

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT5909462

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
UBIOME, INC.	12/27/2019

RECEIVING PARTY DATA

Name:	PSOMAGEN, INC.
Street Address:	1330 PICCARD DR
City:	ROCKVILLE
State/Country:	MARYLAND
Postal Code:	20850

PROPERTY NUMBERS Total: 342

Property Type	Number
Application Number:	14593424
Application Number:	14593436
Application Number:	14593466
Application Number:	14919614
Application Number:	15097862
Application Number:	15098027
Application Number:	15098081
Application Number:	15098110
Application Number:	15098153
Application Number:	15098174
Application Number:	15098204
Application Number:	15098222
Application Number:	15098236
Application Number:	15098248
Application Number:	15183643
Application Number:	15183652
Application Number:	15198818
Application Number:	15203589
Application Number:	15204707
Application Number:	15207897

PATENT

Property Type	Number
Application Number:	15207930
Application Number:	15228890
Application Number:	15240919
Application Number:	15294482
Application Number:	15294526
Application Number:	15374890
Application Number:	15452529
Application Number:	15497072
Application Number:	15606692
Application Number:	15606709
Application Number:	15606743
Application Number:	15606824
Application Number:	15606874
Application Number:	15606909
Application Number:	15606943
Application Number:	15606975
Application Number:	15621144
Application Number:	15621152
Application Number:	15621168
Application Number:	15621187
Application Number:	15621363
Application Number:	15621378
Application Number:	15621398
Application Number:	15621420
Application Number:	15621445
Application Number:	15636015
Application Number:	15644612
Application Number:	15644628
Application Number:	15645008
Application Number:	15645034
Application Number:	15645049
Application Number:	15645062
Application Number:	15645076
Application Number:	15645102
Application Number:	15649497
Application Number:	15655427
Application Number:	15655468
Application Number:	15655513

Property Type	Number
Application Number:	15655587
Application Number:	15655611
Application Number:	15655640
Application Number:	15664067
Application Number:	15668595
Application Number:	15668620
Application Number:	15668636
Application Number:	15668653
Application Number:	15668932
Application Number:	15668956
Application Number:	15679633
Application Number:	15679697
Application Number:	15679821
Application Number:	15679903
Application Number:	15679954
Application Number:	15707907
Application Number:	15717807
Application Number:	15811544
Application Number:	15815365
Application Number:	15815622
Application Number:	15815636
Application Number:	15815995
Application Number:	15816041
Application Number:	15819190
Application Number:	15844139
Application Number:	15844360
Application Number:	15845190
Application Number:	15848779
Application Number:	15848824
Application Number:	15848985
Application Number:	15849041
Application Number:	15849110
Application Number:	15849186
Application Number:	15914925
Application Number:	15997654
Application Number:	16013858
Application Number:	16039276
Application Number:	16047840

Property Type	Number
Application Number:	16084941
Application Number:	16084945
Application Number:	16084946
Application Number:	16084947
Application Number:	16084962
Application Number:	16084964
Application Number:	16084965
Application Number:	16103830
Application Number:	16115536
Application Number:	16115542
Application Number:	16124108
Application Number:	16125619
Application Number:	16132195
Application Number:	16155729
Application Number:	16182482
Application Number:	16237109
Application Number:	16369834
Application Number:	16376355
Application Number:	61931612
Application Number:	61953683
Application Number:	62024947
Application Number:	62066369
Application Number:	62087551
Application Number:	62146767
Application Number:	62146789
Application Number:	62146810
Application Number:	62146818
Application Number:	62146833
Application Number:	62146846
Application Number:	62146852
Application Number:	62147058
Application Number:	62147071
Application Number:	62147077
Application Number:	62147083
Application Number:	62147092
Application Number:	62147096
Application Number:	62147102
Application Number:	62147107

Property Type	Number
Application Number:	62147124
Application Number:	62147202
Application Number:	62147217
Application Number:	62147226
Application Number:	62147287
Application Number:	62147304
Application Number:	62147314
Application Number:	62147315
Application Number:	62147321
Application Number:	62147324
Application Number:	62147328
Application Number:	62147334
Application Number:	62147337
Application Number:	62147345
Application Number:	62147348
Application Number:	62147355
Application Number:	62147364
Application Number:	62175748
Application Number:	62186793
Application Number:	62201001
Application Number:	62206654
Application Number:	62212998
Application Number:	62215891
Application Number:	62215892
Application Number:	62215900
Application Number:	62215909
Application Number:	62215912
Application Number:	62215917
Application Number:	62215924
Application Number:	62215939
Application Number:	62216002
Application Number:	62216016
Application Number:	62216023
Application Number:	62216028
Application Number:	62216030
Application Number:	62216035
Application Number:	62216042
Application Number:	62216049

Property Type	Number
Application Number:	62216082
Application Number:	62216086
Application Number:	62265077
Application Number:	62304642
Application Number:	62304645
Application Number:	62327048
Application Number:	62327089
Application Number:	62327126
Application Number:	62361943
Application Number:	62395939
Application Number:	62400401
Application Number:	62420733
Application Number:	62424717
Application Number:	62424843
Application Number:	62434881
Application Number:	62434894
Application Number:	62434902
Application Number:	62434912
Application Number:	62434917
Application Number:	62434923
Application Number:	62434948
Application Number:	62434952
Application Number:	62434959
Application Number:	62434978
Application Number:	62434995
Application Number:	62434999
Application Number:	62435006
Application Number:	62435013
Application Number:	62435167
Application Number:	62435170
Application Number:	62435178
Application Number:	62435184
Application Number:	62435246
Application Number:	62435263
Application Number:	62435299
Application Number:	62435316
Application Number:	62435332
Application Number:	62468286

Property Type	Number
Application Number:	62514356
Application Number:	62515396
Application Number:	62520058
Application Number:	62522293
Application Number:	62525379
Application Number:	62533816
Application Number:	62536924
Application Number:	62545039
Application Number:	62545056
Application Number:	62545065
Application Number:	62551155
Application Number:	62551157
Application Number:	62554985
Application Number:	62555782
Application Number:	62556968
Application Number:	62557423
Application Number:	62558489
Application Number:	62564777
Application Number:	62569853
Application Number:	62582162
Application Number:	62582172
Application Number:	62582191
Application Number:	62585131
Application Number:	62637959
Application Number:	62644347
Application Number:	62645091
Application Number:	62653402
Application Number:	62658308
Application Number:	62669328
Application Number:	62671410
Application Number:	62671435
Application Number:	62671971
Application Number:	62679783
Application Number:	62679785
Application Number:	62679787
Application Number:	62688978
Application Number:	62693826
Application Number:	62703770

Property Type	Number
Application Number:	62711388
Application Number:	62714061
Application Number:	62714065
Application Number:	62718333
Application Number:	62718340
Application Number:	62718343
Application Number:	62718344
Application Number:	62721034
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Application Number:	62724928
Application Number:	62727540
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Application Number:	62727980
Application Number:	62727987
Application Number:	62729848
Application Number:	62731019
Application Number:	62737108
Application Number:	62737837
Application Number:	62737920
Application Number:	62737922
Application Number:	62738844
Application Number:	62738857
Application Number:	62739846
Application Number:	62740425
Application Number:	62740896
Application Number:	62740900
Application Number:	62741860
Application Number:	62741889
Application Number:	62741954
Application Number:	62743688
Application Number:	62748033
Application Number:	62748045
Application Number:	62748058
Application Number:	62748065
Application Number:	62751382
Application Number:	62752307
Application Number:	62752310
Application Number:	62752313

Property Type	Number
Application Number:	62752316
Application Number:	62756054
Application Number:	62756524
Application Number:	62756557
Application Number:	62756559
Application Number:	62756564
Application Number:	62756566
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Application Number:	62757493
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Application Number:	62759975
Application Number:	62768427
Application Number:	62769118
Application Number:	62769129
Application Number:	62769135
Application Number:	62769148
Application Number:	62769155
Application Number:	62769157
Application Number:	62770919
Application Number:	62773411
Application Number:	62776364
Application Number:	62776367
Application Number:	62776369
Application Number:	62776852
Application Number:	62776859
Application Number:	62779415
Application Number:	62780759
Application Number:	62788939
Application Number:	62788953
Application Number:	62788955
Application Number:	62788957
Application Number:	62788958
Application Number:	62797165

Property Type	Number
Application Number:	62797167
Application Number:	62797171
Application Number:	62797173
Application Number:	62797175
Application Number:	62799294
Application Number:	62807760
Application Number:	62807761
Application Number:	62808304
Application Number:	62817564
Application Number:	62817621
Application Number:	62824095
Application Number:	62826469
Application Number:	62826479
Application Number:	62826497
Application Number:	62826505
Application Number:	62826515
Application Number:	62828074
Application Number:	62832811

CORRESPONDENCE DATA

Fax Number: (215)963-5001

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: 2027395309

Email: daniel.bucca@morganlewis.com

Correspondent Name: DANIEL BUCCA

Address Line 1: MORGAN, LEWIS & BOCKIUS, LLP

Address Line 2: 1111 PENNSYLVANIA AVENUE, NW

Address Line 4: WASHINGTON, D.C. 20004

ATTORNEY DOCKET NUMBER:	126317-5000
NAME OF SUBMITTER:	DANIEL BUCCA
SIGNATURE:	/Daniel Bucca/
DATE SIGNED:	01/14/2020

Total Attachments: 34

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INTELLECTUAL PROPERTY ASSIGNMENT AND ASSUMPTION AGREEMENT

This INTELLECTUAL PROPERTY ASSIGNMENT AND ASSUMPTION AGREEMENT (this "Agreement"), is executed and delivered as of December 27, 2019, by and between Alfred T. Giuliano, not individually, but solely in his capacity as chapter 7 trustee (the "Trustee" or "Seller") of the bankruptcy estate of uBiome, Inc. (the "Debtor"), to Psomagen, Inc., a Maryland corporation ("Buyer"), pursuant to the Asset Purchase Agreement (as hereinafter defined).

WHEREAS, on the terms and subject to the conditions of the Asset Purchase Agreement, dated as December 19, 2019, by and between Buyer and Seller (as modified, amended, or supplemented, the "Asset Purchase Agreement"), Seller agreed to, on the Closing Date, sell, convey, transfer, assign, and deliver to Buyer the Acquired Assets free and clear of all Encumbrances, other than Permitted Encumbrances;

WHEREAS, the Debtor is the owner of each of the Intellectual Property Assets hereto (the "Purchased Intellectual Property"); and

NOW, THEREFORE, for the consideration set forth in the Asset Purchase Agreement and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto, intending to be legally bound hereby, agree as follows:

1. Defined Terms. All initially capitalized terms used but not defined herein have the meaning given them in the Asset Purchase Agreement.

