TRADEMARK ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

ETAS ID: TM446977

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST
SEQUENCE:	2

CONVEYING PARTY DATA

Name	Formerly	Execution Date	Entity Type
MICROBIOLOGICS, INC.	FORMERLY Micro Bio Logics, Inc.	09/22/2017	Corporation: MINNESOTA

RECEIVING PARTY DATA

Name:	BMO HARRIS BANK N.A.
Street Address:	50 South Sixth Street
Internal Address:	Suite 1000
City:	Minneapolis
State/Country:	MINNESOTA
Postal Code:	55402
Entity Type:	National Banking Association: UNITED STATES

PROPERTY NUMBERS Total: 2

Property Type	Number	Word Mark
Serial Number:	77673642	VIRAPUR
Serial Number:	77673651	VIRAKIT

CORRESPONDENCE DATA

Fax Number:

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: 6124927000

Email: mbowman@fredlaw.com

Correspondent Name: Megan A. Bowman Address Line 1: 200 South Sixth Street

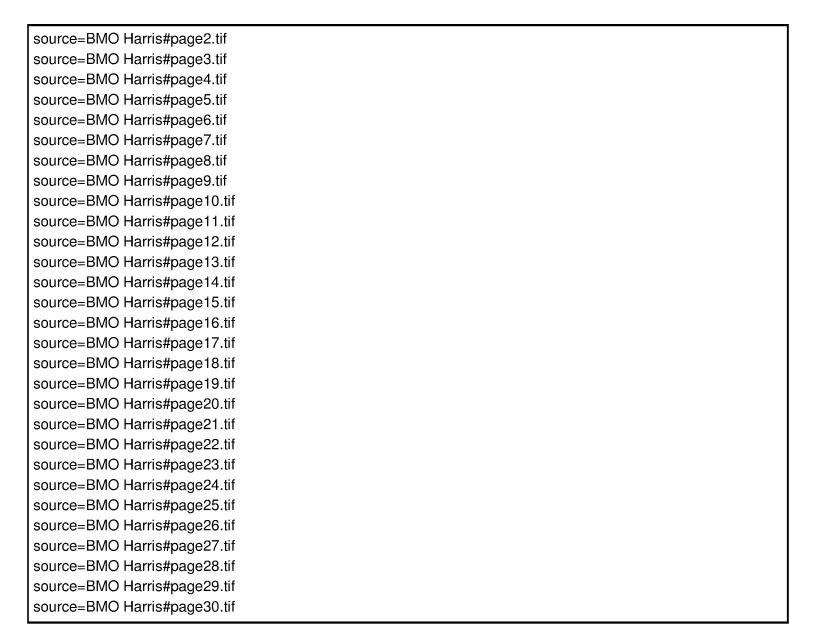
Address Line 2: Suite 4000

Address Line 4: Minneapolis, MINNESOTA 55402

NAME OF SUBMITTER:	Megan A. Bowman
SIGNATURE:	/Megan A. Bowman/
DATE SIGNED:	10/12/2017

Total Attachments: 30

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INTELLECTUAL PROPERTY SECURITY AGREEMENT SUPPLEMENT

This Intellectual Property Security Agreement Supplement, dated as of September 22, 2017, is delivered pursuant to that certain Amended and Restated Intellectual Property Security Agreement, dated as of March 16, 2017, by the undersigned and its affiliates in favor of BMO Harris Bank N.A., in its capacity as Collateral Agent (for the ratable benefit of the Senior Lenders referred to therein), (as such agreement may be amended, restated, supplemented or otherwise modified from time to time, the "IP Security Agreement"). Capitalized terms used herein without definition are used as defined in the IP Security Agreement.

Pursuant to Section 2 of the IP Security Agreement, the undersigned hereby provides notice that the undersigned has acquired the Collateral set forth on (i) Supplement to Schedule 1 of Exhibit A attached hereto and agrees that the information on Supplement to Schedule 1 of Exhibit A shall supplement Schedule 1 of Exhibit A to the IP Security Agreement and (ii) Supplement to Schedule 2 of Exhibit A attached hereto and agrees that the information on Supplement to Schedule 2 of Exhibit A shall supplement Schedule 2 of Exhibit A to the IP Security Agreement

(Signature page follows.)

