

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT7824480

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	SECURITY INTEREST	
CONVEYING PARTY DATA		
	Name	Execution Date
	BIOLOGICAL DYNAMICS, INC.	12/30/2022
RECEIVING PARTY DATA		
Name:	PARIAN ZEUS LP, IN ITS CAPACITY AS COLLATERAL AGENT ON BEHALF OF THE SECURED PARTIES	
Street Address:	P.O. BOX 2613	
City:	TELLURIDE	
State/Country:	COLORADO	
Postal Code:	81435	
PROPERTY NUMBERS Total: 51		
Property Type	Number	
Patent Number:	8932447	
Patent Number:	8603791	
Patent Number:	9206416	
Patent Number:	8815554	
Patent Number:	8969059	
Patent Number:	8877470	
Patent Number:	8815555	
Patent Number:	8871481	
Patent Number:	9005941	
Patent Number:	9034578	
Patent Number:	9034579	
Patent Number:	8932815	
Patent Number:	9499812	
Patent Number:	9827565	
Patent Number:	10006083	
Patent Number:	9387489	
Patent Number:	9682385	
Patent Number:	10232369	
Application Number:	61042228	
Application Number:	61624897	

PATENT

Property Type	Number
Application Number:	61624881
Application Number:	61672949
Application Number:	61977006
Application Number:	61977249
Application Number:	62156784
Application Number:	62313120
Application Number:	16355462
Application Number:	62503174
Application Number:	17033427
Application Number:	62651659
Application Number:	62607873
Application Number:	16955707
Application Number:	62607869
Application Number:	16955732
Application Number:	63050228
Application Number:	63136572
Application Number:	63190719
Application Number:	63191886
Application Number:	17045146
Application Number:	15974591
PCT Number:	US2013051158
PCT Number:	US2013036845
PCT Number:	US2015024624
PCT Number:	US2016030821
PCT Number:	US2017024149
PCT Number:	US2018031652
PCT Number:	US2019025242
PCT Number:	US2018066602
PCT Number:	US2018066605
PCT Number:	US2021041177
PCT Number:	US2022012149

CORRESPONDENCE DATA

Fax Number: (212)480-8421

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: 2125741200

Email: trademarks@sewkis.com

Correspondent Name: BETH H. ALTER/SEWARD & KISSEL LLP

Address Line 1: ONE BATTERY PARK PLAZA

Address Line 4: NEW YORK, NEW YORK 10004	
NAME OF SUBMITTER:	BETH H. ALTER
SIGNATURE:	/Beth H. Alter/
DATE SIGNED:	03/02/2023
Total Attachments: 6 source=Patent Security Agreement (Biological Dynamics)#page1.tif source=Patent Security Agreement (Biological Dynamics)#page2.tif source=Patent Security Agreement (Biological Dynamics)#page3.tif source=Patent Security Agreement (Biological Dynamics)#page4.tif source=Patent Security Agreement (Biological Dynamics)#page5.tif source=Patent Security Agreement (Biological Dynamics)#page6.tif	

GRANT OF SECURITY INTEREST IN UNITED STATES PATENTS

This **GRANT OF SECURITY INTEREST IN UNITED STATES PATENTS**, dated as of December 30, 2022 (as it may be amended, restated, supplemented or otherwise modified from time to time, this “*Agreement*”), is made by among **BIOLOGICAL DYNAMICS, INC.**, a Delaware corporation (“*Grantor*”), and Parian Zeus LP, a Delaware limited partnership, in its capacity as Collateral Agent (“*Collateral Agent*”) on behalf of the Secured Parties (as defined below).

WHEREAS, Grantor is a party to a Security Agreement dated as of December 30, 2022 (the “*Security Agreement*”) by and among Grantor, Collateral Agent, and the Secured Parties that are party thereto; and

WHEREAS, Grantor owns the patents listed on Schedule A attached hereto (the “**Patents**”), which Patents are pending or registered with the United States Patent and Trademark Office.