2. Assignment. On the terms and subject to the conditions set forth in the Asset Purchase Agreement, Seller hereby sells, conveys, transfers, assigns, and delivers to Buyer, and Buyer's successors and assigns,

i) all right, title and interest of the Debtor in and to the Purchased Intellectual Property, which Purchased Intellectual Property is more fully described on Exhibit "A" hereto, including all rights therein provided by international conventions and treaties, and the right to sue for past, present and future infringement thereof ("Transferred Rights");

ii) any and all rights to sue at law or in equity for any infringement, imitation, impairment, distortion, dilution or other unauthorized use or conduct in derogation of the Transferred Rights occurring prior to the Closing, including the right to receive all proceeds and damages therefrom;

iii) any and all rights to royalties, profits, compensation, license fees or other payments or remuneration of any kind relating to the Transferred Rights arising from and after the date of this Agreement; and

iv) any and all rights to obtain renewals, reissues, and extensions of registrations or other legal protections pertaining to the Transferred Rights.

Buyer, its successors and assigns, shall hold the rights to the foregoing for and during the existence of such Transferred Rights, and all renewals, reissues and extensions thereof, as fully and as

entirely as the same would have been held and enjoyed by Seller had this Agreement not been made.

3. Asset Purchase Agreement. This Agreement is in accordance with and is subject to the terms of the Asset Purchase Agreement. Nothing contained herein shall be deemed to supersede, enlarge on or modify any of the obligations, agreements, covenants or warranties of Seller contained in the Asset Purchase Agreement or the Order (I) Approving Sale of Intellectual Property and Other Assets Free and Clear of All Liens, Claims, Rights, and Other Interests and (II) Granting Other Related Relief entered by the United States Bankruptcy Court for the District of Delaware in Case No. 19-11938-LSS at Docket No. 263. If any conflict or other difference exists between the terms of this Agreement and the Asset Purchase Agreement, then the terms of the Asset Purchase Agreement shall govern and control. Except as set forth in the Asset Purchase Agreement, the Transferred Rights are being sold, conveyed, transferred, assigned and delivered hereunder "AS-IS", "WHERE-IS", and Seller does not make any express or implied representations, statements, warranties or conditions of any kind or nature whatsoever concerning the Transferred Rights being sold, conveyed, transferred, assigned and delivered hereunder.

4. Binding on Successors; No Third Party Beneficiaries. This Agreement shall be binding upon and inure to the benefit of the parties hereto and the respective successors in interest and permitted assigns of such parties. This Agreement is not intended to confer any rights or remedies upon any person or entity other than the parties hereto.

5. Counterparts. This Agreement may be executed in two (2) or more counterparts (including by facsimile or by an electronic scan delivered by electronic mail), each of which shall be deemed an original but all of which together shall be considered one and the same agreement and shall become effective when counterparts have been signed by each party hereto and delivered to the other parties, it being understood that each party need not sign the same counterpart. This Agreement may be executed and delivered by an electronic scan delivered by electronic mail. No party shall assert that the use of a facsimile machine or electronic transmission to deliver a signature or the fact that any signature was transmitted or communicated through the use of a facsimile machine or electronic transmission, constitutes a defense to the formation or delivery of a contract or a document, and each party hereto forever waives any such defenses.

6. Severability. If any provision of this Agreement is held invalid or unenforceable by any court of competent jurisdiction, the other provisions of this Agreement will remain in full force and effect. Any provision of this Agreement held invalid or unenforceable only in part or degree will remain in full force and effect to the extent not held invalid or unenforceable.

7. Amendments, Etc. Any amendment, modification or waiver of any term or provision of this Agreement must be in writing and signed by Seller and Buyer. Any waiver will be effective only in the specific instance and for the specific purpose for which it is given.

8. Governing Law. THIS AGREEMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH FEDERAL BANKRUPTCY LAW, TO THE EXTENT APPLICABLE, AND WHERE STATE LAW IS IMPLICATED THIS AGREEMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF DELAWARE, WITHOUT GIVING EFFECT TO THE CHOICE OF LAW

PRINCIPLES THEREOF, INCLUDING AS TO MATTERS OF CONSTRUCTION, VALIDITY, AND PERFORMANCE.

9. Bankruptcy Court Jurisdiction. BUYER AND SELLER AGREE THAT THE BANKRUPTCY COURT SHALL HAVE EXCLUSIVE JURISDICTION OVER ALL DISPUTES AND OTHER MATTERS RELATING TO (i) THE INTERPRETATION AND ENFORCEMENT OF THIS AGREEMENT OR ANY ANCILLARY DOCUMENT EXECUTED PURSUANT TO THIS AGREEMENT; OR (ii) THE ACQUIRED ASSETS AND ASSUMED LIABILITIES ASSUMED PURSUANT TO OR ARISING OUT OF THIS AGREEMENT OR ANY ANCILLARY DOCUMENT EXECUTED PURSUANT TO THIS AGREEMENT, AND BUYER EXPRESSLY CONSENTS TO AND AGREES NOT TO CONTEST SUCH EXCLUSIVE JURISDICTION; PROVIDED THAT IF THE BANKRUPTCY COURT IS UNWILLING OR UNABLE TO HEAR ANY SUCH DISPUTES AND OTHER MATTERS, THEN THE COURTS OF THE STATE OF DELAWARE, SITTING IN NEW CASTLE COUNTY, AND THE FEDERAL COURTS OF THE UNITED STATES OF AMERICA SITTING IN THE STATE OF DELAWARE SHALL HAVE EXCLUSIVE JURISDICTION OVER SUCH DISPUTES AND OTHER MATTERS EACH OF THE PARTIES HERETO HEREBY IRREVOCABLY WAIVES ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL PROCEEDING ARISING OUT OF OR RELATED TO THIS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY.

[Signature Page Follows]

IN WITNESS WHEREOF, the undersigned parties hereby execute this Agreement as of the day and year first above written.

BUYER:

PSOMAGEN, INC.

By: 

Name: Ryan W. Kim

Title: Chief Executive Officer

SELLER:

ALFRED T. GIULIANO, NOT INDIVIDUALLY, BUT SOLELY IN HIS CAPACITY AS CHAPTER 7 TRUSTEE OF THE BANKRUPTCY ESTATE OF uBIOME, INC.

By: 

Name: Alfred T. Giuliano, Chapter 7 Trustee

Exhibit "A"

1. U.S. Patents and Applications

Reference No.	Filing Date	Application Number	Title	Publication Date	Issue Date	Status
P01PRV1	25-Jan-14	61/931,612	Plasmid Controls	n/a	n/a	Expired
P01PRV2	14-Mar-14	61/953,683	Multiplex Markers	n/a	n/a	Expired
P01PRV3	15-Jul-14	62/024,947	Microbiome Analysis	n/a	n/a	Expired
P01US	9-Jan-15	14/593,424	Method and System for Microbiome Analysis	30-Jul-15	30-May-17	Granted
P01US2	9-Jan-15	14/593,436		30-Jul-15	14-May-19	Granted
P01US3	9-Jan-15	14/593,466		30-Jul-15	25-Jun-19	Granted
P01US4	26-May-17	15/606,692		21-Sep-17	14-May-19	Granted
P01US5	26-May-17	15/606,709		21-Sep-17	21-May-19	Granted
P02PRV	21-Oct-14	62/066,369	System and Method for Microbiome Analysis and Adjustment	n/a	n/a	Expired
P02PRV2	4-Dec-14	62/087,551	Method and System for Microbiome-Derived Diagnostics and Therapeutics	n/a	n/a	Expired
P02US	21-Oct-15	14/919,614	Method and system for microbiome-derived diagnostics and therapeutics	21-Apr-16	11-Jul-17	Granted
P02US1	14-Oct-16	15/294,482		9-Feb-17		Abandoned
P02US2	26-May-17	15/606,743		21-Sep-17		Granted
P02US3	26-May-17	15/606,824		14-Sep-17	23-Jul-19	Granted
P02US4	26-May-17	15/606,874		21-Sep-17	26-Mar-19	Granted
P02US5	26-May-17	15/606,909		21-Sep-17	9-Jul-19	Granted
P02US6	26-May-17	15/606,943		21-Sep-17	9-Jul-19	Granted
P02US7	26-May-17	15/606,975		21-Sep-17	13-Aug-19	Granted
P02US8	13-Jun-17	15/621,144		5-Oct-17	14-May-19	Granted
P02US9	13-Jun-17	15/621,152	5-Oct-17	25-Jun-19	Granted	

Reference No.	Filing Date	Application Number	Title	Publication Date	Issue Date	Status
P03PRV1	13-Apr-15	62/146,810	Method and system for Characterizing Attention Deficit Disorders	n/a	n/a	Expired
P03PRV2	13-Apr-15	62/146,833	Method and system for Characterizing Anxiety	n/a	n/a	Expired
P03PRV3	14-Apr-15	62/147,124	Method and system for Characterizing Aspergers Syndrome	n/a	n/a	Expired
P03PRV4	13-Apr-15	62/146,852	Method and system for Characterizing Autism	n/a	n/a	Expired
P03PRV5	14-Apr-15	62/147,058	Method and system for Characterizing Chronic fatigue Syndrome	n/a	n/a	Expired
P03PRV6	14-Apr-15	62/147,077	Method and system for Characterizing Depression	n/a	n/a	Expired
P03PRV7	14-Apr-15	62/147,315	Method and system for Characterizing Pernicious Anemia	n/a	n/a	Expired
P03PRV8	14-Apr-15	62/147,337	Method and system for Characterizing Stroke	n/a	n/a	Expired
P03US	13-Apr-16	15/097,862	Method and system for microbiome-derived diagnostics and therapeutics for neurological health issues	11-Aug-16	18-Jul-17	Granted
P03US2	6-Jul-16	15/203,589		27-Oct-16	9-Jul-19	Granted
P03US3	14-Oct-16			9-Feb-17		Abandoned
P03US4	13-Jun-17	15/621,168		28-Sep-17	23-Apr-19	Granted
P03US5	13-Jun-17	15/621,187		28-Sep-17		Abandoned
P03US6	13-Jun-17	15/621,363		28-Sep-17	18-Jun-19	Granted
P03US7	13-Jun-17	15/621,378		28-Sep-17	7-May-19	Granted
P03US8	13-Jun-17	15/621,398		28-Sep-17	23-Jul-19	Granted
P03US9	13-Jun-17	15/621,420		5-Oct-17	30-Jul-19	Granted
P03US10	13-Jun-17	15/621,445		28-Sep-17	23-Jul-19	Granted
P04PRV1	13-Apr-15	62/146,818	Method and system for Characterizing Acquired Immune Deficiency Syndrome	n/a	n/a	Expired
P04PRV2	13-Apr-15	62/146,846	Method and system for Characterizing Asthma	n/a	n/a	Expired
P04PRV3	14-Apr-15	62/147,287	Method and system for Characterizing Multiple Sclerosis	n/a	n/a	Expired
P04PRV4	14-Apr-15	62/147,324		n/a	n/a	Expired

