication and Uses	CA	2,482,566 CA2,482,566	4/16/03 7/20/2010	Granted
Gradient Structures Interfacing Microfluidics and Nanofluidics, Methods of Fabrication and Uses	CA	CA2702194 CA2,702,149	4/16/2003 4/15/2014	Granted
Gradient Structures Interfacing Microfluidics and Nanofluidics, Methods of Fabrication and Uses	EP	2003751748.9 EP03751748	4/16/2003 9/14/2005	Pending
Gradient Structures Interfacing Microfluidics and Nanofluidics, Methods of Fabrication and Uses	EP	2012158025.2 EP2484751	4/16/2003 8/8/12	Pending
Gradient Structures Interfacing Microfluidics and Nanofluidics, Methods of Fabrication and Uses	HK	HK13100728.4 HK1173466A	xxxxx 5/16/2013	Pending
Gradient Structures Interfacing Microfluidics and Nanofluidics, Methods of Fabrication and Uses	IL	164602 IL164602	4/16/2003 3/10/12	Granted
Gradient Structures Interfacing Microfluidics and Nanofluidics, Methods of Fabrication and Uses	IL	214684	11/17/13	Allowed
Gradient Structures Interfacing Microfluidics and Nanofluidics, Methods of Fabrication and Uses	JP	2004-513506 JP4799861	4/16/2003 8/12/11	Granted
Gradient Structures Interfacing Microfluidics and Nanofluidics, Methods of Fabrication and Uses	SG	2004-05974.7 SG107337	4/16/2003 1/30/06	Granted
Optically characterizing	US	09/373,822 US6,790,671	8/13/99 9/14/04	Granted