NOW, THEREFORE, in consideration of the foregoing and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Grantor hereby agrees with the Collateral Agent as follows:

SECTION 1. Defined Terms

Unless otherwise defined herein, terms defined in the Security Agreement and used herein have the meaning given to them in the Security Agreement.

SECTION 2. The Security Interest

- (a) This Agreement is made to secure the satisfactory performance and payment of (i) all the Secured Obligations and (ii) all of the obligations and liabilities of Grantor under the Security Agreement. Upon payment in full of all Secured Obligations, the Collateral Agent shall promptly, upon such satisfaction, execute, acknowledge and deliver to Grantor all reasonably requested instruments in writing releasing the security interest in the patents acquired under the Security Agreement and this Agreement.
- (b) Grantor hereby grants to the Collateral Agent, for the benefit of the Secured Parties, a security interest in and continuing lien on all of Grantor’s right, title and interest in, to and under all of the Patents and all of Grantor’s right, title and interest in, to and under all other United States and foreign patents and certificates of invention, or similar industrial property rights, in each case whether now owned or from time to time after the date hereof acquired, developed or created by Grantor, and applications for any of the foregoing, including, but not limited to: (i) each patent and patent application listed or required to be listed in Schedule A attached hereto, (ii) all reissues, divisions, continuations, continuations-in-part, extensions, renewals, and reexaminations thereof, (iii) all patentable inventions and improvements thereto, (iv) the right to sue or otherwise recover for any past, present and future infringement or other violation thereof, (v) all Proceeds of the foregoing, including, without limitation, license fees, royalties, income, payments, claims, damages, and proceeds of suit now or hereafter due and/or payable with respect thereto, and (vi) all other rights of any kind accruing thereunder or pertaining thereto throughout the world (collectively, the “**Patent Collateral**”).

SECTION 3. Security Agreement

The security interest granted pursuant to this Agreement is granted in conjunction with the security interest granted to the Collateral Agent for the Secured Parties pursuant to the Security Agreement, and Grantor hereby acknowledges and affirms that the rights and remedies of the Collateral Agent with respect to the security interest in the Patent Collateral made and granted hereby are more fully set forth in the Security Agreement, the terms and provisions of which are incorporated by reference herein as if fully set forth herein. In the event that any provision of this Agreement is deemed to conflict with the Security Agreement, the provisions of the Security Agreement shall control.

SECTION 4. Governing Law

THIS AGREEMENT AND THE RIGHTS AND OBLIGATIONS OF THE PARTIES HEREUNDER AND ALL CLAIMS AND CONTROVERSIES ARISING OUT OF THE SUBJECT MATTER HEREOF WHETHER SOUNDING IN CONTRACT LAW, TORT LAW OR OTHERWISE SHALL BE GOVERNED BY, AND SHALL BE CONSTRUED AND ENFORCED IN ACCORDANCE WITH, THE LAWS OF THE STATE OF NEW YORK, WITHOUT REGARD TO CONFLICTS OF LAW PROVISIONS THAT WOULD RESULT IN THE APPLICATION OF ANY OTHER LAW (OTHER THAN ANY MANDATORY PROVISIONS OF LAW RELATING TO THE LAW GOVERNING PERFECTION AND THE EFFECT OF PERFECTION OF THE SECURITY INTEREST).

SECTION 5. Counterparts

This Agreement may be executed in one or more counterparts and by different parties hereto in separate counterparts, each of which when so executed and delivered shall be deemed an original, but all such counterparts together shall constitute but one and the same instrument.

[Remainder of page intentionally left blank]

IN WITNESS WHEREOF, each of the parties hereto has caused this Agreement to be executed and delivered by its duly authorized officer on the date first set forth above.

ADDRESS OF GRANTOR:

BIOLOGICAL DYNAMICS, INC.
9381 Judicial Dr., Suite 120
San Diego, CA 92121
Attn: Paul R. Billings M.D., Ph.D.