Reference No.	Filing Date	Application Number	Title	Publication Date	Issue Date	Status
P04PRV5	14-Apr-15	62/147,328	Method and system for Characterizing Sjogrens Syndrome	n/a	n/a	Expired
P04PRV6	14-Apr-15	62/147,334	Method and system for Characterizing Sprue	n/a	n/a	Expired
P04PRV7	14-Apr-15	62/147,345	Method and system for Characterizing Systemic Lupus Erythematosus	n/a	n/a	Expired
P04PRV8	14-Apr-15		Method and system for Characterizing Type I Diabetes	n/a	n/a	Expired
P04US	13-Apr-16	15/098,027	Method and system for microbiome-derived diagnostics and therapeutics for autoimmune system conditions	4-Aug-16	11-Sep-18	Granted
P04US2	7-Jul-16	15/204,707		3-Nov-16	4-Jun-19	Granted
P04US3	7-Jul-17	15/644,612		2-Nov-17	18-Jun-19	Granted
P04US4	7-Jul-17	15/644,628		26-Oct-17	2-Jul-19	Granted
P04US5	10-Jul-17	15/645,008		26-Oct-17	18-Jun-19	Granted
P04US6	10-Jul-17	15/645,034		2-Nov-17	21-May-19	Granted
P04US7	10-Jul-17	15/645,049		2-Nov-17	25-Jun-19	Granted
P04US8	10-Jul-17	15/645,062		2-Nov-17	14-May-19	Granted
P04US9	10-Jul-17	15/645,076		26-Oct-17	14-May-19	Granted
P04US10	10-Jul-17	15/645,102		26-Oct-17	14-May-19	Granted
P05PRV1	14-Apr-15	62/147,058		Method and system for Characterizing Chronic Fatigue Syndrome	n/a	n/a
P05PRV2	14-Apr-15	62/147,107	Method and system for Characterizing Graves Disease	n/a	n/a	Expired
P05PRV3	14-Apr-15	62/147,202	Method and system for Characterizing Hashimotos Thyroiditis	n/a	n/a	Expired
P05PRV4	14-Apr-15	62/147,226	Method and system for Characterizing Metabolic Disease	n/a	n/a	Expired
P05PRV5	14-Apr-15	62/147,304	Method and system for Characterizing Obesity	n/a	n/a	Expired
P05PRV6	14-Apr-15	62/147,348	Method and system for Characterizing Type I Diabetes	n/a	n/a	Expired
P05PRV7	14-Apr-15	62/147,355	Method and system for Characterizing Type II Diabetes	n/a	n/a	Expired
P05US	13-Apr-16	15/098,248	Method and system for microbiome-derived diagnostics and therapeutics for endocrine system conditions	11-Aug-16	12-Sep-17	Granted
P05US2	12-Jul-16	15/207,897		24-Nov-16		Abandoned
P05US3	12-Jul-16	15/207,930		3-Nov-16		Abandoned

Reference No.	Filing Date	Application Number	Title	Publication Date	Issue Date	Status
P05US4	20-Jul-17	15/655,427		16-Nov-17		Abandoned
P05US5	20-Jul-17	15/655,468		2-Nov-17		Abandoned
P05US6	20-Jul-17	15/655,513		16-Nov-17		Abandoned
P05US7	20-Jul-17	15/655,587		16-Nov-17		Abandoned
P05US8	20-Jul-17	15/655,611		16-Nov-17		Abandoned
P05US9	20-Jul-17	15/655,640		2-Nov-17	9-Jul-19	Granted
P06PRV1	13-Apr-15	62/146,767	Method and system for Characterizing Reflux Disease	n/a	n/a	Expired
P06PRV2	13-Apr-15	62/146,818	Method and system for Characterizing Immune Deficiency Syndrome	n/a	n/a	Expired
P06PRV3	15-Apr-15	62/147,071	Method and system for Characterizing Colorectal Cancer	n/a	n/a	Expired
P06PRV4	14-Apr-15	62/147,287	Method and system for Characterizing Multiple Sclerosis	n/a	n/a	Expired
P06PRV5	14-Apr-15	62/147,314	Method and system for Characterizing Parkinson's Disease	n/a	n/a	Expired
P06PRV6	14-Apr-15	62/147,328	Method and system for Characterizing Sjogrens Syndrome	n/a	n/a	Expired
P06PRV7	14-Apr-15	62/147,337	Method and system for Characterizing Stroke	n/a	n/a	Expired
P06US	13-Apr-16	15/098,236	Method and system for microbiome-derived diagnostics and therapeutics for mental health associated conditions	26-Jan-17		Abandoned
P06US2	3-Aug-17	15/668,595		16-Nov-17		Abandoned
P06US3	3-Aug-17	15/668,620		14-Dec-17		Abandoned
P06US4	3-Aug-17	15/668,636		16-Nov-17		Abandoned
P06US5	3-Aug-17	15/668,653		14-Dec-17		Abandoned
P07PRV1	14-Apr-15	62/147,102		Method and system for Characterizing Gout	n/a	n/a
P07PRV2	14-Apr-15	62/147,321	Method and system for Characterizing Reactive Arthritis	n/a	n/a	Expired
P07PRV3	14-Apr-15	62/147,324	Method and system for Characterizing Rheumatoid Arthritis	n/a	n/a	Expired
P07PRV4	14-Apr-15	62/147,287	Method and system for Characterizing Multiple Sclerosis	n/a	n/a	Expired
P07PRV5	14-Apr-15	62/147,314	Method and system for Characterizing Parkinson's Disease	n/a	n/a	Expired

Reference No.	Filing Date	Application Number	Title	Publication Date	Issue Date	Status
P07US	13-Apr-16	15/098,222	Method and system for microbiome-derived diagnostics and therapeutics for locomotor system conditions	8-Sep-16	10-Sep-19	Granted
P07US2	4-Aug-17	15/668,932		14-Dec-17		Abandoned
P07US3	4-Aug-17	15/668,956		14-Dec-17		Abandoned
P07US4	17-Aug-17	15/679,633		30-Nov-17		Abandoned
P07US5	17-Aug-17	15/679,697		28-Dec-17		Abandoned
P08PRV1	13-Apr-15	62/146,833	Method and system for Characterizing Anxiety	n/a	n/a	Expired
P08PRV2	14-Apr-15	62/147,058	Method and system for Characterizing Chronic Fatigue Syndrome	n/a	n/a	Expired
P08PRV3	14-Apr-15	62/147,077	Method and system for Characterizing Depression	n/a	n/a	Expired
P08PRV4	14-Apr-15	62/147,202	Method and system for Characterizing Hashimotos Thyroiditis	n/a	n/a	Expired
P08PRV5	14-Apr-15	62/147,334	Method and system for Characterizing Sprue	n/a	n/a	Expired
P08US	13-Apr-16	15/098,204	Method and system for microbiome-derived diagnostics and therapeutics for conditions associated with microbiome functional features	11-Aug-16	12-Sep-17	Granted
P08US2	28-Jun-17	15/636,015		19-Oct-17	23-Jul-19	Granted
P08US3	17-Aug-17	15/679,821		28-Dec-17		Abandoned
P09 PRV1	13-Apr-15	62/146,767	Method and system for Characterizing Reflux Diseases	n/a	n/a	Expired
P09 PRV2	13-Apr-15	62/146,833	Method and system for Characterizing Anxiety	n/a	n/a	Expired
P09 PRV3	14-Apr-15	62/147,077	Method and system for Characterizing Depression	n/a	n/a	Expired
P09 PRV4	14-Apr-15	62/147,304	Method and system for Characterizing Obesity	n/a	n/a	Expired
P09 US	13-Apr-16	15/098,174	Method and system for microbiome-derived diagnostics and therapeutics for conditions associated with microbiome taxonomic features	4-Aug-16	23-Apr-19	Granted
P09 US2	14-Oct-16	15/294,526		9-Feb-17		Abandoned
P09 US3	17-Aug-17	15/679,903		28-Dec-17		Abandoned
P09 US4	17-Aug-17	15/679,954		28-Dec-17		Abandoned
P10 PRV1	13-Apr-15	62/146,818	Method and system for Characterizing Chronic Fatigue Syndrome	n/a	n/a	Expired

Reference No.	Filing Date	Application Number	Title	Publication Date	Issue Date	Status
P10 PRV2	14-Apr-15	62/147,096	Method and system for Characterizing Gastric Cancer	n/a	n/a	Expired
P10 PRV3	14-Apr-15	62/147,334	Method and system for Characterizing Sprue	n/a	n/a	Expired
P10 US	13-Apr-16	15/098,110	Method and system for microbiome-derived characterization, diagnostics and therapeutics for conditions associated with functional features	11-Aug-16	23-Jul-19	Granted
P10 US2	16-Nov-17	15/815,365		15-Mar-18	25-Jun-19	Granted
P10 US3	16-Nov-17	15/815,622		15-Mar-18	20-Aug-19	Granted
P10 US4	16-Nov-17	15/815,636		15-Mar-18	25-Jun-19	Granted
P11 PRV1	14-Apr-15	62/147,092		Method and system for Characterizing Coronary Heart Disease	n/a	n/a
P11 PRV2	14-Apr-15	62/147,217	Method and system for Characterizing Inflammatory Heart Disease	n/a	n/a	Expired
P11 PRV3	14-Apr-15	62/147,364	Method and system for Characterizing Valvular Heart Disease	n/a	n/a	Expired
P11 PRV4	14-Apr-15	62/147,304	Method and system for Characterizing Obesity	n/a	n/a	Expired
P11 PRV5	14-Apr-15	62/147,337	Method and system for Characterizing Stroke	n/a	n/a	Expired
P11 US	13-Apr-16	15/098,081	Method and system for microbiome-derived characterization, diagnostics and therapeutics for cardiovascular disease conditions	11-Aug-16	5-Sep-17	Granted
P11 US2	31-Jul-17	15/664,067		16-Nov-17		Abandoned
P11 US3	17-Nov-17	15/815,995		3-May-18	30-Jul-19	Granted
P11 US4	17-Nov-17	15/816,041		29-Mar-18	9-Jul-19	Granted
P11 US5	20-Dec-17	15/848,779		17-May-18	9-Jul-19	Granted
P11 US6	20-Dec-17	15/848,824		17-May-18	9-Jul-19	Granted
P12PRV1	13-Apr-15	62/146,789		Method and system for Characterizing Acne	n/a	n/a
P12PRV2	14-Apr-15	62/147,083	Method and system for Characterizing Dermatomyositis	n/a	n/a	Expired
P12US	13-Apr-16	15/098,153	Method and system for microbiome-derived characterization, diagnostics and therapeutics for cutaneous conditions	11-Aug-16	10-Sep-19	Granted
P12US2	20-Dec-17	15/848,985		3-May-18	13-Aug-19	Granted
P12US3	20-Dec-17	15/849,041		3-May-18	16-Jul-19	Granted
P12US4	20-Dec-17	15/849,110		3-May-18	9-Jul-19	Granted

