

TRADEMARK ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

ETAS ID: TM487695

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|------------------------------|--|
| SUBMISSION TYPE: | RESUBMISSION |
| NATURE OF CONVEYANCE: | Reassignment and Release of Security Interest at Reel 6269, Frame 0378 |
| RESUBMIT DOCUMENT ID: | 900456910 |

CONVEYING PARTY DATA

| Name | Formerly | Execution Date | Entity Type |
|-----------------------|----------|----------------|----------------------|
| Western Alliance Bank | | 06/29/2018 | Corporation: ARIZONA |

RECEIVING PARTY DATA

| | |
|------------------------|-------------------------------|
| Name: | Bionano Genomics, Inc. |
| Street Address: | 9640 Towne Center Drive, #100 |
| City: | San Diego |
| State/Country: | CALIFORNIA |
| Postal Code: | 92121 |
| Entity Type: | Corporation: DELAWARE |

PROPERTY NUMBERS Total: 12

| Property Type | Number | Word Mark |
|----------------------|----------|------------------|
| Serial Number: | 87314787 | SAPHYR CHIP |
| Serial Number: | 87314801 | SAPHYR |
| Serial Number: | 87375426 | BIONANO ACCESS |
| Registration Number: | 5076021 | BIONANO GENOMICS |
| Registration Number: | 5045903 | BIONANO GENOMICS |
| Registration Number: | 4708378 | IRYSSOLVE |
| Registration Number: | 4646747 | BIONANO GENOMICS |
| Registration Number: | 4502412 | IRYSPREP |
| Registration Number: | 4502411 | IRYSCHIP |
| Registration Number: | 4452118 | IRYSVIEW |
| Registration Number: | 4518478 | BIONANO GENOMICS |
| Registration Number: | 4544066 | IRYS |

CORRESPONDENCE DATA

Fax Number: 7036106200

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: 7036106100

Email: BoxIP@hoganlovells.com

Correspondent Name: Valerie Brennan of Hogan Lovells US LLP
Address Line 1: 7930 Jones Branch Drive, 9th Floor
Address Line 2: Attn: Box Intellectual Property
Address Line 4: McLean, VIRGINIA 22102-3302

ATTORNEY DOCKET NUMBER: 036639.000081

NAME OF SUBMITTER: Valerie Brennan

SIGNATURE: /vb/

DATE SIGNED: 08/28/2018

Total Attachments: 13

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TRADEMARK ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

ETAS ID: TM480436

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|---|---|-----------------------|----------------------|
| SUBMISSION TYPE: | NEW ASSIGNMENT | | |
| NATURE OF CONVEYANCE: | Reassignment and Release of Security Interest | | |
| CONVEYING PARTY DATA | | | |
| Name | Formerly | Execution Date | Entity Type |
| Western Alliance Bank | | 06/29/2018 | Corporation: ARIZONA |
| RECEIVING PARTY DATA | | | |
| Name: | Bionano Genomics, Inc. | | |
| Street Address: | 9640 Towne Center Drive, #100 | | |
| City: | San Diego | | |
| State/Country: | CALIFORNIA | | |
| Postal Code: | 92121 | | |
| Entity Type: | Corporation: DELAWARE | | |
| PROPERTY NUMBERS Total: 12 | | | |
| Property Type | Number | Word Mark | |
| Serial Number: | 87314787 | SAPHYR CHIP | |
| Serial Number: | 87314801 | SAPHYR | |
| Serial Number: | 87375426 | BIONANO ACCESS | |
| Registration Number: | 5076021 | BIONANO GENOMICS | |
| Registration Number: | 5045903 | BIONANO GENOMICS | |
| Registration Number: | 4708378 | IRYSSOLVE | |
| Registration Number: | 4646747 | BIONANO GENOMICS | |
| Registration Number: | 4502412 | IRYSPREP | |
| Registration Number: | 4502411 | IRYSCHIP | |
| Registration Number: | 4452118 | IRYSVIEW | |
| Registration Number: | 4518478 | BIONANO GENOMICS | |
| Registration Number: | 4544066 | IRYS | |
| CORRESPONDENCE DATA | | | |
| Fax Number: | 7036106200 | | |
| <i>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.</i> | | | |
| Phone: | 7036106100 | | |
| Email: | BoxIP@hoganlovells.com | | |
| Correspondent Name: | Valerie Brennan of Hogan Lovells US LLP | | |
| Address Line 1: | 7930 Jones Branch Drive, 9th Floor | | |