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MICROBIOLOGICS, INC.

Signature Page: Intellectual Property Security Agreement Supplement

Supplement to Schedule 1 of Exhibit A

U.S. Patent Application No. 61799573, filed March 15, 2013, entitled RAPID PURIFICATION METHOD FOR LIVE INFLUENZA VIRUSES

Supplement to Schedule 2 of Exhibit A

MARK	SERIAL NO.	REGISTRATION NO.
VIRAPUR	77673642	3676246
VIRAKIT	77673651	3676248

AMENDED AND RESTATED INTELLECTUAL PROPERTY SECURITY AGREEMENT

This AMENDED AND RESTATED INTELLECTUAL PROPERTY SECURITY AGREEMENT (this "Agreement"), is dated as of March 16, 2017, by and between MICROBIOLOGICS, INC. (formerly known as Micro Bio Logics, Inc.), a Minnesota corporation whose address is 200 Cooper Avenue North, St. Cloud, MN 56303 ("Micro"), GIBSON LABORATORIES, LLC (formerly known as MBL/GLI Acquisition Company LLC), a Minnesota limited liability company whose address is 1040 Manchester Street, Lexington, KY 40508 ("Gibson"; Micro and Gibson are referred to individually and collectively, and jointly and severally as the "Borrower"; with each being individually a "Co-Borrower"), and BMO HARRIS BANK N.A. (as successor by merger to M&I Marshall & Ilsley Bank), a national banking association, whose address is 50 South Sixth Street, Suite 1000, Minneapolis, MN 55402, in its individual capacity (in such capacity, the "Bank") and in its capacity as collateral agent for the Senior Lenders (as defined below) (in such capacity, the "Collateral Agent").

RECITALS:

- A. The Borrower and Bank are parties to that certain Amended and Restated Intellectual Property Security Agreement, dated December 23, 2008 (as amended, restated, supplemented or otherwise modified from time to time prior to the date hereof, the "Original Intellectual Property Security Agreement").
- B. On the date hereof, Borrower and Bank are entering into a Credit Agreement (as it may be amended, restated, supplemented or otherwise modified from time to time, the "<u>Credit Agreement</u>") which amends and restates the Credit Agreement referred to in the Original Intellectual Property Security Agreement.
- C. The Borrower, as issuers, and the Purchasers named in the Purchaser Schedule attached to the Note Agreement (as defined below) (the "Purchasers" and, together with the holders of the Senior Secured Notes (as defined below) from time to time, the "Noteholders") are parties to that certain Note Purchase Agreement, dated as of the date hereof (as it may be amended, restated, supplemented or otherwise modified from time to time, the "Note Agreement"), pursuant to which the Purchasers are purchasing the Borrower's senior secured promissory notes in the aggregate principal amount of \$5,000,000 on the date hereof (the "Senior Secured Notes").
- D. Pursuant to that certain Intercreditor and Collateral Agency Agreement, dated as of the date hereof (the "Intercreditor Agreement"), by and among the Bank, the Collateral Agent, and the Noteholders, the Bank shall, among other things, be appointed as collateral agent in respect of the Collateral described herein for the benefit of the Senior Lenders (as defined in the Intercreditor Agreement) (the "Senior Lenders").
- E. As a condition to the Bank entering into the financial arrangements proposed by the Credit Agreement and the Purchasers entering into the financial arrangements proposed by the Note Agreement, the Borrower has executed and delivered to the Collateral Agent (for the

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ratable benefit of the Senior Lenders), that certain Amended and Restated Security Agreement, dated as of the date hereof (including all annexes, exhibits or schedules thereto, as from time to time amended, restated, supplemented or otherwise modified, the "Security Agreement").