Reference No.	Filing Date	Application Number	Title	Publication Date	Issue Date	Status
P12US5	20-Dec-17	15/849,186		3-May-18	18-Dec-19	Granted
P13PRV	15-Jun-15	62/175,748	Method and system for Nucleic Acid Sequencing in Characterization of Antibody Binding Behavior	n/a	n/a	Expired
P13US	15-Jun-16	15/183,643	Method and system for sequencing in characterization of antibody binding behavior	15-Dec-16		Pending
P13US01	15-Jun-16	15/183,652	Method and system for sequencing in characterization of antibody binding behavior	15-Dec-18		Abandoned
P14PRV	30-Jun-15	62/186,793	Method and system for diagnostic testing	n/a	n/a	Expired
P14US	30-Jun-16	15/198,818	Method and system for diagnostic testing	5-Jan-17	17-Sep-19	Granted
P15PRV	4-Aug-15	62/201,001	Digital Microfluidics System and Method	n/a	n/a	Expired
P15PRV2	1-Sep-15	62/212,998	Digital Microfluidics System and Method	n/a	n/a	Expired
P15US	4-Aug-16	15/228,890	Digital microfluidics system and method	9-Feb-17		Pending
P16PRV	18-Aug-15	62/206,654	Method and system for multiplex primer design	n/a	n/a	Expired
P16US	18-Aug-16	15/240,919	Method and system for multiplex primer design	23-Feb-17		Abandoned
P17 PRV	13-Jul-16	62/361,943	Method and system for microbial pharmacogenomics	n/a	n/a	Expired
P17 US	13-Jul-17	15/649,497	Method and system for microbial pharmacogenomics	26-Oct-17		Abandoned
P19PRV	16-Sep-16	62/395,939	Method and System for Gut Pathogen Panel Characterizations	n/a	n/a	Expired
P19PRV2	15-Jun-17	62/520,058	Method and System for Panel Characterizations	n/a	n/a	Expired
P19PRV3	27-Jun-17	62/525,379	Method and System for Evaluating Microbiome Characteristics	n/a	n/a	Expired
P19US	18-Sep-17	15/707,907	Method and System for Panel Characterizations	17-May-18		Pending
P20 PRV1	15-Sep-15	62/215,917	Method and System for Characterizing Eczema	n/a	n/a	Expired
P20 PRV2	25-Apr-16	62/327,048	Method and System for Characterizing Dry Skin	n/a	n/a	Expired
P20 PRV3	25-Apr-16	62/327,089	Method and System for Characterizing Dandruff	n/a	n/a	Expired

Reference No.	Filing Date	Application Number	Title	Publication Date	Issue Date	Status
P20 PRV4	25-Apr-16	62/327,126	Method and System for Characterizing Photosensitivity	n/a	n/a	Expired
P20 PRV5		62/216,030	Method and System for Characterizing Pimples	n/a	n/a	abandoned
P20 US	25-Apr-17	15/497,072	Method and System for Characterizing Skin Related Conditions	10-Aug-17	1-Jan-19	Granted
P20 US2	31-Dec-18	16/237,109	Method and System for Characterizing Skin Related Conditions			Pending
P21PRV	11-Nov-16	62/420,733	Method and System for Fragment Assembly and Sequence Identification	n/a	n/a	Expired
P21PRV2	21-Nov-16	62/424,843	Method and System for Fragment Assembly and Sequence Identification	n/a	n/a	Expired
P21US	13-Nov-17	15/811,544	Method and System for Fragment Assembly and Sequence Identification	17-May-18	9-Apr-19	Granted
P21US2	5-Apr-19	16/376,355	Method and System for Fragment Assembly and Sequence Identification	1-Aug-19		Pending
P22PRV	27-Sep-16	62/400,401	Method and System for Crispr-Based Library Preparation and Sequencing	n/a	n/a	Expired
P22US	27-Sep-17	15/717,807	Method and System for Crispr-Based Library Preparation and Sequencing	29-Mar-18		Pending
P23 PRV	9-Dec-15	62/265,077	Method and System for Characterization of Clostridium Difficile Associated Conditions	n/a	n/a	Expired
P23 US	9-Dec-16	15/374,890	Method and System for Characterization of Clostridium Difficile Associated Conditions	17-Aug-17		Abandoned
P24PRV	21-Nov-16	62/424,717	Method and System for Characterizing Migraine	n/a	n/a	Expired
P24US	21-Nov-17	15/819,190	Method and System for Characterizing a Headache-Related Condition	12-Apr-18	20-Aug-19	Granted
P26 PRV1	7-Mar-16	62/304,642	Method and System for Characterizing Gingivitis	n/a	n/a	Expired
P26 PRV2	7-Mar-16	62/304,645	Method and System for Characterizing Halitosis	n/a	n/a	Expired
P26 US	7-Mar-17	15/452,529	Method and system for characterizing mouth-associated conditions	22-Jun-17	2-Apr-19	Granted
P26 US2	29-Mar-19	16/369,834	Method and system for characterizing mouth-associated conditions			Pending
P27PRV1	15-Dec-16	62/434,881	Method and system for characterizing wheat Allergy Microorganisms-Associated	n/a	n/a	Expired

Reference No.	Filing Date	Application Number	Title	Publication Date	Issue Date	Status
P27PRV2	15-Dec-16	62/434,894	Method and system for characterizing Treenut Allergy-Associated-Microorganisms	n/a	n/a	Expired
P27PRV3	15-Dec-16	62/434,902	Method and system for characterizing Shellfish Allergy-Associated-Microorganisms	n/a	n/a	Expired
P27PRV4	15-Dec-16	62/434,912	Method and system for characterizing Soy Allergy-Associated-Microorganisms	n/a	n/a	Expired
P27PRV5	15-Dec-16	62/434,917	Method and system for characterizing Peanut Allergy-Associated-Microorganisms	n/a	n/a	Expired
P27PRV6	15-Dec-16	62/434,923	Method and system for characterizing Egg Allergy-Associated-Microorganisms With Food Habits and Diet	n/a	n/a	Expired
P27PRV7	11-Sep-17	62/556,968	Method and System for Characterizing Cluster 1 allergy-associated-microorganisms: Wheat allergy and egg allergy.	n/a	n/a	Expired
P27PRV8	11-Sep-17	62/557,423	Method and System for Characterizing Cluster 1 allergy-associated-microorganisms: Wheat allergy and egg allergy.	n/a	n/a	Expired
P27cPRV9	28-Sep-17	62/564,777	Method and System for Characterizing Cluster 2 allergy-associated-microorganisms: Treenut allergy, peanut allergy, shellfish allergy and soy allergy	n/a	n/a	Expired
P27US	15-Dec-17	15/844,360	Method and System for Characterizing Allergy-Related Conditions Associated with Microorganisms	26-Apr-18	13-Aug-19	Granted
P28 PRV1	15-Dec-16	62/434,948	Method and System for Characterizing Associated-Microorganisms for Two Diet Sets: Vegetarian & Vegan Diet Vs Omnivores & Raw Meat Eaters	n/a	n/a	Expired
P28 PRV2	15-Dec-16	62/434,952	Method and System for Characterizing Associated-Microorganisms for Two Diet Sets: Lowcarb Diet Vs Omnivores & Raw Meat Eaters	n/a	n/a	Expired

Reference No.	Filing Date	Application Number	Title	Publication Date	Issue Date	Status
P28 PRV3	15-Dec-16	62/434,959	Method and System for Characterizing Associated-Microorganisms for Two Diet Sets: Lowcarb Diet Vs Vegetarian & Vegans	n/a	n/a	Expired
P28 PRV4	15-Dec-16	62/434,978	Method and System for Characterizing Associated-Microorganisms for Two Diet Sets: Dairy Free & Gluten Free Diet Vs Omnivores	n/a	n/a	Expired
P28 PRV5	15-Dec-16	62/434,995	Method and System for Characterizing Associated-Microorganisms for Two Diet Sets: Dairy Free & Gluten Free Diet Vs Vegetarian	n/a	n/a	Expired
P28 PRV6	15-Dec-16	62/434,999	Method and System for Characterizing Diabetes-Associated-Microorganisms with Food Habits & Diet	n/a	n/a	Expired
P28 PRV7	15-Dec-16	62/435,006	Method and System for Characterizing Lactose & Fermented Food Tolerance Associated-Microorganisms	n/a	n/a	Expired
P28 PRV8	15-Dec-16	62/435,013	Method and System for Characterizing Microorganisms-Associated Dairy Allergies	n/a	n/a	Expired
P28 US	15-Dec-17	15/844,139	Method and System for Characterizing Diet-Related Conditions	3-May-18	18-Jun-19	Granted
P29 PRV1	16-Dec-16	62/435,167	Method and System for Characterizing Caffeine Consumption Associated-Microorganisms	n/a	n/a	Expired
P29 PRV2	16-Dec-16	62/435,170	Method and System for Characterizing Cancer-Associated-Microorganisms	n/a	n/a	Expired
P29 PRV3	16-Dec-16	62/435,178	Method and System for Characterizing Anemia-Associated-Microorganisms	n/a	n/a	Expired
P29 PRV4	16-Dec-16	62/435,184	Method and System for Characterizing Alcohol Consumption Associated-Microorganisms	n/a	n/a	Expired
P29 PRV5	16-Dec-16	62/435,246	Method and System for Characterizing Extreme Physical Exercises Associated-Microorganisms	n/a	n/a	Expired
P29 PRV6	16-Dec-16	62/435,263	Method and System for Characterizing Moderate Physical Exercises Associated-Microorganisms	n/a	n/a	Expired

