

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT6971324

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST

CONVEYING PARTY DATA

Name	Execution Date
GEMINI BIOPRODUCTS, LLC	10/15/2021
GEMINI BIOPRODUCTS HOLDING, INC.	10/15/2021
ORFLO TECHNOLOGIES, LLC	10/15/2021

RECEIVING PARTY DATA

Name:	BROADOAK FUND V, L.P. , AS AGENT
Street Address:	4800 MONTGOMERY LANE, SUITE 230
City:	BETHESDA
State/Country:	MARYLAND
Postal Code:	20814

PROPERTY NUMBERS Total: 29

Property Type	Number
Patent Number:	8804105
Patent Number:	8329437
Patent Number:	7515268
Patent Number:	8072603
Patent Number:	8735853
Patent Number:	9103760
Patent Number:	9528926
Patent Number:	9945770
Patent Number:	8182635
Patent Number:	8608891
Patent Number:	9452429
Patent Number:	9293311
Patent Number:	9952135
Application Number:	16323401
Patent Number:	7520164
Patent Number:	8171778
Patent Number:	7417418
Patent Number:	7579823

PATENT

Property Type	Number
Application Number:	17093429
Application Number:	16084036
Application Number:	62480305
Application Number:	62619577
Application Number:	62615381
PCT Number:	US2013000145
Application Number:	62613348
Application Number:	62371395
Application Number:	62420394
Application Number:	62584055
Application Number:	62308351

CORRESPONDENCE DATA

Fax Number: (415)693-2222
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
Address Line 1: 3 EMBARCADERO CENTER, 20TH FLOOR
Address Line 4: SAN FRANCISCO, CALIFORNIA 94111

ATTORNEY DOCKET NUMBER:	344711-102
NAME OF SUBMITTER:	C. RHEM
SIGNATURE:	/CR/
DATE SIGNED:	10/15/2021

Total Attachments: 8

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INTELLECTUAL PROPERTY SECURITY AGREEMENT

This Intellectual Property Security Agreement is entered into as of October 15, 2021 by and between BROADOAK FUND V, L.P. ("Agent"), GEMINI BIOPRODUCTS, LLC, a Delaware limited liability company ("Borrower"), GEMINI BIOPRODUCTS HOLDING, INC., a Delaware corporation ("Holdings") and ORFLO TECHNOLOGIES, LLC, a Delaware limited liability company ("Orflo" and, together with Holdings, the "Grantors", together with the Borrower, the "Grantors").

RECITALS

A. Lenders (as defined below) have agreed to make certain advances of money and to extend certain financial accommodations to Borrower (the "Loans") in the amounts and manner set forth in that certain Loan and Security Agreement by and between Agent, BROADOAK FUND V, L.P. and BROADOAK FUND IV, LLC (the "Lenders") and Borrower dated as of October 15, 2021 (as the same may be amended, modified or supplemented from time to time, the "Loan Agreement"; capitalized terms used herein are used as defined in the Loan Agreement). The Lenders are willing to make the Loans to Borrower, but only upon the condition, among others, that Grantors shall grant to Agent a security interest in certain Copyrights, Trademarks, Patents, and mask works to secure the Obligations of Grantors under the Loan Agreement and the Security Agreement (as defined below).

B. Pursuant to the terms of the Loan Agreement, Borrower has granted to Agent a security interest in all of Borrower's right, title and interest, whether presently existing or hereafter acquired, in, to and under all of the Collateral. Pursuant to the terms of that certain Pledge, Security and Guaranty Agreement, dated as of October 15, 2021 (the "Security Agreement"), by and between Agent and Grantors, each Grantor has granted to Agent a security interest in all of such Grantor's right, title and interest, whether presently existing or hereafter acquired, in, to and under all of the Collateral.

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 Loan Documents, each Grantor hereby represents, warrants, covenants and agrees as follows:

AGREEMENT

To secure the Obligations under the Loan Documents, each Grantor grants and pledges to Agent a security interest in all of such Grantor's right, title and interest in, to and under its Intellectual Property (including without limitation those Copyrights, Patents and Trademarks listed on Exhibits A, B and C hereto), and including without limitation all proceeds thereof (such as, by way of example but not by way of limitation, license royalties and proceeds of infringement suits), the right to sue for past, present and future infringements, all rights corresponding thereto throughout the world and all re-issues, divisions continuations, renewals, extensions and continuations-in-part thereof.