TRADEMARK

REEL: 006437 FRAME: 0660

CH \$315.00 87314787

REASSIGNMENT AND RELEASE OF SECURITY INTEREST

This Reassignment and Release of Security Interest is executed as of June 29, 2018 by WESTERN ALLIANCE BANK, an Arizona corporation ("Assignor") for the benefit of BIONANO GENOMICS, INC., a Delaware corporation ("Assignee"), having its principal business address located at 9640 Towne Centre Drive, #100, San Diego, California 92121.

RECITALS

A. WHEREAS, Assignee assigned certain interests in the intellectual property described on Exhibit B and Exhibit C (together, the "Intellectual Property") to the Assignor under certain Intellectual Property Security Agreement dated as of February 9, 2018, and recorded with the U.S. Patent and Trademark Office; and

B. WHEREAS, Assignor wishes to release and reassign all interest that Assignor may have in the Intellectual Property.

AGREEMENT

Now, therefore, Assignor agrees that it releases its security interest in the Intellectual Property and reassigns to Assignee, without warranty or recourse, all interest of Assignor in the Intellectual Property.

Address:

55 Almaden Boulevard, Suite 100
San Jose, California 95113

ASSIGNOR:

WESTERN ALLIANCE BANK

By: _____

Title: _____

EXHIBIT A
COPYRIGHTS

Please Check if No Copyrights Exist

| <u>Type of Work:</u> | <u>Title:</u> | <u>International Standard Serial Number (ISSN):</u> | <u>Registration Number:</u> | <u>Filing Date:</u> | <u>Preregistered?</u> |
|----------------------|---------------|---|---------------------------------|-------------------------|-----------------------|
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Exhibit B
TRADEMARKS

Please Check if No Trademarks Exist

| <u>Mark / Title:</u> | <u>U.S. Serial No.:</u> | <u>U.S. Registration No.:</u> | <u>USPTO Reference No.:</u> | <u>Filing Date:</u> |
|----------------------|-------------------------|-------------------------------|-----------------------------|---------------------|
| SAPHYR CHIP | 87314787 | N/A | | 1/26/17 |
| SAPHYR | 87314801 | N/A | | 1/26/17 |
| BIONANO ACCESS | 87375426 | N/A | | 3/17/17 |
| BIONANO GENOMICS | 86361387 | 5076021 | | 8/8/14 |
| BIONANO GENOMICS | 86050497 | 5045903 | | 8/28/13 |
| IRYSSOLVE | 86400672 | 4708378 | | 9/19/14 |
| BIONANO GENOMICS | 86975215 | 4646747 | | 8/28/13 |
| IRYSPREP | 85677075 | 4502412 | | 7/13/12 |
| IRYSCHIP | 85677063 | 4502411 | | 7/13/12 |
| IRYSVIEW | 85677059 | 4452118 | | 7/13/12 |
| BIONANO GENOMICS | 85677046 | 4518478 | | 7/13/12 |
| IRYS | 85677024 | 4544066 | | 7/13/12 |
| | | | | |