Reference No.	Filing Date	Application Number	Title	Publication Date	Issue Date	Status
P29 PRV7	16-Dec-16	62/435,299	Method and System for Characterizing Menopause Associated-Microorganisms	n/a	n/a	Expired
P29 PRV8	16-Dec-16	62/435,316	Method and System for Characterizing Probiotics-Associated-Microorganisms With foods Habits and Diet	n/a	n/a	Expired
P29 PRV9	16-Dec-16	62/435,332	Method and System for Characterizing Lyme Disease-Associated-Microorganisms	n/a	n/a	Expired
P29 US	18-Dec-17	15/845,190	Method and System for Characterizing Microorganism-Related Conditions	3-May-18	30-Jul-19	Granted
P30PRV	7-Mar-17	62/468,286	Therapeutic & Diagnostics Compositions Targeting Toll-Like Receptors and Methods Thereof	n/a	n/a	Expired
P30PRV2	25-Jul-17	62/536,924	Therapeutic & Diagnostics Compositions Targeting Toll-Like Receptors and Methods Thereof	n/a	n/a	Expired
P30US	7-Mar-18	15/914,925	Therapeutic & Diagnostics Compositions Targeting Toll-Like Receptors and Methods Thereof	1-Nov-18		Pending
P31PRV	20-Jun-17	62/522,293	Unique Molecular Identifiers in Library Preparation for NGS	n/a	n/a	Pending
P31US	20-Jun-18	16/013,858	Method and system for library preparation with unique molecular identifiers	20-Dec-18		Abandoned
P32PRV	2-Jun-17	62/514,356	Method and System for Characterizing Microorganism-Associated Sleep Quality	n/a	n/a	Expired
P32PRV2	5-Jun-17	62/515,396	Method and System for Characterizing Sleep Quality Microorganism-Associated	n/a	n/a	Expired
P32US	4-Jun-18	15/997,654	Method and System for Characterizing Microorganism-Associated Sleep-Related Conditions	4-Jun-18	27-Aug-19	Granted
P33PRV	18-Jul-17	62/533,816	Method and System for Characterizing Microorganism-Associated Appendix Conditions Diagnosis and Treatment	n/a	n/a	Pending
P33US	18-Jul-2018	16/039,276	Method and system for characterization for appendix-related conditions associated with microorganisms	29-Nov-18		Pending

Reference No.	Filing Date	Application Number	Title	Publication Date	Issue Date	Status
P34 PRV	14-Aug-17	62/545,039	Method and System for Characterizing Skin Related Conditions	n/a	n/a	Pending
P35cPRV1	14-Aug-17	62/545,056	Choline Lyase Enzyme Targeted Drugs for Diagnostic and Treatment of Diseases	n/a	n/a	Expired
P35cPRV2	14-Aug-17	62/545,065	Rieske-Type Oxigenase/Reductase Targeted Drugs for Diagnostic and Treatment of Diseases	n/a	n/a	Expired
P35US	14-Aug-18	16/103,830	Rieske-type oxygenase/reductase targeted drugs for diagnostic and treatment of diseases	14-Feb-19		Abandoned
P36PRV	28-Aug-17	62/551,155	Method and system for Vaginal Panel Characterizations	n/a	n/a	Expired
P36US	28-Aug-18	16/115,542	Method and system for characterization for female reproductive system-related conditions associated with microorganisms	14-Mar-19		Pending
P37 cPRV	28-Aug-17	62/551,157	Flask Plug	n/a	n/a	Pending
P37 US	28-Aug-18	16/115,536	Device for protecting and sealing the opening of a container	28-Feb-19		Pending
P38 PRV	6-Sep-17	62/554,985	Signature of the Nose Microbiome Across Geographical and Temporal Changes	n/a	n/a	Expired
P38 US	06-Sep-18	16/124,108	Nasal-related characterization associated with the nose microbiome	17-Jan-19		Abandoned
P39 PRV	8-Sep-17	62/555,782	Three steep PCR for Normalized Library Preparation for Next Generation Sequencing	n/a	n/a	Expired
P39 US	07-Sep-18	16/125,619	Normalization for sequencing libraries	14-Mar-19		Abandoned
P40PRV	14-Sep-17	62/558,489	Method to Calculate an Association Significance Index Between Health Condition and Taxa	n/a	n/a	Expired
P40US	14-Sep-18	16/132,195	Microorganism-related significance index metrics	14-Mar-19		Abandoned
P41 PRV	9-Oct-17	62/569,853	Single Molecule Sequencing and Unique Molecular Identifiers to Characterize Nucleic Acid Sequences	n/a	n/a	Expired
P41 US	11-Oct-18	16/155,729	Single Molecule Sequencing and Unique Molecular Identifiers to Characterize Nucleic Acid Sequences	9-May-19		Abandoned

Reference No.	Filing Date	Application Number	Title	Publication Date	Issue Date	Status
P42 PRV	6-Nov-17	62/582,162	Precision Sequencing Method and System	n/a	n/a	Expired
P42 PRV2	14-May-18	62/671,410	Normalization method by using magnetic fields and device	n/a	n/a	Expired
P43 PRV	6-Nov-17	62/582,172	Microbiome Profile Metrics Based on the Inclusion of replicates of Biological Control Samples	n/a	n/a	Expired
P43 US	6-Nov-18	16/182,482	Control processes for microorganism-related characterization processes	9-May-19		Pending
P44 cPRV	6-Nov-17	62/582,191	Disease-Associated Microbiome Characterization Process	n/a	n/a	Expired
P44 US	27-Jul-18	16/047,840	Disease-associated microbiome characterization process	14-Feb-19		Pending
P45 PRV	13-Nov-17	62/585,131	A New Sequencing Based women's Health Assay Combining Self-Sampling, HPV Detection and Genotyping, STI Detection, and Vaginal Microbiome Analysis	n/a	n/a	Expired
P45 PRV2	5-Apr-18	62/653,402	A novel sequencing-based women's health assay combining self-sampling, hpv detection and genotyping, sti detection, and vaginal microbiome analysis	n/a	n/a	Expired
P45 PRV3	7-Dec-18	62776852	A novel sequencing-based vaginal health assay combining self-sampling, HPV 2 detection and genotyping, STI detection, and vaginal microbiome analysis	n/a	n/a	Expired
P46 PRV	9-Sep-15	62/215,891	Method and system for Characterizing Antibiotic Usage	n/a	n/a	Expired
P46 US	13-Sep-18	16/084,941	Method and system for microbiome-derived diagnostics and therapeutics infectious disease and other health conditions associated with antibiotic usage	4-Apr-19		Pending
P47 PRV	9-Sep-15	62/215,900	Method and system for Characterizing Constipation	n/a	n/a	Expired
P47 PRV2	9-Sep-15	62/215,912	Method and system for Characterizing Diarrhea	n/a	n/a	Expired

Reference No.	Filing Date	Application Number	Title	Publication Date	Issue Date	Status
P47 PRV3	9-Sep-15	62/216,086	Method and system for Characterizing Hemorrhoids	n/a	n/a	Expired
P47 PRV4	9-Sep-15	62/216,049	Method and system for Characterizing Stomach Gas and Bloating	n/a	n/a	Expired
P47 PRV5	9-Sep-15	62/216,023	Method and system for Characterizing Lactose Intolerance	n/a	n/a	Expired
P47 PRV6	9-Sep-15	62/215,892	Method and system for Characterizing Bloody Stool	n/a	n/a	Expired
P47 US	13-Sep-18	16/084,946	Method and system for microbiome-derived diagnostics and therapeutics for conditions associated with gastrointestinal health	21-Mar-19		Pending
P48 PRV	9-Sep-15	62/216,082	Method and system for Characterizing Bacterial Vaginosis	n/a	n/a	Expired
P48 US	13-Sep-18	16/084,945	Method and system for microbiome-derived diagnostics and therapeutics for bacterial vaginosis			Pending
P49 PRV	9-Sep-15	62/215,909	Method and system for Characterizing Dental Decay	n/a	n/a	Expired
P49 PRV2	9-Sep-15	62/215,924	Method and system for Characterizing Gingivitis	n/a	n/a	Expired
P49 US	13-Sep-18	16/084,947	Method and system for microbiome-derived diagnostics and therapeutics for oral health	6-Jun-19		Pending
P50 PRV	9-Sep-15	62/216,002	Method and system for Characterizing Hyperthyroidism	n/a	n/a	Expired
P50 US	13-Sep-18	16/084,962	Method and system for microbiome-derived diagnostics and therapeutics for conditions associated with thyroid health issues	21-Mar-19		Pending
P51 PRV	9-Sep-15	62/216,042	Method and system for Characterizing Sinusitis	n/a	n/a	Expired
P51 PRV2	9-Sep-15	62/216,016	Method and system for Characterizing Insomnia	n/a	n/a	Expired
P51 PRV3	9-Sep-15	62/216,028	Method and system for Characterizing Light Sleep	n/a	n/a	Expired
P51 PRV4	9-Sep-15	62/215,939	Method and system for Characterizing Headaches	n/a	n/a	Expired
P51 PRV5	9-Sep-15	62/216,035	Method and system for Characterizing Poor Concentration	n/a	n/a	Expired
P51 US	13-Sep-18	16/084,965	Method and system for microbiome-derived diagnostics and therapeutics for conditions associated with cerebrocraniofacial health	11-Jul-19		Pending