- F. Pursuant to the terms of the Security Agreement, each Borrower has granted to the Collateral Agent (for the ratable benefit of the Senior Lenders), a security interest in all property of such Borrower, whether now owned or hereafter acquired, including without limitation, applications for patents, patents, copyrights, trademarks, trade secrets, good will, and tradenames, to secure the payment of the Obligations (as defined in the Security Agreement) (the "Obligations").
- G. As a condition to entering into the Credit Agreement and the Note Agreement, the Senior Lenders require that the Borrower executes this Agreement, which amends and restates the Original Intellectual Property Security Agreement in its entirety.

AGREEMENTS:

NOW, THEREFOREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

- 1. <u>Grant of Security Interest and Collateral</u>. To secure the payment and performance of the Obligations, each Borrower hereby grants Collateral Agent (for the ratable benefit of the Senior Lenders) a security interest (the "<u>Security Interest</u>"), with power of sale, in all of the intellectual property of such Borrower (the "<u>Collateral</u>"), including but not limited to the intellectual property described in Exhibit A and the following:
 - (a) Patents. (i) All patents and patent applications on Schedule 1 of Exhibit A hereto, (ii) all reissues, divisions, continuations, renewals, extensions, continuations-in-part thereof, (iii) all income, royalties, damages and payments now or hereafter due and/or payable with respect thereto, including but not limited to under any licenses and any damages for past, present or future infringement thereof, (iv) the right to sue for past, present or future infringements thereof, (v) all rights corresponding thereto throughout the world (all such items described in this subsection (a) referred to as "Patents"); and (vi) license agreements with any other party in connection with any Patent or such other party's patents, registered patents and patents applications, whether Borrower is a licensor or licensee under such license agreement, including but not limited to, the license agreements listed on Schedule 1 of Exhibit A, and the right upon the occurrence and during the continuance of an Event of Default (as defined below) to use the foregoing in connection with the enforcement of Collateral Agent's rights under the Security Agreement (all of the foregoing being hereinafter referred to collectively as the "Patent Licenses");
 - (b) <u>Trademarks</u>. (i) All trade names, trademarks, service marks and any registrations thereof and applications therefore listed on Schedule 2 of Exhibit A hereto, (ii) any renewals thereof, (iii) all income, royalties, damages and payments now or hereafter due and/or payable with respect thereto, including but not limited to under any

licenses and any damages for past, present or future infringement thereof, (iv) the right to sue for past, present or future infringements thereof, (v) all rights corresponding thereto throughout the world, (vi) all goodwill of Borrower's business connected with and symbolized by the foregoing (all such items described in this subsection (b) referred to as "Trademarks"); and (vii) license agreements with any other party in connection with any Trademarks or such other party's trademarks, registered trademarks and trademark applications, trade names, service marks, registered service marks and service mark applications, whether Borrower is a licensor or licensee under such license agreement, including but not limited to, the license agreements listed on Schedule 3 of Exhibit A, and the right upon the occurrence and during the continuance of an Event of Default (as defined below) to use the foregoing in connection with the enforcement of Collateral Agent's rights under the Security Agreement (all of the foregoing being hereinafter referred to collectively as the "Trademark Licenses");

- (c) <u>Copyrights</u>. (i) All copyrights and registrations thereof listed on Schedule 4 of Exhibit A hereto, (ii) any renewals thereof, (iii) all income, royalties, damages and payments now or hereafter due and/or payable with respect thereto, including but not limited to under any licenses and any damages for past, present or future infringement thereof, (iv) the right to sue for past, present or future infringements thereof, (v) all rights corresponding thereto throughout the world (all such items described in this subsection (c) referred to as "<u>Copyrights</u>"); and (vi) license agreements with any other party in connection with any Copyrights or such other party's copyrights, registered copyrights and copyright applications, whether Borrower is a licensor or licensee under such license agreement, including but not limited to, the license agreements listed on Schedule 4 of Exhibit A, and the right upon the occurrence and during the continuance of an Event of Default (as defined below) to use the foregoing in connection with the enforcement of Collateral Agent's rights under the Security Agreement (all of the foregoing being hereinafter referred to collectively as the "<u>Copyright Licenses</u>");
- (d) <u>Miscellaneous</u>. All inventions, discoveries, ideas, technology, know-how, trade secrets, processes, formulas, models, prototypes, drawings and designs, computer software programs, and documents, computer disks, source codes, object codes, lab books or other materials related thereto; and
 - (e) Proceeds. All proceeds of any of the foregoing.
- 2. <u>Representations, Warranties and Agreements</u>. Borrower represents, warrants and agrees that:
 - (a) The Patents, Patent Licenses, Trademarks, Trademark Licenses and Copyrights, and Copyright Licenses listed on Schedules 1, 2, 3 and 4, respectively, constitute all of the patents, trademarks, licenses, copyrights and applications and registrations therefore now owned by Borrower. If, before the Obligations shall have been satisfied in full in cash and all of the Senior Lenders' commitments to lend to Borrower shall have expired or been terminated, Borrower shall (i) obtain rights to any new patentable inventions, registrable trademarks, trademark registrations, trade names or