EXHIBIT C

PATENTS

Please Check if No Patents Exist

| <u>Title:</u> | <u>Patent Number:</u> | <u>Application Serial Number:</u> | <u>Issued or Published</u> | <u>Issue Date:</u> |
|---|-----------------------|-----------------------------------|----------------------------|--------------------|
| Nanonozzle device arrays: their preparation and use for macromolecular analysis | US9061901 | 12/374,141 | Issued | 6/23/15 |
| Nanonozzle device arrays: their preparation and use for macromolecular analysis | | 14/712816 US20150323518 | Allowed | |
| Nanonozzle device arrays: their preparation and use for macromolecular analysis | | US15/801081 | Pending | |
| Nanonozzle device arrays: their preparation and use for macromolecular analysis | | PCT/US07/16408 WO/2008/079169 | Published | |
| Nanonozzle device arrays: their preparation and use for macromolecular analysis | AU2007338862 | 2007338862 | Issued | 5/24/14 |
| Nanonozzle device arrays: their preparation and use for macromolecular analysis | CA2658122 | CA2658122 | Issued | 9/2/14 |
| Nanonozzle device arrays: their preparation and use for macromolecular analysis | ZL201310054745.1 | CN103203256 | Issued | 2/20/13 |
| Nanonozzle device arrays: their preparation and use for macromolecular analysis | | EP2007872156 EP2049262 | Published | |
| Nanonozzle device arrays: their preparation and use for macromolecular analysis | JP6030599 | 2014-089510 | Issued | 10/28/16 |
| Nanonozzle device arrays: their preparation and use for macromolecular analysis | SG173,398 | 2011-05244-6 | Issued | 7/19/07 |
| Methods of macromolecular analysis using nanochannel arrays | US8722327 | 12/057,987 | Issued | 5/13/14 |

| <u>Title:</u> | <u>Patent Number:</u> | <u>Application Serial Number:</u> | <u>Issued or Published</u> | <u>Issue Date:</u> |
|--|------------------------------|--|-----------------------------------|---------------------------|
| Methods of macromolecular analysis using nanochannel arrays | US9310376 | 14/195,474 | Issued | 4/12/16 |
| Methods of macromolecular analysis using nanochannel arrays | | 15/062622 US20160289756 | Published | |
| Methods of macromolecular analysis using nanochannel arrays | | PCT/US2008/058671 WO/2008/121828 | Published | |
| Methods of macromolecular analysis using nanochannel arrays | AU2008232616 | AU2008232616 | Issued | 11/20/14 |
| Methods of macromolecular analysis using nanochannel arrays | CA2682275 | CA2,682,275 | Issued | 5/9/17 |
| Methods of macromolecular analysis using nanochannel arrays | | CA2964611 | Pending | |
| Methods of macromolecular analysis using nanochannel arrays | ZL2008800017550.70 | CN200880017550.7 | Issued | 6/5/13 |
| Methods of macromolecular analysis using nanochannel arrays | | CN201310189106.6 | Pending | |
| Methods of macromolecular analysis using nanochannel arrays | EP2136922 | EP2008-744609.2 | Issued | 12/5/12 |
| Methods of macromolecular analysis using nanochannel arrays | | EP2013150068.8 EP2604344 | Published | |
| Methods of macromolecular analysis using nanochannel arrays | | HK10104929.6 | Pending | |
| Methods of macromolecular analysis using nanochannel arrays | JP5491378 | JP2010-501259 | Issued | 3/7/14 |
| Methods of macromolecular analysis using nanochannel arrays | JP5860574 | JP2013-258107 | Issued | 12/25/15 |
| Methods of macromolecular analysis using nanochannel arrays | KR10-1522741 | KR10-2009-7022447 | Issued | 5/18/15 |
| Methods and devices for single molecule whole genomic analysis | US8,628,919 | 13/001,697 | Issued | 1/14/14 |
| Methods and devices for single molecule whole genomic analysis | US9536041 | 13/765,353 | Issued | 1/3/2017 |
| Methods and devices for single molecule whole genomic analysis | | 15/381,787 US20170226567 | Published | |