This security interest is granted in conjunction with the security interest granted to Agent under the Loan Documents. The rights and remedies of Agent with respect to the security interest granted hereby are in addition to those set forth in the Loan Agreement, the Security Agreement and the other Loan 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 Loan Agreement, the Security Agreement or any of the Loan 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 Loan Agreement, the Security Agreement or any of the other Loan Documents, or now or hereafter existing at law or in equity, shall not preclude the simultaneous or later exercise by any person, of any or all other rights, powers or remedies.

Each Grantor hereby authorizes Agent to file and/or record, in the relevant office(s), including the United States Patent and Trademark Office and the United States Copyright Office, this Intellectual Property Security Agreement and any and all amendments and/or modifications hereto, including to the Exhibits attached hereto from time to time, and other documents, without the signature of such Grantor either in Agent's name or in the name of Agent as agent and attorney-in-fact for such Grantor.

Sections 11 (Choice of Law and Venue; Jury Trial Waiver; Judicial Reference), 12.2 (Indemnification), 12.4 (Severability of Provisions), 12.6 (Amendments in Writing; Waiver; Integration), 12.7 (Counterparts), 12.10 (Attorney's Fees, Costs and Expenses) and 12.11(Electronic Execution of Documents) of the Loan Agreement are incorporated herein by this reference as though set forth in full.

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.

GRANTORS:

GEMINI BIOPRODUCTS, LLC

Signature: Edwin Mendham
Print Name: Edwin Mendham
Title: Chief Financial Officer

GEMINI BIOPRODUCTS HOLDING, INC.

Signature: Harold Blue
Print Name: Harold Blue
Title: President

ORFLO TECHNOLOGIES, LLC

Signature: Edwin Mendham
Print Name: Edwin Mendham
Title: Chief Financial Officer

AGENT:

BROADOAK FUND V, L.P.

Signature: William Snider
Print Name: William Snider
Title: Manager

[Signature Page to Intellectual Property Security Agreement]

PATENT
REEL: 057806 FRAME: 0224

EXHIBIT A

Copyrights

None.