registered copyrights, (ii) become entitled to the benefit of any patent, trademark, copyright or registration thereof, or patent for any reissue, division, continuation, renewal, extension or continuation-in-part of any Patent or any improvement on any Patent, or (iii) become a party to or subject to any patent license, copyright license, or trademark license, then the provisions of Section 1 above shall automatically apply thereto (and Borrower hereby grants Collateral Agent (for the ratable benefit of the Senior Lenders) a security interest therein) and Borrower shall give to Collateral Agent and each Senior Lender prompt written notice thereof. Borrower hereby authorizes Collateral Agent to modify this Agreement by amending Schedule 1, 2, 3 and/or 4, as applicable, to include any future patents, patent applications, trademarks, trademark registrations, trademark applications, trade names, licenses and copyright registrations which are Patents, Patent Licenses, Trademarks, Trademark Licenses, Copyrights or Copyright Licenses, as applicable, under Section 1 above.

- (b) Borrower has (or will have at the time Borrower acquires rights in Collateral hereafter arising) absolute title to each item of Collateral free and clear of all security interests, liens and encumbrances, except the Security Interest and Permitted Liens (as defined in the Security Agreement) (the "Permitted Liens"). Borrower will keep all Collateral free and clear of all security interests, liens and encumbrances and will defend the Collateral against all claims or demands of all persons other than Collateral Agent (and the holders of Permitted Liens).
- Lenders' commitments to lend pursuant to the Credit Agreement and the Note Agreement shall have been terminated or expired and all Letters of Credit shall have expired or the liability of the Bank thereon shall have been discharged, Borrower will not, without prior written consent of the Required Senior Lenders (as defined in the Intercreditor Agreement) (the "Required Senior Lenders"), (i) sell, or grant any exclusive license in, any of the Collateral, or (ii) enter into any agreement which is inconsistent with Borrower's obligations or the rights of Collateral Agent or any Senior Lender under this Agreement. Borrower further agrees that it will not take any action, or permit any action to be taken by others subject to its control, including licensees, or fail to take any action, which would affect the validity of the Collateral or enforcement of Collateral Agent's security interest in or other rights in the Collateral (for the ratable benefit of the Senior Lenders) or could reasonably be expected to materially detract from the value of the Collateral.
- (d) Borrower will use commercially reasonable efforts to prosecute diligently any patent application that is part of the Patents, any trademark application that is part of the Trademarks, and any copyright registration that is part of the Copyrights, pending as of the date hereof or thereafter until the Obligations shall have been satisfied in full in cash, all of Senior Lenders' commitments to lend to Borrower shall have been terminated or expired and all Letters of Credit shall have expired or the liability of the Bank thereon shall have been discharged. Borrower will file and prosecute applications or registrations on unpatented but patentable inventions, on trademarks and on copyrightable works, as recommended by reputable legal counsel. Borrower will preserve and maintain all rights

in patent applications and patents that are part of the Patents, in trademark applications, trademarks, and trademark registrations that are part of the Trademarks, and in copyrightable works and copyright registrations that are part of the Copyrights. Any expenses incurred in connection with such registrations or applications shall be borne by Borrower.