| <u>Title:</u> | <u>Patent Number:</u> | <u>Application Serial Number:</u> | <u>Issued or Published</u> | <u>Issue Date:</u> |
|--|------------------------------|--|-----------------------------------|---------------------------|
| Methods and devices for single molecule whole genomic analysis | | PCT/US2009/049244 WO/2010/002883 | Published | |
| Methods and devices for single molecule whole genomic analysis | AU2009267086 | AU2009267086 | Issued | 4/12/16 |
| Methods and devices for single molecule whole genomic analysis | | AU201602242 | Published | |
| Methods and devices for single molecule whole genomic analysis | | CA2729159 | Published | |
| Methods and devices for single molecule whole genomic analysis | | CN2009-80125335.30 | Pending | |
| Methods and devices for single molecule whole genomic analysis | | EP20090774334 EP2318547 | Published | |
| Methods and devices for single molecule whole genomic analysis | | EP13179160.0 EP2664677 | Published | |
| Methods and devices for single molecule whole genomic analysis | | CN2012-105208.3 | Pending | |
| Methods and devices for single molecule whole genomic analysis | JP5730762 | JP2011-516813 | Issued | 4/17/2015 |
| Methods and devices for single molecule whole genomic analysis | | 2015078505 JP2015163073 | Allowed | |
| Integrated analysis devices, fabrication methods and analysis techniques | US9533879 | 12/996,410 | Issued | 1/3/17 |
| Nanofluidic Chips and Nanochannel Patterns | | 15/385302 US20170313580 | Published | |
| Integrated nanofluidic analysis devices, fabrication methods and analysis techniques | | PCT/US2009/046427 WO/2009/149362 | Published | |
| Integrated nanofluidic analysis devices, fabrication methods and analysis techniques | AU2009256064 | AU2009256064 | Issued | 8/13/15 |
| Integrated nanofluidic analysis devices, fabrication methods and analysis techniques | | AU2015205826 | Allowed | |
| Integrated nanofluidic analysis devices, fabrication methods and analysis techniques | | CA2727095 | Pending | |

| <u>Title:</u> | <u>Patent Number:</u> | <u>Application Serial Number:</u> | <u>Issued or Published</u> | <u>Issue Date:</u> |
|--|------------------------------|--|-----------------------------------|---------------------------|
| Integrated nanofluidic analysis devices, fabrication methods and analysis techniques | ZL200980154567.1 | 2009-80130482 | Issued | 11/26/14 |
| Integrated nanofluidic analysis devices, fabrication methods and analysis techniques | | CN201410462892.7 CN104359874 | Published | |
| Integrated nanofluidic analysis devices, fabrication methods and analysis techniques | | EP2009759520 | Pending | |
| Integrated nanofluidic analysis devices, fabrication methods and analysis techniques | | HK11109208.6 | Pending | |
| Integrated nanofluidic analysis devices, fabrication methods and analysis techniques | | HK15107980 | Pending | |
| Integrated nanofluidic analysis devices, fabrication methods and analysis techniques | SG2010-08920-9 | SG2010-08920-9 | Issued | 7/31/13 |
| Integrated nanofluidic analysis devices, fabrication methods and analysis techniques | | KR10-2016-7001826 | Allowed | 1/21/16 |
| Polynucleotide mapping and sequencing | US9181578 | 13/129634 2011/0306504 | Issued | 11/10/15 |
| Polynucleotide mapping and sequencing | | 14/877818 US20160097092 | Published | |
| Polynucleotide mapping and sequencing | | PCT/US2009/064996 WO/2010/059731 | Published | |
| Polynucleotide mapping and sequencing | AU2009316628 | AU2009316628 | Issued | 6/16/16 |
| Polynucleotide mapping and sequencing | | CA2744064 | Published | |
| Polynucleotide mapping and sequencing | ZL20098015456.7 | CN2009-80154567.10 | Issued | 9/24/14 |
| Polynucleotide mapping and sequencing | | CN201610248998.6 CN105930689 | Published | |
| Polynucleotide mapping and sequencing | EP2370594 | EP2009-760398.9 | Granted | 1/8/14 |
| Polynucleotide mapping and sequencing | EP2370594 Registered in GB | EP2009-760398.9 | Granted | 1/8/14 |
| Polynucleotide mapping and sequencing | EP2370594 Registered in FR | EP2009-760398.9 | Granted | 1/8/14 |
| Polynucleotide mapping and sequencing | EP2370594 Registered in DE | EP2009-760398.9 | Granted | 1/8/14 |
| Polynucleotide mapping and sequencing | HK1166107 | HK12105207.4 | Granted | |