Reference No.	Filing Date	Application Number	Title	Publication Date	Issue Date	Status
P52 PRV	9-Sep-15	62/215,917	Method and system for Characterizing Eczema	n/a	n/a	Expired
P52 US	13-Sep-18	16/084,964	Method and system for microbiome-derived diagnostics and therapeutics for eczema	9-May-19		Pending
P53PRV	15-May-18	62/671,971	Method and System for Panel Characterizations	n/a	n/a	Expired
P54PRV1	2-Mar-18	62/637959	High-throughput Particle Handling Through Direct interaction to a Dimensional Space Driver, by Use of Magnetic Fields	n/a	n/a	Expired
P54PRV2	19-Mar-18	62/645091	Magnetic Field-Based Nucleic Acid Manipulation And/Or Extraction	n/a	n/a	Expired
P55 PRV	16-Mar-18	62/644,347	Machine Learning and Artificial Intelligence Applications for Precision Medicine Solutions	n/a	n/a	Expired
P56PRV	16-Apr-18	62/658308	Cross-phenotype correlations reveal role of microbiome on disease pleiotropy	n/a	n/a	Expired
P57PRV	9-May-18	62/669328	Platform for microbiome identification, genetic determinant detection, and virulence gene detection by NGS	n/a	n/a	Expired
P58PRV	15-May-18	62/671435	Measures of reproducibility in sampling and laboratory processing methods in high-throughput microbiome analysis	n/a	n/a	Expired
P59PRV	2-June-18	62/679783	Metabolism Predictor Tool	n/a	n/a	Expired
P59PRV2	2-June-18	62/679785	Metabolism Explorer	n/a	n/a	Expired
P59PRV3	2-June-18	62/679787	Vitamins Explorer	n/a	n/a	Expired
P60PRV	22-June-18	62/688978	NGS detection and absolute quantitation of molecules with oligonucleotide-tagged binding proteins	n/a	n/a	Expired
P60PRV2	25-January-19	62/797165	Beyond nucleic acid detection: DNA-LISA	n/a	n/a	Expired
P61PRV	3-July-18	62/693826	Gut Barrier	n/a	n/a	Expired
P62PRV	26-July-18	62/703770	Diagnostics and detection of colorectal cancer and microorganisms associated elements	n/a	n/a	Expired
P62PRV2	11-September-18	62729848	Biomarkers for colorectal cancer	n/a	n/a	Expired

Reference No.	Filing Date	Application Number	Title	Publication Date	Issue Date	Status
P63PRV	27-July-18	62/711388	Gluten explorer for gluten sensitivity	n/a	n/a	Expired
P64PRV	2-August-18	62/714061	Inflammation Explorer	n/a	n/a	Expired
P65PRV	2-August-18	62/714065	Gluten explorer for gluten sensitivity	n/a	n/a	Expired
P66PRV	13-August-18	62/718333	High resolution profiling of microbial communities combining different regions of the gene of interest	n/a	n/a	Expired
P67PRV	13-August-18	62/718340	Alternative methods for 16S annotation	n/a	n/a	Expired
P68PRV	13-August-18	62/718343	Benchmark of metagenomics sequence classification tools using in silico generated mock communities	n/a	n/a	Expired
P69PRV	22-August-18	62/721034	Bacterial taxa and enzyme function abundances in the human gut correlate with lactose tolerance	n/a	n/a	Expired
P70PRV	13-August-18	62/718344	Design of agonists TLR2 peptides derived from the gut microbiota to be used as new therapeutics drugs	n/a	n/a	Expired
P71PRV	22-August-18	62/721041	Healthy Weight Explorer	n/a	n/a	Expired
P72PRV	30-August-18	62/724928	Artificial Sweeteners Explorer	n/a	n/a	Expired
P73PRV	6-September-18	62/727540	CRISPR-based capture and enrichment of nucleic acids	n/a	n/a	Expired
P74PRV	6-September-18	62/727975	Metagenomic Library Preparation	n/a	n/a	Expired
P75PRV	6-September-18	62/727980	Microbial diversity explorer	n/a	n/a	Expired
P76PRV	6-September-18	62/727987	Probiotic bacteria explorer	n/a	n/a	Expired
P77PRV	13-September-18	62/731019	System for personal health information (phi) data obfuscation	n/a	n/a	Expired
P78PRV	27-September-18	62/737108	Xenobiotics Metabolism	n/a	n/a	Expired
P79PRV	27-September-18	62/737837	Point of Care Microorganism-Associated Characterization Method and System	n/a	n/a	Expired

Reference No.	Filing Date	Application Number	Title	Publication Date	Issue Date	Status
P80PRV	28-September-18	62737920	On-demand sampling kit delivery and logistic method	n/a	n/a	Expired
P80PRV2	5-November-18	62756054	Fulfillment for On-demand sampling kit delivery	n/a	n/a	Expired
P81PRV	28-September-18	62737922	Automatic on-demand sampling kit delivery and logistic method	n/a	n/a	Expired
P82PRV	28-September-18	62738844	Epitope-based approach method, system, and therapeutic compositions	n/a	n/a	Expired
P83PRV	28-September-18	62738857	Epitope-based approach for a HPV treatment and detection method, system, and therapeutic compositions	n/a	n/a	Expired
P84PRV	1-October-18	62739846	Personalized Nutrition: The microbiome as a key modulator in nutrition	n/a	n/a	Expired
P85PRV	3-October-18	62740896	Decapper tool of sample containers for custom robotic system	n/a	n/a	Expired
P86PRV	3-October-18	62740900	Scanner for multi-sample container plate	n/a	n/a	Expired
P87PRV	3-October-18	62740425	CRISPR-Related Microbiome Modulation for Modifying Antibiotic Resistance	n/a	n/a	Expired
P88PRV	5-October-18	62741860	Encyclopedia: Colorectal Cancer	n/a	n/a	Expired
P89PRV	5-October-18	62741889	Epitope-based approach as a health associated condition treatment and detection method	n/a	n/a	Expired
P89PRV2	5-October-18	62741954	Epitope-based approach for a HPV treatment and detection method, system, and therapeutic compositions	n/a	n/a	Expired
P89PRV3	25-January-19	62797167	EPITOPE-BASED APPROACH FOR A HPV6 TREATMENT AND DETECTION METHOD, SYSTEM, AND THERAPEUTIC COMPOSITIONS	n/a	n/a	Expired
P89PRV4	25-January-19	62797171	EPITOPE-BASED APPROACH FOR A HPV11 TREATMENT AND DETECTION METHOD, SYSTEM, AND THERAPEUTIC COMPOSITIONS	n/a	n/a	Expired
P89PRV5	25-January-19	62797173	EPITOPE-BASED APPROACH FOR A HPV16 TREATMENT AND DETECTION METHOD, SYSTEM, AND THERAPEUTIC COMPOSITIONS	n/a	n/a	Expired

Reference No.	Filing Date	Application Number	Title	Publication Date	Issue Date	Status
P89PRV6	25-January-19	62797175	EPITOPE-BASED APPROACH FOR A HPV18 TREATMENT AND DETECTION METHOD, SYSTEM, AND THERAPEUTIC COMPOSITIONS	n/a	n/a	Expired
P90PRV	10-October-18	62743688	Welcome to you and your 39 trillion bacteria: microbiome analysis in health and disease	n/a	n/a	Expired
P91PRV	19-October-18	62748033	Mining large-scale datasets for new insights: from Microbiome studies to Drug Discovery	n/a	n/a	Expired
P91PRV2	30-November-18	62773411	How do we make the microbiome accessible and useful?	n/a	n/a	Expired
P92PRV	19-October-18	62748045	Identification of TMA-producing enzymes by sequence similarity networks and metagenomics validation.	n/a	n/a	Expired
P93PRV	19-October-18	62748058	Method and System for Vaginal Panel Characterizations (SmartJane v3)	n/a	n/a	Expired
P93PRV2	12-November-18	62759964	A novel vaginal health assay that combines HPV detection and genotyping, STI detection, and vaginal microbiome analysis in a self-sampling format	n/a	n/a	Expired
PRV3	20-February-19	62807761	Improved Methods and System for Diagnostics and/or Treatment for Cancer-Related Conditions associated with HPV infection	n/a	n/a	Expired
P94PRV	19-October-18	62748065	Method and System for Panel Characterizations (SmartGut v3)	n/a	n/a	Expired
P95PRV	26-October-18	62751382	Bioinformatics as the main protagonist of the microbiome field	n/a	n/a	Expired
P96PRV	29-October-18	62752307	Determining severity of disease	n/a	n/a	Expired
P97PRV	29-October-18	62752310	Decapper device with head replacer	n/a	n/a	Expired
P98PRV	29-October-18	62752313	Method and system for nasal and respiratory system microbiome characterization	n/a	n/a	Expired
P99PRV	29-October-18	62752316	Peptide Inhibitors against Fusobacterium nucleatum	n/a	n/a	Expired
P100PRV	6-November-18	62756524	High resolution profiling of microbial communities through novel approach of taxonomic mapping	n/a	n/a	Expired

Reference No.	Filing Date	Application Number	Title	Publication Date	Issue Date	Status
P101PRV	6-November-18	62756557	Challenges and approaches on the 16S annotation: A big picture of uBiome Explorer database	n/a	n/a	Expired
P102PRV	6-November-18	62756559	Benchmark of metagenomics sequence classification tools using in silico generated mock communities	n/a	n/a	Expired
P103PRV	6-November-18	62756564	Design of agonists TLR2 peptides derived from the gut microbiota to be used as new therapeutics drugs	n/a	n/a	Expired
P104PRV	6-November-18	62756566	Bacterial taxa and enzyme function abundances in the human gut correlate with lactose tolerance	n/a	n/a	Expired
P105PRV	9-November-18	62757463	Variations associated with Phenotype	n/a	n/a	Expired
P106PRV	9-November-18	62757469	Detection and Characterization of Analytes and Targets at Suitable Concentration	n/a	n/a	Expired
P107PRV	9-November-18	62757473	Identification of cell-type and/or Common Mutations	n/a	n/a	Expired
P108PRV	9-November-18	62757481	Phage Metagenome Assembly	n/a	n/a	Expired
P109PRV	9-November-18	62757487	Hi-C Metagenomics for Genome Reconstruction	n/a	n/a	Expired
P110PRV	9-November-18	62757493	Cell Free Sequencing	n/a	n/a	Expired
P111PRV	9-November-18	62757496	Diagnostics and/or Treatment Associated With Antibiotics	n/a	n/a	Expired
P112PRV	12-November-18	62759975	Alcohol Explorer	n/a	n/a	Expired
P113PRV	16-November-18	62768427	Construction methodology for custom tools to be integrated in custom robotic systems	n/a	n/a	Expired
P114PRV	19-November-18	62769118	Custom robotic system (crs) as a liquid and sample handling system	n/a	n/a	Expired
P115PRV	19-November-18	62769129	Needle tool for sample-handling robotic systems	n/a	n/a	Expired