GRANTOR:

BIOLOGICAL DYNAMICS, INC.

By: Paul R. Billings

Printed Name: Paul R. Billings M.D., Ph.D.

Title: Chief Executive Officer

**JURISDICTION OF ORGANIZATION OF
GRANTOR: DELAWARE**

COLLATERAL AGENT:

PARIAN ZEUS LP, as Collateral Agent of behalf
of the Secured Parties

by Parian GP LLC, its General Partner

By: Zach Miller

Printed Name: Zach Miller

Title: Managing Partner

SCHEDULE A

BIOLOGICAL DYNAMICS **IP Patent Schedule**

Title	Cty.	Filing Date	Patent/App. No.	Status	Issue Date
Ex-Vivo Multi-Dimensional System for the Separation of Cells, Vesicles, Nanoparticles and BioMarkers	US	10/25/2013	8,932,447/ 14/063,884	GRANTED	1/13/2015
Ex-Vivo Multi-Dimensional System for the Separation of Cells, Vesicles, Nanoparticles and BioMarkers	US	04/03/2008	61/042,228 (Provisional)	Expired	n/a
Manipulation of Microparticles in Low Field in Dielectrophoretic Regions	PCT	1/18/2013	PCT/US2013/051158	Expired	n/a
Nucleic Acid Sample Preparation	US	04/16/2012	61/624,897 (Provisional)	Expired	n/a
Nucleic Acid Sample Preparation	US	04/16/2012	61/624,881 (Provisional)	Expired	n/a
Nucleic Acid Sample Preparation	US	04/16/2013	8,603,791/ 13/864,179	GRANTED	12/10/2013
Nucleic Acid Sample Preparation	US	10/30/2013	9,206,416/ 14/067,841	GRANTED	12/08/2015
Nucleic Acid Sample Preparation	US	2/28/2014	8,815,554/ 14/194,566	GRANTED	8/26/2014
Nucleic Acid Sample Preparation	US	2/28/2014	8,969,059/ 14/194,572	GRANTED	3/3/2015
Nucleic Acid Sample Preparation	US	3/7/2014	8,877,470/ 14/201,715	GRANTED	11/4/2014
Nucleic Acid Sample Preparation	US	3/7/2014	8,815,555/ 14/201,726	GRANTED	8/26/2014
Nucleic Acid Sample Preparation	US	5/6/2014	8,871,481/ 14/271,337	GRANTED	10/28/2014
Nucleic Acid Sample Preparation	US	09/04/2014	9,005,941/ 14/477,800	GRANTED	4/14/2015
Nucleic Acid Sample Preparation	US	10/7/2014	9,034,578/ 14/509,022	GRANTED	5/19/2015
Nucleic Acid Sample Preparation	US	10/10/2014	9,034,579/ 14/512,356	GRANTED	5/19/2015
Nucleic Acid Sample Preparation	US	06/20/2014	8,932,815/ 14/311,037	GRANTED	1/13/2015
Nucleic Acid Sample Preparation	US	10/28/2015	9,499,812/ 14/925,157	GRANTED	11/22/2016
Nucleic Acid Sample Preparation	US	10/13/2016	9,827,565/ 15/293,062	GRANTED	11/28/2017
Nucleic Acid Sample Preparation	US	12/20/2016	10,006,083/ 15/320,730	GRANTED	6/26/2018
Nucleic Acid Sample Preparation	PCT	04/16/2013	PCT/US2013/036845	Expired	n/a
Nucleic Acid Sample Preparation	PCT	06/19/2015	PCT/US2015/36789	Expired	n/a
Manipulation of Microparticles in Low US Field Dielectrophoretic Regions	US	07/18/2012	61/672,949 (Provisional)	Expired	n/a
Manipulation of Microparticles in Low Field Dielectrophoretic Regions	PCT	1/18/2013	PCT/US/2013/051158	Expired	n/a
Devices for Separation of Biological Materials	US	4/8/2014	61/977,006 (Provisional)	Expired	n/a