| <u>Title:</u> | <u>Patent Number:</u> | <u>Application Serial Number:</u> | <u>Issued or Published</u> | <u>Issue Date:</u> |
|---|------------------------------|--|-----------------------------------|---------------------------|
| Polynucleotide mapping and sequencing | | 15108141.4 HK1207404A | Published | |
| Polynucleotide mapping and sequencing | JP5846703 | JP2011537585 | Issued | 1/20/16 |
| Polynucleotide mapping and sequencing | SG171,325 | 2011-03550-8 | Issued | 11/29/13 |
| Nanoanalyzer Systems and Methods | AU2011316989 | AU2011316989 | Issued | 5/2/13 |
| Systems and methods for assessing biomolecule characteristics | ZL201180060380.2 | CN103443290A CN201180060380.2 | Issued | 6/8/16 |
| Systems and methods for assessing biomolecule characteristics | | CN20160365650.5 CN106048000A | Published | |
| Systems and methods for assessing biomolecule characteristics | HK1192287 | HK14105511.3 | Issued | 9/1/17 |
| Systems and methods for assessing biomolecule characteristics | | HK(new) | Pending | |
| Systems and methods for assessing biomolecule characteristics | | SG201302736-2 | Pending | |
| Nanochannel arrays and near-field illumination devices for polymer analysis and related methods | US9725315 | 13/498846 2012/0244635 | Issued | 8/8/2017 |
| Nanochannel arrays and near-field illumination devices for polymer analysis and related methods | | PCT/US2010/050362 WO/2011/038327 | Published | |
| Nanochannel arrays and near-field illumination devices for polymer analysis and related methods | | HK13102315.9 HK1175215A | Published | |
| Nanochannel arrays and near-field illumination devices for polymer analysis and related methods | ZL201080043518.3 | CN2010-80043518.3 | Issued | 9/5/17 |
| Methods for single-molecule analysis | | 2015/0368706 | Published | |
| Methods for single-molecule analysis | | PCT/US2014/014501 WO2014/123822 | Published | |
| Methods for single-molecule analysis | | AU2014215586 | Published | |
| Methods for single-molecule analysis | | CA2900054 | Published | |