- (e) Borrower shall not abandon any right to file a patent application or trademark application, or any pending patent application, trademark application, patent, trademark or copyright without the consent of the Required Senior Lenders.
- (f) Borrower will at all reasonable times, and following reasonable advance notice if no Event of Default then exists, permit Collateral Agent or its representatives to examine or inspect any Collateral, wherever located, and to examine, inspect and copy Borrower's books and records pertaining to the Collateral and its business and financial condition.
- (g) Borrower will keep accurate and complete records pertaining to the Collateral and pertaining to Borrower's business and financial condition and submit to Collateral Agent or any Senior Lender such periodic reports concerning the Collateral and Borrower's business and financial condition as Collateral Agent or such Senior Lender may from time to time reasonably request.
- (h) Borrower will pay when due or reimburse Collateral Agent and each applicable Senior Lender on demand for all costs of collection of any of the Obligations and all other out-of-pocket expenses (including in each case all reasonable attorneys' fees) incurred by Collateral Agent or such Senior Lender in connection with the creation, perfection, satisfaction, protection, defense or enforcement of the Security Interest or the creation, continuance, protection, defense or enforcement of this Agreement or of the Obligations, including expenses incurred in any litigation or bankruptcy or insolvency proceedings.
- (i) Borrower will execute, deliver or endorse any and all instruments, documents, assignments, security agreements and other agreements and writings which Collateral Agent or any Senior Lender may at any time reasonably request in order to secure, protect, perfect or enforce the Security Interest and the rights of Collateral Agent and the Senior Lenders under this Agreement.
- (j) Borrower will not amend or otherwise modify any Copyright License, Patent Licenses, or Trademark License without the prior written consent of the Required Senior Lenders.
- 3. Royalties. Neither the Security Interest granted herein, nor the exercise by Collateral Agent of any of its rights under this Agreement, shall (a) impose on Collateral Agent any liability to Borrower for royalties or other similar charges, or (b) be limited geographically.

- 4. <u>Events of Default</u>. The occurrence and continuance of any Event of Default, as defined in the Security Agreement, shall constitute an Event of Default hereunder.
- 5. Remedies upon Event of Default; Power of Attorney. At any time after the occurrence and during the continuance of an Event of Default, Collateral Agent may exercise those remedies set forth in the Security Agreement. All rights and remedies of Collateral Agent with respect to the Patents, Patent Licenses, Trademarks, Trademark Licenses, Copyrights, Copyright Licenses and other Collateral, whether established hereby, by any other agreements or by law, shall be cumulative and may be exercised singularly or concurrently. Upon the occurrence and during the continuance of an Event of Default, Borrower hereby irrevocably appoints Collateral Agent as Borrower's attorney-in-fact, with full authority in the place and stead of Borrower and in the name of Borrower or otherwise to carry out the acts described below. Subject to the terms of the Security Agreement, upon the occurrence and during the continuance of an Event of Default and the giving by Collateral Agent of written notice to Borrower of Collateral Agent's intention to enforce its rights and claims against Borrower, Borrower hereby authorizes Collateral Agent to, in its sole discretion (i) endorse Borrower's name on all applications, documents, papers and instruments deemed necessary or desirable by Collateral Agent or any Senior Lender in the use of the Patents, Patent Licenses, Trademarks, Trademark Licenses, Copyrights, Copyright Licenses and/or other Collateral, (ii) take any other actions with respect to the Patents, Patent Licenses, Trademarks, Trademark Licenses, Copyrights, Copyright Licenses and/or other Collateral as Collateral Agent or any Senior Lender deems is in the best interest of the Senior Lenders, (iii) grant or issue any exclusive or nonexclusive license under the Patents, Patent Licenses, Trademarks, Trademark Licenses, Copyrights, Copyright Licenses to anyone on commercially reasonable terms, and (iv) assign, pledge, convey or otherwise transfer title in or dispose of the Patents, Patent Licenses, Trademarks, Trademark Licenses, Copyrights, Copyright Licenses and/or other Collateral to anyone on commercially reasonable terms. Collateral Agent shall take no action pursuant to subsection (i), (ii), (iii) or (iv) of this Section 5 with respect to Trademarks and Trademark Licenses without taking like action with respect to the entire goodwill of Borrower's business and related assets connected with the use of, and symbolized by, such Trademarks or Trademark Licenses Borrower hereby ratifies all that such attorney-in-fact shall lawfully do or cause to be done by virtue hereof. This power of attorney is coupled with an interest and shall be irrevocable until this Agreement shall have been terminated. Borrower acknowledges and agrees that this Agreement is not intended to limit or restrict in any way the rights and remedies of Collateral Agent under the Security Agreement, but rather is intended to facilitate the exercise of such rights and remedies. Collateral Agent shall have, in addition to all other rights and remedies given it by the terms of this Agreement, all rights and remedies allowed by law and the rights and remedies of a secured party under the Uniform Commercial Code as enacted in any jurisdiction in which the Patents, Trademarks or Copyrights and/or other Collateral may be located or deemed located.
- 6. Collateral Agent's Right to Sue. From and after the occurrence of any Event of Default, Collateral Agent shall have the right, but shall in no way be obligated, to bring suit in its own name to enforce the Patents, Patent Licenses, Trademarks, Trademark Licenses, Copyrights, and Copyright Licenses, and, if Collateral Agent shall commence any such suit, Borrower shall, at the request of Collateral Agent or any Senior Lender, do any and all lawful acts and execute