Reference No.	Filing Date	Application Number	Title	Publication Date	Issue Date	Status
P116PRV	19-November-18	62769135	Fluid management device for sample-handling robotic systems	n/a	n/a	Expired
P117PRV	19-November-18	62769155	Sleep Quality Explorer	n/a	n/a	Expired
P118PRV	19-November-18	62769157	Genomic samples process monitoring based on automated visual tools for measurement of sequencing parameters	n/a	n/a	Expired
P119PRV	19-November-18	62769148	Compact sampling kit	n/a	n/a	Expired
P120PRV	23-November-18	62770919	Alcohol Metabolism Explorer	n/a	n/a	Expired
P121PRV	6-December-18	62776367	MULTI-CHANNEL FLUID SUPPLIER FOR SAMPLE-HANDLING ROBOTIC SYSTEM	n/a	n/a	Expired
P122PRV	6-December-18	62776364	MULTI-SIZE PLATE DISPENSER TOOL FOR SAMPLE-HANDLING ROBOTIC SYSTEM	n/a	n/a	Expired
P123PRV	6-December-18	62776369	TMA Explorer	n/a	n/a	Expired
P123PRV2	31-January-19	62799294	TMA Explorer	n/a	n/a	Expired
P124PRV	7-December-18	62776859	WELLNESS KIT	n/a	n/a	Expired
P125PRV	13-December-18	62779415	Identification Process for Microbiome Surface Proteins Involved in Disease Conditions of the Host	n/a	n/a	Expired
P126PRV	17-December-18	62780759	Automatic standardization pipeline for data analysis	n/a	n/a	Expired
P127PRV	7-January-19	62788955	METHOD AND SYSTEM TO TARGET BACTERIA WITH ANTIBACTERIAL COMPOUNDS FROM THE MICROBIOTA	n/a	n/a	Pending
P128PRV	7-January-19	62788957	METHOD AND SYSTEM FOR PROTECTING CELL JUNCTIONS PROTEINS OF INTESTINAL EPITHELIUM	n/a	n/a	Pending
P129PRV	7-January-19	62788958	METHOD AND SYSTEM FOR TARGETING MICROBIOTA PROTEINS MIMICKING HOST PROTEINS	n/a	n/a	Pending

Reference No.	Filing Date	Application Number	Title	Publication Date	Issue Date	Status
P130PRV	6-January-19	62788939	Small molecules as Inhibitors of HpHtRA protein in Helicobacter pylori	n/a	n/a	Pending
P131PRV	7-January-19	62788953	CagA inhibitors associated with H. Pylori and/or gastric cancer	n/a	n/a	Pending
P132PRV	20-February-19	62807760	Systems and Methods for Microbiome Modulation	n/a	n/a	Pending
P133PRV	20-February-19	62808304	Method and system for microbiome-derived companion diagnostics	n/a	n/a	Pending
P134PRV	13-March-19	62817564	Epitope-based approach for virulence factors and/or food allergy treatments and detection methods, systems, and/or therapeutics compositions	n/a	n/a	Pending
P135PRV	13-March-19	62817621	Epitope-based approach as a detection and/or treatment method, system, and/or therapeutic composition for peanuts allergy and/or related dietary food	n/a	n/a	Pending
P136PRV	26-March-19	62824095	UNLOCKING THE MICROBIOME FOR NEW OPPORTUNITIES IN DRUG DISCOVERY	n/a	n/a	Pending
P137PRV	29-March-19	62826469	Selection of candidate bacteria for use as Live Biotherapeutics (LBP) for antibiotic recovery treatment	n/a	n/a	Pending
P138PRV	29-March-19	62826479	Antibacterial Compounds Platform	n/a	n/a	Pending
P139PRV	29-March-19	62826497	Platform for selection of microorganisms for phage for treatment of conditions	n/a	n/a	Pending
P140PRV	29-March-19	62826505	Platform for selection of microorganisms for Live Biotherapeutics (LBPs) for treatment of conditions	n/a	n/a	Pending
P141PRV	29-March-19	62826515	Bacterial Metabolites Inhibitors Platform	n/a	n/a	Pending
P142PRV	2-April-19	62828074	Design of inhibitors of Crohn's Disease-Associated I2 Superantigen and MHC-II	n/a	n/a	Pending
P143PRV	11-April-19	62832811	UNLOCKING THE MICROBIOME FOR NEW OPPORTUNITIES IN DRUG DISCOVERY	n/a	n/a	Pending

2. PCT Applications

Reference No.	Filing Date	PCT Application No.	Title	Publication Date	Status
<u>P01WO</u>	9-Jan-15	PCT/US15/10824	Method and system for microbiome analysis	30-Jul-15	Expired
<u>P02WO</u>	21-Oct-15	PCT/US15/56767	Method and system for microbiome-derived diagnostics and therapeutics	28-Apr-16	Expired
<u>P03WO</u>	13-April-16	PCT/US16/27312	Method and system for microbiome-derived diagnostics and therapeutics for neurological health issues	20-Oct-16	Expired
<u>P04WO</u>	13-April-16	PCT/US16/27371	Method and system for microbiome-derived diagnostics and therapeutics for autoimmune system conditions	20-Oct-16	Expired
<u>P05WO</u>	13-April-16	PCT/US16/27378	Method and system for microbiome-derived diagnostics and therapeutics for endocrine system conditions	20-Oct-16	Expired
<u>P06WO</u>	13-April-16	PCT/US16/27365	Method and system for microbiome-derived diagnostics and therapeutics for mental health associated conditions	20-Oct-16	Expired
<u>P07WO</u>	13-April-16	PCT/US16/27360	Method and system for microbiome-derived diagnostics and therapeutics for locomotor system conditions	20-Oct-16	Expired
<u>P08WO</u>	13-April-16	PCT/US16/27359	Method and system for microbiome-derived diagnostics and therapeutics for conditions associated with microbiome functional features	20-Oct-16	Expired
<u>P09WO</u>	13-April-16	PCT/US16/27357	Method and system for microbiome-derived diagnostics and therapeutics for conditions associated with microbiome taxonomic features	20-Oct-16	Expired
<u>P10WO</u>	13-April-16	PCT/US16/27349	Method and system for microbiome-derived characterization, diagnostics and therapeutics for conditions associated with functional features	20-Oct-16	Expired

Reference No.	Filing Date	PCT Application No.	Title	Publication Date	Status
<u>P11WO</u>	13-April-16	PCT/US16/27341	Method and system for microbiome-derived characterization, diagnostics and therapeutics for cardiovascular disease conditions	20-Oct-16	Expired
<u>P12WO</u>	13-April-16	PCT/US16/27355	Method and system for microbiome-derived characterization, diagnostics and therapeutics for cutaneous conditions	20-Oct-16	Expired
<u>P13WO</u>	15-Jun-16	PCT/US16/37695	Method and system for sequencing in characterization of antibody binding behavior	22-Dec-16	Expired
<u>P14WO</u>	30-Jun-16	PCT/US16/40411	Method and system for diagnostic testing	5-Jan-17	Expired
<u>P17WO</u>	13-July-17	PCT/US17/42015	Method and system for microbial pharmacogenomics	18-Jan-18	Expired
<u>P19WO</u>	18-Sept-17	PCT/US17/52098	Method and system for panel characterizations	22-Mar-18	Expired
<u>P20WO</u>	25-Apr-17	PCT/US17/29470	Method and system for characterizing skin related conditions	2-Nov-17	Expired
<u>P21WO</u>	13-Nov-17	PCT/US17/61404	Method and system for fragment assembly and sequence identification.	15-May-18	Expired
<u>P22WO</u>	27-Sep-17	PCT/US17/53822	Method and system for crispr-based library preparation and sequencing.	5-Apr-18	Expired
<u>P23WO</u>	9-Dec-16	PCT/US16/065993	Method and system for characterization of clostridium difficile associated conditions.	15-Jun-17	Expired
<u>P24WO</u>	21-Nov-17	PCT/US17/62720	Method and system for characterizing a headache-related condition.	24-May-18	Expired
<u>P26WO</u>	7-March-17	PCT/US17/21202	Method and system for characterizing mouth-associated conditions	14-Sep-17	Expired
<u>P27WO</u>	15-Dec-17	PCT/US17/66866	Method and system for characterizing allergy-related conditions associated with microorganisms	21-Jun-18	Expired
<u>P28WO</u>	15-Dec-17	PCT/US17/66836	Method and system for characterizing diet-related conditions.	21-Jun-18	Expired

Reference No.	Filing Date	PCT Application No.	Title	Publication Date	Status
<u>P29WO</u>	18-Dec-17	PCT/US17/67003	Method and system for characterizing microorganism-related conditions.	21-Jun-18	Expired
<u>P30WO</u>	7-March-18	PCT/US18/21404	Therapeutic & diagnostics compositions targeting toll-like receptors and methods thereof.	13-Sep-18	Expired
<u>P31WO</u>	20-Jun-18	PCT/US18/038628	Method and system for library preparation with unique molecular identifiers	27-Dec-18	Pending
<u>P32WO</u>	4-Jun-18	PCT/US18/35912	Method and system for characterizing microorganism-associated sleep-related conditions	6-Dec-18	Pending
<u>P33WO</u>	18-Jul-18	PCT/US18/42773	Method and system for characterization for appendix-related conditions associated with microorganisms	24-Jan-19	Pending
<u>P35WO</u>	14-Aug-18	PCT/US18/046764	Targeted drugs associated with trimethylamine and/or trimethylamine-n-oxide	21-Feb-19	Pending
<u>P36WO</u>	28-Aug-18	PCT/US18/48412	Method and system for characterization for female reproductive system-related conditions associated with microorganisms	7-Mar-19	Pending
<u>P37WO</u>	28-Aug-18	PCT/US18/48410	Device for protecting and sealing the opening of a container	7-Mar-19	Pending
<u>P38WO</u>	6-Sep-18	PCT/US18/049806	Nasal-related characterization associated with the nose microbiome	14-Mar-19	Pending
<u>P39WO</u>	7-Sep-18	PCT/US18/050092	Normalization for sequencing libraries	14-Mar-19	Pending
<u>P40WO</u>	14-Sep-18	PCT/US18/51222	Microorganism-related significance index metrics	21-Mar-19	Pending
<u>P41WO</u>	9-Oct-18	PCT/US18/55067	Single molecule sequencing and unique molecular identifiers to characterize nucleic acid sequences	18-Apr-19	Pending
<u>P43WO</u>	6-Nov-18	PCT/US18/59488	Control processes for microorganism-related characterization processes	9-May-19	Pending
<u>P44WO</u>	27-July-18	PCT/US18/044141	Disease-associated microbiome characterization process	21-Feb-19	Pending