Title	Cty.	Filing Date	Patent/App. No.	Status	Issue Date
Devices for Separation of Biological Materials	US	4/9/2014	61/977,249 (Provisional)	Expired	n/a
Devices for Separation of Biological Materials	PCT	4/7/2015	PCT/US2015/024624	Expired	n/a
Devices for Separation of Biological Materials	US	4/7/2015	9,387,489 14/680,819	GRANTED	7/12/2016
Devices for Separation of Biological Materials	US	06/02/2016	9,682,385 15/171,876	GRANTED	06/20/2017
Methods of Isolating of Nanoparticles and Biomarkers	US	5/4/2015	62/156,784 (Provisional)	Expired	n/a
Particle Based Immunoassay with Alternating Current Electrokinetics	PCT	5/4/2016	US2016/030821	Expired	n/a
Disposable Fluidics Cartridge and Components	US	3/24/2016	62/313,120 (Provisional)	Expired	n/a
Disposable Fluidics Cartridge and Components	PCT	4/24/2017	PCT/US2017/024149	Pending	
Disposable Fluidics Cartridge and Components	US	4/24/2017	10,232,369 15/469,406	GRANTED	3/19/2019
Disposable Fluidics Cartridge and Components	US	4/15/2019	16/355,462	ALLOWED	
Methods and Systems for Analyte Information Processing	US	08/08/2017	62/503,174 (Provisional)	Expired	
Methods and Systems for Analyte Information Processing	US	05/08/2018	19,818,379/ 15/974,591	GRANTED	
Methods and Systems for Analyte Information Processing	US	09/25/2020	17/033,427	Pending	
Methods and Systems for Analyte Information Processing	US	05/08/2018	PCT/US/2018/031652	Expired	
Dielectric Coatings	US	04/02/2018	62/651,659 (Provisional)	Expired	
Dielectric Coatings	PCT	04/01/2019	PCT/US2019/025242	Expired	
Dielectric Coatings	US	10/02/2020	17,045,146	Pending	
Methods and Devices for Detection of Multiple Analytes from a Biological Sample	US	12/19/2017	62/607,873 (Provisional)	Expired	
Methods and Devices for Detection of Multiple Analytes from a Biological Sample	PCT	12/19/2018	PCT/US2018/066602	Expired	
Methods and Devices for Detection of Multiple Analytes from a Biological Sample	US	12/19/2018	16/955,707	Pending	
Methods and Devices for Detecting and Quantifying Cell-Free DNA Fragments	US	12/19/2017	62/607,869 (Provisional)	Expired	
Methods and Devices for Detecting and Quantifying Cell-Free DNA Fragments	PCT	12/19/2018	PCT/US2018/066605	Expired	
Methods and Devices for Detecting and Quantifying Cell-Free DNA Fragments	US	12/19/2018	16/955,732	Pending	
Modification of Metallic Surfaces with Phosphonic Acids	US	07/10/2020	63/050,228 (Provisional)	Expired	
Modification of Metallic Surfaces with Phosphonic Acids	US	07/10/2020	PCT/US2021/041177	Pending	
Methods and Systems for Detection and Discovery of Biomarkers	US	01/12/2021	63/136,572 (Provisional)	Expired	

Title	Cty.	Filing Date	Patent/App. No.	Status	Issue Date
Methods and Systems for Detection and Discovery of Biomarkers	US	01/12/2021	63/190,719 (Provisional)	Expired	
Methods and Systems for Detection and Discovery of Biomarkers	US	01/12/2021	63/191,886 (Provisional)	Expired	
Methods and Systems for Detection and Discovery of Biomarkers	US	01/12/2021	PCT/US2022/012149	Pending	

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