any and all proper documents required by Collateral Agent or such Senior Lender in aid of such enforcement and Borrower shall indemnify and shall, upon demand, promptly reimburse Collateral Agent for all costs and expenses incurred by Collateral Agent in the exercise of its rights under this Section 6.

7. Miscellaneous. This Agreement can be waived, modified, amended, terminated or discharged, and the Security Interest can be released, only explicitly in a writing signed by Collateral Agent, pursuant to Section 2(e) of the Intercreditor Agreement, and by Borrower. A waiver signed by Collateral Agent shall be effective only in the specific instance and for the specific purpose given. Mere delay or failure to act shall not preclude the exercise or enforcement of Collateral Agent's rights or remedies. All rights and remedies of Collateral Agent shall be cumulative and may be exercised singularly or concurrently, at Collateral Agent's option, and the exercise or enforcement of any one such right or remedy shall neither be a condition to nor bar the exercise or enforcement of any other. All notices to be given to Borrower shall be deemed sufficiently given if delivered or mailed by registered or certified mail, postage prepaid, to Borrower at its address set forth in the Security Agreement or at the most recent address shown on Collateral Agent's records. Collateral Agent's duty of care with respect to Collateral in its possession (as imposed by law) shall be deemed fulfilled if Collateral Agent exercises reasonable care in physically safekeeping such Collateral or, in the case of Collateral in the custody or possession of a bailee or other third person, exercises reasonable care in the selection of the bailee or other third person, and Collateral Agent need not otherwise preserve, protect, insure or care for any Collateral. Collateral Agent shall not be obligated to preserve any rights Borrower may have against prior parties, to realize on the Collateral at all or in any particular manner or order, or to apply any cash proceeds of Collateral in any particular order of application. This Agreement shall be binding upon and inure to the benefit of Borrower and Collateral Agent and their respective representatives, successors and assigns (provided that neither Co-Borrower may assign, transfer or delegate any of its rights or obligations under this Agreement without the prior written consent of each Senior Lender and, unless so consented to, each such attempted assignment, transfer or delegation by a Co-Borrower shall be null and void and inure to the benefit of the Senior Lenders and their respective representatives, successors and assigns and shall take effect when signed by Borrower and delivered to Collateral Agent, and Borrower waives notice of the acceptance of this Agreement by Collateral Agent and the Senior Lenders. Collateral Agent may execute this Agreement if appropriate for the purpose of filing, but the failure of Collateral Agent to execute this Agreement shall not affect or impair the validity or effectiveness of this Agreement. A carbon, photographic or other reproduction of this Agreement or of any financing statement or other recording document signed by the Borrower shall have the same force and effect as the original for all purposes of a financing statement or other recording document. Borrower will execute, from time to time, and authorizes Collateral Agent to execute from time to time as Borrower's attorney-in-fact, such financing statements, assignments, and other documents covering the Collateral, including Proceeds, as Collateral Agent or any Senior Lender may reasonably request in order to create, evidence, perfect, maintain or continue its security interest in the Collateral (including additional Collateral acquired by Borrower after the date hereof), and Borrower will pay the cost of filing the same in all public offices in which Collateral Agent or any Senior Lender may deem filing to be appropriate and will notify Collateral Agent promptly upon acquiring any additional Collateral that may require an additional filing. This Agreement may be executed in any number of