Reference No.	Filing Date	PCT Application No.	Title	Publication Date	Status
<u>P46WO</u>	9-Sep-16	PCT/US16/51149	Method and system for microbiome-derived diagnostics and therapeutics infectious disease and other health conditions associated with antibiotic usage	16-Mar-17	Expired
<u>P47WO</u>	9-Sep-16	PCT/US16/51174	Method and system for microbiome-derived diagnostics and therapeutics for conditions associated with gastrointestinal health	16-Mar-17	Expired
<u>P48WO</u>	9-Sep-16	PCT/US16/51156	Method and system for microbiome-derived diagnostics and therapeutics for bacterial vaginosis	16-Mar-17	Expired
<u>P49WO</u>	9-Sep-16	PCT/US16/51175	Method and system for microbiome-derived diagnostics and therapeutics for oral health	16-Mar-17	Expired
<u>P50WO</u>	9-Sep-16	PCT/US16/51173	Method and system for microbiome-derived diagnostics and therapeutics for conditions associated with thyroid health issues	16-Mar-17	Expired
<u>P51WO</u>	9-Sep-16	PCT/US16/51155	Method and system for microbiome-derived diagnostics and therapeutics for conditions associated with cerebro-craniofacial health	16-Mar-17	Expired
<u>P52WO</u>	9-Sep-16	PCT/US16/51136	Method and system for microbiome-derived diagnostics and therapeutics for eczema	16-Mar-17	Expired
<u>P54WO</u>	4-March-19	PCT/US19/020575	Method and system for high-throughput particle handling by use of magnetic fields and device	6-Sep-19	Pending
<u>P55WO</u>	18-March-19	PCT/US19/22807	Method and system for characterization of metabolism-associated condition, including diagnostics and therapies, based on bioinformatics approach	19-Sep-19	Pending
<u>P126WO</u>	12/17/2019	PCT/US19/66933	Automatic Standardization Pipeline for Data Analysis	N/A	Pending

3. International Applications

Ref. No.	Country	Application No.	PCT Application No.	PCT Filing Date	Title	Status
P01AU	AU	2015209718	PCT/US15/10824	9-Jan-15	Method and system for microbiome analysis	Pending
P01EU	EU	15740133.2				Pending
P01CA	CA	2936933				Pending
P02AU	AU	2015335907	PCT/US15/56767	21-Oct-15	Method and system for microbiome-derived diagnostics and therapeutics	Pending
P02EU	EU	15852829.9				Pending
P02CA	CA	2962466				Pending
P02CN	CN	2015800575177				Pending
P03AU	AU	2016248050	PCT/US16/27312	13-April-16	Method and system for microbiome-derived diagnostics and therapeutics for neurological health issues	Pending
P03EU	EU	16780637.1				Pending
P03CN	CN	2016800282382				Pending
P04AU	AU	2016248063	PCT/US16/27371	13-April-16	Method and system for microbiome-derived diagnostics and therapeutics for autoimmune system conditions	Pending
P04EU	EU	16780678.5				Pending
P04CN	CN	2016800324864				Pending
P05AU	AU	2016250159	PCT/US16/27378	13-April-16	Method and system for microbiome-derived diagnostics and therapeutics for endocrine system conditions	Pending
P05EU	EU	16780681.9				Pending
P05CN	CN	201680033334.6				Pending
P06AU	AU	2016248120	PCT/US16/27365	13-April-16	Method and system for microbiome-derived diagnostics and therapeutics for mental health associated conditions	Pending
P06EU	EU	16780673.6				Pending
P06CN	CN	2016800334137				Pending
P07AU	AU	2016250152	PCT/US16/27360	13-April-16	Method and system for microbiome-derived diagnostics and therapeutics for locomotor system conditions	Pending
P07EU	EU	16780671.0				Pending
P07CN	CN	2016800337046				Pending
P08AU	AU	2016250104	PCT/US16/27359	13-April-16	Method and system for microbiome-derived diagnostics and therapeutics for conditions associated with microbiome functional features	Pending
P08EU	EU	16780670.2				Pending
P08CN	CN	2016800339747				Pending
P09AU	AU	2016250102	PCT/US16/27357	13-April-16	Method and system for microbiome-derived diagnostics and therapeutics for conditions associated with microbiome taxonomic features	Pending
P09EU	EU	16780669.4				Pending
P09CN	CN	2016800346793				Pending
P10AU	AU	2016250096	PCT/US16/27349	13-April-16	Method and system for microbiome-derived characterization, diagnostics and therapeutics for conditions associated with functional features	Pending
P10EU	EU	16780662.9				Pending
P10CN	CN	2016800343795				Pending

Ref. No.	Country	Application No.	PCT Application No.	PCT Filing Date	Title	Status
P11AU	AU	2016248115	PCT/US16/27341	13-April-16	Method and system for microbiome-derived characterization, diagnostics and therapeutics for cardiovascular disease conditions	Pending
P11EU	EU	16780655.3				Pending
P11CN	CN	2016800343973				Pending
P12AU	AU	2016250100	PCT/US16/27355	13-April-16	Method and system for microbiome-derived characterization, diagnostics and therapeutics for cutaneous conditions	Pending
P12EU	EU	16780667.8				Pending
P12CN	CN	2016800340246				Pending
P13AU	AU	2016280715	PCT/US16/37695	15-June-16	Method and system for sequencing in characterization of antibody binding behavior	Pending
P13EU	EU	16812371.9				Pending
P13CN	CN	2016800447099				Pending
P14AU	AU	2016288666	PCT/US16/40411	30-June-16	Method and system for diagnostic testing	Pending
P14EU	EU	16818792.0				Pending
P14CN	CN	2016800384329				Pending
P17AU	AU	2017295861	PCT/US17/42015	13-July-17	Method and system for microbial pharmacogenomics	Pending
P17EU	EU	17828501.1				Pending
P17CN	CN	201780043788.6				Pending
P17CA	CA	3030792				Pending
P17CL	CL	201900103				Pending
P17MX	MX	MX/a/2019/000625				Pending
P17BR	BR	BR 112019709				Pending
P17JP	JP	2019522621				Pending
P17SG	SG	11201900253T				Pending
P17CO	CO	NC2019/0001319				Pending
P17EA	EA	201990294				Pending
P17KR	KR	10-2019-7004007				Pending
P17IN	IN	201917004610				Pending
P17ZA	ZA	2019/00473				Pending
P19AU	AU	2017326564	PCT/US17/52098	18-Sep-17	Method and system for panel characterizations	Pending
P19EU	EU	17851735.5				Pending
P19CN	CN	201780057144.2				Pending
P19CA	CA	3,036,994				Pending
P19CL	CL	00531-2019				Pending

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P19MX	MX	MX/a/2019/003113				Pending
P19BR	BR	BR 1120190050256				Pending
P19JP	JP	2019-514295				Pending
P19SG	SG	11201901726Q				Pending
P19CO	CO	NC2019/0003713				Pending
P19EA	EA	201990520				Pending
P19KR	KR	10-2019-7010012				Pending
P19IN	IN	201917014548				Pending
P19ZA	ZA	2019/01371				Pending
P20AU	AU	2017257785		25-April17	Method and system for characterizing skin related conditions	Pending
P20EU	EU	17790288.9	PCT/US17/29470			Pending
P20CN	CN	201780030413,6				Pending
P20CA	CA	3022294				Pending
P22AU	AU	2017335766		27-Sep-17	Method and system for crispr-based library preparation and sequencing.	Pending
P22EU	EU	17857367.1				Pending
P22CN	CN	201780058889.0				Pending
P22CA	CA	3,038,661				Pending
P22CL	CL	800-2019				Pending
P22MX	MX	MX/a/2019/003482				Pending
P22BR	BR	BR 1120190058109	PCT/US17/53822			Pending
P22JP	JP	2019-516206				Pending
P22SG	SG	11201901730Q				Pending
P22CO	CO	NC2019/0004124				Pending
P22EA	EA	2019900599				Pending
P22KR	KR	10-2019-7011804				Pending
P22IN	IN	201917014946				Pending
P22ZA	ZA	2019/01372			Pending	
P23AU	AU	2016366656		9-Dec-16	Method and system for characterization of clostridium difficile associated conditions.	Pending
P23EU	EU	16873997.7	PCT/US16/065993			Pending
P23CN	CN	201680077988				Pending

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P23CA	CA	3007503				Pending
P26AU	AU	2017229488	PCT/US17/21202	7-March-17	Method and system for characterizing mouth-associated conditions	Pending
P26EU	EU	17763928.3				Pending
P26CN	CN	201780016156.0				Pending
P26CA	CA	3016891				Pending
P46 AU	AU	2016321328	PCT/US16/51149	9-Sept-16	Method and system for microbiome-derived diagnostics and therapeutics infectious disease and other health conditions associated with antibiotic usage	Pending
P46 EU	EU	16845213.4				Pending
P46 CN	CN	201680065084				Pending
P46 CA	CA	3005985				Pending
P47AU	AU	2016321349	PCT/US16/51174	9-Sept-16	Method and system for microbiome-derived diagnostics and therapeutics for conditions associated with gastrointestinal health	Pending
P47EU	EU	16845233.2				Pending
P47CN	CN	201680065000				Pending
P47CA	CA	3005987				Pending
P48 AU	AU	2016321334	PCT/US16/51156	9-Sept-16	Method and system for microbiome-derived diagnostics and therapeutics for bacterial vaginosis	Pending
P48 EU	EU	16845219.1				Pending
P48 CN	CN	201680065082				Pending
P48 CA	CA	3005963				Pending
P49 AU	AU	2016321350	PCT/US16/51175	9-Sept-16	Method and system for microbiome-derived diagnostics and therapeutics for oral health	Pending
P49 EU	EU	16845234.0				Pending
P49 CN	CN	201680065072				Pending
P49 CA	CA	3006059				Pending
P50 AU	AU	2016321348	PCT/US16/51173	9-Sept-16	Method and system for microbiome-derived diagnostics and therapeutics for conditions associated with thyroid health issues	Pending
P50 EU	EU	16845232.4				Pending
P50 CN	CN	201680065073,6				Pending
P50 CA	CA	3006057				Pending
P51AU	AU	2016321333	PCT/US16/51155	9-Sept-16	Method and system for microbiome-derived diagnostics and therapeutics for conditions associated with cerebro-craniofacial health	Pending
P51EU	EU	16845218.3				Pending
P51CN	CN	201680065085.9				Pending
P51CA	CA	3006044				Pending
P52AU	AU	2016321319	PCT/US16/51136	9-Sept-16	Method and system for microbiome-derived diagnostics and therapeutics for eczema	Pending
P52EU	EU	16845205.0				Pending
P52CN	CN	201680065086.3				Pending

Ref. No.	Country	Application No.	PCT Application No.	PCT Filing Date	Title	Status
P52CA	CA	3006036				Pending