EXHIBIT B
Patents

ORFLO Technologies, LLC

CM#	Title	*	Type	Application No.	Filing Date	Publication No.	Publication Date	Patent No.	Patent Date	Expiration Date	Status
204359-1035-110	Combined Optical Imaging And Electrical Detection To Characterize Particles Carried In A Fluid	U.S.	ORD	13431877	27-Mar-2012	20130258318	03-Oct-2013	8804105	12-Aug-2014	18-Sep-2032	Granted
204359-1000-100	Disposable Particle Counter Cartridge	U.S.	DIV	12639095	16-Dec-2009			8329437	11-Dec-2012	16-Nov-2025	Granted
204359-1003-102	Fluorescence-Activated Cell Detector	U.S.	ORD	11701711	02-Feb-2007			7515268	07-Apr-2009	13-Jul-2027	Granted
204359-1004-102	Fluorescence-Activated Cell Detector [Cip Of 1003]	U.S.	CIP	12378757	19-Feb-2009	20090189088	30-Jul-2009	8072603	06-Dec-2011	01-Dec-2027	Granted
204359-1036-111	Fluorescence Flow Cytometry	U.S.	ORD	13492805	09-Jun-2012	20130327957	12-Dec-2013	8735853	27-May-2014	12-Jun-2032	Granted
204359-1040-111	Fluorescence Flow Cytometry [Jp]	Japan	PCT	2015515997	05-Jun-2013	2015518973	06-Jul-2015	6261569	22-Dec-2017	05-Jun-2033	Granted
204359-1041-111	Fluorescence Flow Cytometry Device And Method	U.S.	CIP	14287188	26-May-2014	20140264082	18-Sep-2014	9103760	11-Aug-2015	09-Jun-2032	Granted
204359-1042-111	Fluorescence Flow Cytometry Device And Method [Con Of 1041]	U.S.	CON	14801367	16-Jul-2015	20160103059	14-Apr-2016	9528926	27-Dec-2016	09-Jun-2032	Granted
204359-1043-111	Fluorescence Flow Cytometry [Ca]	Canada	PCT	2914628	04-Dec-2015	2914628	12-Dec-2013	2914628	15-Dec-2020	05-Jun-2033	Granted
204359-1051-111	Fluorescence Flow Cytometry Device And Method [Con Of 1043]	U.S.	CON	15362356	28-Nov-2016	20170205332	20-Jul-2017	9945770	17-Apr-2018	09-Jun-2032	Granted
204359-1039-111	Fluorescence Flow Cytometry [Ep]	EP	PCT	138000864	09-Jan-2015	2859332	15-Apr-2015				Allowed
204359-1073-111	Fluorescence Flow Cytometry [Gb Of 1039]	UK	EPP	138000864	09-Jan-2015	2859332	15-Apr-2015				Published
204359-1074-111	Fluorescence Flow Cytometry [De Of 1039]	Germany	EPP	138000864	09-Jan-2015	2859332	15-Apr-2015				Published
204359-1075-111	Fluorescence Flow Cytometry [Fr Of 1039]	France	EPP	138000864	09-Jan-2015	2859332	15-Apr-2015				Published
204359-1023-105	Method For Manufacturing A Microfluidic Sensor	U.S.	PCT	12936243	04-Oct-2010	201110030888	10-Feb-2011	8182635	22-May-2012	07-Apr-2029	Granted
204359-1024-105	Method For Manufacturing A Microfluidic Sensor [Con Of	U.S.	CON	13474485	17-May-2012	20120261067	18-Oct-2012	8608891	17-Dec-2013	04-Oct-2030	Granted
204359-1033-108	Method For Multiplexed Microfluidic Bead-Based	U.S.	CIP	13629784	28-Sep-2012	20140094377	03-Apr-2014	9452429	27-Sep-2016	02-Feb-2027	Granted
204359-1008-103	Microfluidic Interrogation Device	U.S.	CIP	13666131	01-Nov-2012			9293311	22-Mar-2016	27-Jan-2029	Granted
204359-1045-103	Microfluidic Interrogation Device [Con Of 1008]	U.S.	CON	15006332	26-Jan-2016	20160282254	29-Sep-2016	9952135	24-Apr-2018	02-Feb-2027	Granted
204359-1070-114	Optical Particle Analyzer [371 Of 1056]	U.S.	PCT	16323401	05-Feb-2019						Pending
204359-1005-103	Thin Film Particle Sensor	U.S.	ORD	11800167	04-May-2007			7520164	21-Apr-2009	26-Jun-2027	Granted
204359-1006-103	Thin Film Particle Sensor [Cip Of 1005]	U.S.	CIP	12381252	10-Mar-2009	20090272179	05-Nov-2009	8171778	08-May-2012	08-Dec-2028	Granted
204359-1001-101	Thin Film Sensor	U.S.	ORD	11452583	14-Jun-2006			7417418	26-Aug-2008	11-Sep-2026	Granted
204359-1002-101	Thin Film Sensor [Con Of 1001]	U.S.	CON	12156605	03-Jun-2008			7579823	25-Aug-2009	14-Jun-2026	Granted
204359-1072-115	Ultra-Sensitive Platform For Nucleic Acid Detection Using A Novel Method, Scanning Digital Polymerase Chain Reaction [Pcr] [Con Of 1066]	U.S.	CON	17093429	09-Nov-2020	20210054441	25-Feb-2021				Published