counterparts, all of which taken together shall constitute one and the same instrument, and either of the parties hereto may execute this Agreement by signing any such counterpart. Whenever possible, each provision of this Agreement and any other statement, instrument or transaction contemplated hereby or relating hereto shall be interpreted in such manner as to be effective and valid under such applicable law, but, if any provision of this Agreement or any other statement, instrument or transaction contemplated hereby or relating hereto shall be held to be prohibited or invalid under such applicable law, such provision shall be ineffective only to the extent of such prohibition or invalidity, without invalidating the remainder of such provision or the remaining provisions of this Agreement or any other statement, instrument or transaction contemplated hereby or relating hereto. All representations and warranties contained in this Agreement shall survive the execution, delivery and performance of this Agreement and the creation and payment of the Obligations. Captions in this Agreement are for reference and convenience only and shall not affect the interpretation or meaning of any provision of this Agreement.

- 8. Governing Law. The parties to this Agreement have contracted for Minnesota law to govern this Agreement and it is accordingly agreed that this Agreement is made pursuant to and shall be construed and governed by the laws of the State of Minnesota without regard to the principles of conflicts of law.
- 9. Joint and Several Liability. BY SIGNING THIS AGREEMENT, EACH BORROWER AGREES THAT THE COLLATERAL PLEDGED BY IT SECURES THE PAYMENT OF ALL OBLIGATIONS, AND THAT THE COLLATERAL AGENT CAN ENFORCE ITS RIGHTS AND REMEDIES HEREUNDER AGAINST ANY ONE OR MORE OF THE BORROWERS, IN THE COLLATERAL AGENT'S SOLE AND UNLIMITED DISCRETION. Without in any way limiting the generality of the foregoing, each Co-Borrower acknowledges and agrees that the Collateral Agent may at any time and from time to time, without the consent of, or notice to, such Co-Borrower, without incurring responsibility to such Co-Borrower, and without affecting, impairing or releasing any of the obligations of such Co-Borrower hereunder:
 - (a) sell, exchange, surrender, realize upon, release (with or without consideration) or otherwise deal with in any manner and in any order any property of the other Co-Borrower securing the Obligations;
 - (b) exercise or refrain from exercising any rights against the other Co-Borrower, or otherwise act or refrain from acting;
 - (c) fail to set off and/or release, in whole or in part, any balance of any account or any credit on its books in favor of the other Co-Borrower, or of any other person, and extend credit in any manner whatsoever to the other Co-Borrower, and generally deal with the other Co-Borrower and any of its property in any manner as the Collateral Agent may see fit; and/or
 - (d) consent to or waive any breach of, or any act, omission or default under, this Agreement or any other agreement, by the other Co-Borrower.