| <u>Title:</u> | <u>Patent Number:</u> | <u>Application Serial Number:</u> | <u>Issued or Published</u> | <u>Issue Date:</u> |
|---|-----------------------|------------------------------------|----------------------------|--------------------|
| Methods for single-molecule analysis | | 201480007595.1 CN105143462 | Published | |
| Methods for single-molecule analysis | | HK16105786.9 | Pending | |
| Methods for single-molecule analysis | | EP14748636.9 | Pending | |
| Methods for single-molecule analysis | | JP2015-556985 | Pending | |
| Characterization of Molecules in Nanofluidics | US9809855 | 14/768422 US2016/0046992 | Issued | 11/7/17 |
| Characterization of Molecules in Nanofluidics | | US15/795847 | Pending | 10/24/17 |
| Characterization of Molecules in Nanofluidics | | AU2014219001 | Pending | 2/19/14 |
| Characterization of Molecules in Nanofluidics | | CA2901460 | Pending | 2/19/14 |
| Characterization of Molecules in Nanofluidics | | EP14753475.4 | Pending | 2/19/14 |
| Characterization of Molecules in Nanofluidics | | CN105229168 | Pending | 2/19/14 |
| Characterization of Molecules in Nanofluidics | | HK16107465.3 | Pending | 6/27/16 |
| Characterization of Molecules in Nanofluidics | | JP2016510590 | Pending | 2/19/14 |
| System for Nanoanalysis | RU142580 | RU2013140977 | Issued | 5/27/14 |
| Analysis of Polynucleotides | | 14/897213 US20160201147 | Published | |
| Analysis of Polynucleotides | | PCT/US14/41568 WO2014/200926 | Published | |
| Analysis of Polynucleotides | | CN201480044219.X | Pending | |
| Analysis of Polynucleotides | | HK16113120.8 HK1225072A | Published | |
| Analysis of Polynucleotides | | CN2016-519575 | Pending | |
| Processing of Polynucleotides | | 15/123457 US20170073666 | Published | |
| Processing of Polynucleotides | | PCT/US2015/019027 WO2015/134785 | Published | |
| Processing of Polynucleotides | | CN201580012473.6 | Pending | |
| Processing of Polynucleotides | | EP15710388.8 | Pending | |
| Improved Methods of Determining Nucleic Acid Structural Information | | PCT/US2015/016194 WO2015126840 | Published | |
| Improved Methods of Determining Nucleic Acid Structural Information | | US15/11769 | Pending | 8/9/16 |
| Improved Methods of Determining Nucleic Acid Structural Information | | CN201580009351.1 | Pending | |

| <u>Title:</u> | <u>Patent Number:</u> | <u>Application Serial Number:</u> | <u>Issued or Published</u> | <u>Issue Date:</u> |
|---|------------------------------------|--|-----------------------------------|---------------------------|
| Improved Methods of Determining Nucleic Acid Structural Information | | HK(new) | Pending | |
| Photocleavage method and apparatus to clean fluidic devices | | PCT/US2015/047688 WO2016036647 | Pending | |
| Photocleavage method and apparatus to clean fluidic devices | | 15/507,416 US20170282181 | Published | 2/28/17 |
| Photocleavage method and apparatus to clean fluidic devices | | 15763711.7 | Pending | |
| Photocleavage method and apparatus to clean fluidic devices | | CN201580055371.2 CN107073472 | Published | |
| Photocleavage method and apparatus to clean fluidic devices | New | HK (New) | Pending | New |
| Photocleavage method and apparatus to clean fluidic devices | | SG11201702707Q | Pending | |
| Isolation of Megabase DNA from plant and animal tissue | | 14/802,659 US20160017316 | Published | |
| Reduction of bias in genomic coverage measurement | | PCT/US2015/017356 WO2015130696 | Published | |
| Reduction of bias in genomic coverage measurement | | 15/117,689 US20160355873 | Published | |
| Reduction of bias in genomic coverage measurement | | EP15708652.1-1403 | Pending | |
| Reduction of bias in genomic coverage measurement | | CN201580016272.3 | Pending | |
| Processing of Polynucleotides | 15/123457 US20170073666 | 15/123457 US20170073666 | Published | |
| Processing of Polynucleotides | PCT/US2015/019027 WO2015/134785 | PCT/US2015/019027 WO2015/134785 | Published | |
| Processing of Polynucleotides | CN201580012473.6 | CN201580012473.6 | Pending | |
| Processing of Polynucleotides | EP15710388.8 | EP15710388.8 | Pending | |
| Improved Methods of Determining Nucleic Acid Structural Information | | PCT/US2015/016194 WO2015126840 | Published | |
| Improved Methods of Determining Nucleic Acid Structural Information | | US15/11769 | Pending | |
| Embedded Noble Metal Electrodes in Microfluidics | | 14/928,596 | Pending | |

| <u>Title:</u> | <u>Patent Number:</u> | <u>Application Serial Number:</u> | <u>Issued or Published</u> | <u>Issue Date:</u> |
|--|------------------------------|--|-----------------------------------|---------------------------|
| Embedded Noble Metal Electrodes in Microfluidics | | 14/952,161 | Allowed | |