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204359-1065-113	Whole Blood Staining Preparation Cartridge And System [371 Of 1054]	U.S.	PCT	16084036	11-Sep-2018	20200292541	17-Sep-2020													Published
Abandoned, 2b Abandoned, And Converted Cases																				
204359-1053-112	Capillary Carousel Flow Cytometer [Pet Of 1044]	PCT	ORD																	Inactive
204359-1044-112	Capillary Carousel Flow Cytometer [Pro]	U.S.	PRO	62281915	22-Jan-2016															Expired
204359-1052-112	Capillary Carousel Flow Cytometer [Util Of 1044]	U.S.	ORD																	Inactive
204359-1055-114	Cartridge-Based Flow Cytometer And Sample Purifier [Pro]	U.S.	PRO	62480305	31-Mar-2017															Converted
204359-1057-115	Cell Droplet Generator/Sorter [Pro]	U.S.	PRO	62578866	30-Oct-2017															Expired
204359-1064-Tbd	Consumable Microplate For A Fully Automated Cell And Particle Analyzer [Pro]	U.S.	Pro	62677583	29-May-2018															Expired
204359-1061-Tbd	Electro-Magnetic, Cantilever Thin-Film Sorting [Pro]	U.S.	Pro	62619577	19-Jan-2018															Converted
204359-1060-Tbd	Electro-Magnetic, Thin-Film Particle Sorter [Pro]	U.S.	Pro	62615381	09-Jan-2018															Converted
204359-1038-111	Fluorescence Flow Cytometry [Cn]	(People's Republic)	PCT	201380042204.5	05-Jun-2013	CN104755912A	01-Jul-2015													Abandoned
204359-1037-111	Fluorescence Flow Cytometry [Pet]	PCT	ORD	PCTUS2013000145	05-Jun-2013	2013184168	12-Dec-2013													Converted
204359-1062-111	Fluorescence Flow Cytometry Device And Method [Con Of 1051] High Effici	U.S.	CON	15954260	16-Apr-2018	20180335378	22-Nov-2018													Abandoned
204359-1067-Tbd	Sequencing Prep System That Correlates Cell Phenotype With Genotype [Pet Of 1059, 1060, And 1061] High Efficiency, Array Based, Single Cell	Pet	Ord	Pctus2019012189	03-Jan-2019	2019136153	11-Jul-2019													2b abandoned
204359-1059-115	Sequencing Prep System That Correlates Cell Phenotype With Genotype [Pro]	U.S.	PRO	62613348	03-Jan-2018															Converted
204359-1017-104	Instrumented Pipette Tip	U.S.	PCT	12679548	23-Mar-2010	20100199788	12-Aug-2010	8015887	13-Sep-2011	26-Sep-2028										Sold
204359-1012-104	Instrumented Pipette Tip [Cn]	China	PCT	200880109435.2	29-Mar-2010	CN102316988A	11-Jan-2012	200880109435.2	19-Feb-2014	26-Sep-2028										Sold
204359-1013-104	Instrumented Pipette Tip [Ep]	EP	PCT	08835264.6	26-Sep-2008	2195114	16-Jun-2010	2195114	22-Mar-2017	26-Sep-2028										Sold
204359-1014-104	Instrumented Pipette Tip [In]	India	PCT	1661DELNP2010	10-Mar-2010															Sold
204359-1015-104	Instrumented Pipette Tip [Ip]	Japan	PCT	2010526963	29-Mar-2010	2010540226	24-Oct-2010	5658566	05-Dec-2014	26-Sep-2028										Sold
204359-1016-104	Instrumented Pipette Tip [Sg]	Singapore	PCT	2010019768	23-Mar-2010			160051	13-Jul-2012	26-Sep-2028										Sold
204359-1018-105	Method For Manufacturing A Microfluidic Sensor [Ep]	(People's Republic)	PCT	200980112090.0	07-Apr-2009	101999071	30-Mar-2011	200980112090.0	01-May-2013	07-Apr-2029										Abandoned
204359-1019-105	Method For Manufacturing A Microfluidic Sensor [In]	Patent Conventio	PCT	09731019.7	07-Apr-2009	2265923	29-Dec-2010													Abandoned
204359-1020-105	Method For Manufacturing A Microfluidic Sensor [Ip]	India	PCT	7046DELNP2010	05-Oct-2010															Abandoned
204359-1021-105	Method For Manufacturing A Microfluidic Sensor [Sg]	Japan	PCT	2011503986	06-Oct-2010	2011516884	26-May-2011	5303028	28-Jun-2013	07-Apr-2029										Abandoned
204359-1022-105	Method For Manufacturing A Microfluidic Sensor [Sg]	Singapore	PCT	20100066116	13-Sep-2010			164740	15-Apr-2013	07-Apr-2029										Lapsed
204359-1031-107	Microfluidic Cell Sorter And Method	U.S.	ORD	12699745	03-Feb-2010	20110189714	04-Aug-2011													Abandoned

204359-1032-107	Microfluidic Cell Sorter With Electroporation	U.S.	CIP	12872749	31-Aug-2010	20110189650	04-Aug-2011			Abandoned
204359-1063-103	Microfluidic Interrogation Device [Con Of 1045]	U.S.	CON	15953302	16-Apr-2018	20180335376	22-Nov-2018			Abandoned
204359-1048-108	Multiplexed Microfluidic Bead-Based Immunoassay [Con Of 1033]	U.S.	CON	15159652	19-May-2016	20170023560	26-Jan-2017			Abandoned
204359-1071-108	Multiplexed Microfluidic Bead-Based Immunoassay [Con Of 1048]	U.S.	CON	16298999	11-Mar-2019					Abandoned
204359-1068-114	Optical Particle Analyzer [Ep Of 1056]	Patent Conventio	PCT	17837823.8	05-Mar-2019	3494380	12-Jun-2019			Abandoned
204359-1069-114	Optical Particle Analyzer [Ip Of 1056]	Japan	PCT	2019527784	05-Feb-2019	2019525202	05-Sep-2019			Abandoned
204359-1056-114	Optical Particle Analyzer [Pct Of 1049, 1050, & 1051]	PCT	ORD	PCTUS2017045766	07-Aug-2017	2018027229	08-Feb-2018			Converted
204359-1049-114	Optical Single Particle Analyzer [Pro]	U.S.	PRO	62371395	05-Aug-2016					Converted
204359-1050-114	Optical Single Particle Analyzer [Pro]	U.S.	PRO	62420394	10-Nov-2016					Converted
204359-1030-106	Pipette Instrument	U.S.	PCT	13266450	26-Oct-2011	20120046883	23-Feb-2012	9470616	18-Oct-2016	10-Nov-2017
204359-1025-106	Pipette Instrument [Cn]	China	PCT	200980158970.1	26-Oct-2011	CN102414550A	11-Apr-2012	200980158970	16-Jul-2014	27-Apr-2029
204359-1026-106	Pipette Instrument [Ep]	EP	PCT	09844122.3	27-Apr-2009	2425226	07-Mar-2012			Sold
204359-1027-106	Pipette Instrument [In]	India	PCT	8375DELNP2011	24-Oct-2011					Sold
204359-1028-106	Pipette Instrument [Jp]	Japan	PCT	2012508437	27-Oct-2011	2012525585	22-Oct-2012	5550719	30-May-2014	27-Apr-2029
204359-1029-106	Pipette Instrument [Sg]	Singapore	PCT	2011077260	21-Oct-2011	0175303	28-Nov-2011	175303	31-Jul-2014	27-Apr-2029
204359-1007-103	Reusable Thin Film Particle Sensor	U.S.	CIP	12985536	06-Jan-2011	20110162439	07-Jul-2011	8616048	31-Dec-2013	05-Jun-2028
204359-1034-109	Sample-Acquiring Microfluidic Tester	U.S.	ORD	13615252	13-Sep-2012			9333502	10-May-2016	19-Sep-2034
204359-1047-109	Sample-Acquiring Microfluidic Tester [Con Of 1034] Ultra Sensitive Platform For Nucleic Acid	U.S.	CON	15133316	21-Apr-2016	20160256869	08-Sep-2016			Abandoned
204359-1058-115	Detection Using A Novel Method, Scanning Digital Polymerase Chain Reaction [Pro]	U.S.	PRO	62584055	09-Nov-2017					Converted
204359-1046-113	Whole Blood Staining Prep Cartridge For White Blood Cell Analysis [Pro]	U.S.	PRO	62308351	15-Mar-2016					15-Mar-2017
204359-1054-113	Whole Blood Staining Preparation Cartridge And System [Pat Of 1046]	PCT	ORD	PCTUS2017022602	15-Mar-2017	2017161057	21-Sep-2017			Converted
204359-1066-115	Ultra-Sensitive Platform For Nucleic Acid Detection Using A Novel Method, Scanning Digital Polymerase Chain Reaction [Pct] [Util Of 1058]	U.S.	ORD	16184863	08-Nov-2018	20190136296	09-May-2019			Abandoned

PATENT

EXHIBIT C

Trademarks

Gemini Bioproducts, LLC Trademarks:

1. Trademark (Reg. No. 5,451,423) registered on April 24, 2018 for "BENCHMARK".
2. Trademark (Reg. No. 5,457,753) registered on May 1 2018 for "CHRYSALIS".
3. Trademark (Reg. No. 5,437,088) registered on April 3, 2018 for "CONTINUUM".
4. Trademark (Reg. No. 5,457,751) registered May 1, 2018 for "FETALPLEX".
5. Trademark (Reg. No. 5,447,445) registered on April 17, 2018 for "FOUNDATION B".
6. Trademark (Reg. No. 5,447,439) registered on April 17, 2018 for "FOUNDATION".
7. Trademark (Reg. No. 5,473,957) registered on May 22, 2018 for "GEM 21 NEUROPLEX".
8. Trademark (Reg. No. 5,473,958) registered on May 22, 2018 for "N2 NEUROPLEX".
9. Trademark (Reg. No. 5,437,089) registered on April 3, 2018 for "NEUROPLEX".
10. Trademark (Reg. No. 5,473,959) registered on May 22, 2018 for "NO WORRIES".
11. Trademark (Reg. No. 5,457, 754) registered on May 1, 2018 for "STASIS".

ORFLO Technologies, LLC Trademarks:

1. ORFLO – Registered - App. Number 77/848484
2. Moxi Z – Registered – App. Number 85376056
3. Moxi Flow – Registered – App. Number 86/125344
4. Next-Gen Flow Cytometry – Registered – App. Number 86/458929
5. PrepDX – Pending – App. Number 87/261851