- 10. No Release. Until all of the Obligations have been paid in full, no obligations of a Co-Borrowers hereunder shall be released, in whole or in part, by any action or thing (other than irrevocable payment in full) which might, but for this provision of this Agreement, be deemed a legal or equitable discharge of a surety or guarantor, or by reason of any waiver, extension, modification, forbearance or delay or other act or omission of the Collateral Agent or its failure to proceed promptly or otherwise, or by reason of any action taken or omitted by the Collateral Agent whether or not such action or failure to act varies or increases the risk of, or affects the rights or remedies of, such Co-Borrower, nor shall any release of any security for any of the Obligations by operation of law or by the action of any third party affect in any way the obligations of such Co-Borrower hereunder, and each Co-Borrower hereby expressly waives and surrenders any defense to its liability hereunder based upon any of the foregoing acts, omissions, things, agreements, or waivers of any of them.
- Actions Not Required. Each Co-Borrower hereby waives any and all right to 11. cause a marshalling of any assets or any other action by any court or other governmental body with respect thereto insofar as the rights of the Collateral Agent hereunder are concerned or to cause the Collateral Agent to proceed against any security for the Obligations or any other recourse which the Collateral Agent may have with respect thereto, and further waives any and all requirements that the Collateral Agent institute any action or proceeding at law or in equity against the other Co-Borrower or anyone else, or with respect to this Agreement, or any of the Collateral, as a condition precedent to making demand on, or bringing an action or obtaining and/or enforcing a judgment against, such Co-Borrower. Each Co-Borrower further waives any requirement that the Collateral Agent seek performance by the other Co-Borrower or any other person, of any obligation under this Agreement or any other agreement as a condition precedent to making a demand on, or bringing an action or obtaining and/or enforcing a judgment against, such Co-Borrower. Neither Co-Borrower shall have any right of setoff against the Collateral Agent with respect to any of its obligations hereunder. Any remedy or right hereby granted which shall be found to be unenforceable as to any person or under any circumstance, for any reason, shall in no way limit or prevent the enforcement of such remedy or right as to any other person or circumstance, nor shall such unenforceability limit or prevent enforcement of any other remedy or right hereby granted.
- 12. A Co-Borrower's Bankruptcy. Each Co-Borrower expressly agrees that its liability and obligations under this Agreement shall not in any way be affected by the institution by or against the other Co-Borrower or any other person or entity of any bankruptcy, reorganization, arrangement, insolvency or liquidation proceedings, or any other similar proceedings for relief under any bankruptcy law or similar law for the relief of debtors, or any action taken or not taken by the Collateral Agent in connection therewith, and that any discharge of a Co-Borrower pursuant to any such bankruptcy or similar law or other laws shall not discharge or otherwise affect in any way the obligations of the other Co-Borrower under this Agreement or with respect to the Obligations, and that upon or at any time after the institution of any of the above actions, at the Collateral Agent's sole discretion, the Co-Borrowers' joint and several obligations shall be enforceable against the Co-Borrower that is not itself the subject of such proceedings. Each Co-Borrower expressly waives any right to argue that the Collateral Agent's enforcement of any remedies against that Co-Borrower is stayed by reason of the pendency of any such proceedings against the other Co-Borrower.

- 13. Consent to Jurisdiction. BORROWER SUBMITS AND CONSENTS TO PERSONAL JURISDICTION OF THE COURTS OF THE STATE OF MINNESOTA AND COURTS OF THE UNITED STATES OF AMERICA SITTING IN MINNESOTA FOR THE ENFORCEMENT OF THIS AGREEMENT AND WAIVES ANY AND ALL PERSONAL RIGHTS UNDER THE LAWS OF ANY STATE OR THE UNITED STATES OF AMERICA TO OBJECT TO JURISDICTION IN THE STATE OF MINNESOTA. AT THE ELECTION OF COLLATERAL AGENT, LITIGATION MAY BE COMMENCED IN ANY STATE COURT OF GENERAL JURISDICTION FOR THE STATE OF MINNESOTA OR ANY UNITED STATES DISTRICT COURT LOCATED IN MINNESOTA. NOTHING CONTAINED HEREIN SHALL PREVENT COLLATERAL AGENT FROM BRINGING ANY ACTION AGAINST BORROWER OR EXERCISING ANY RIGHTS AGAINST ANY SECURITY GIVEN TO COLLATERAL AGENT, OR AGAINST BORROWER PERSONALLY, OR AGAINST ANY PROPERTY OF BORROWER, WITHIN ANY OTHER STATE. COMMENCEMENT OF ANY SUCH ACTION OR PROCEEDING IN ANY OTHER STATE SHALL NOT CONSTITUTE A WAIVER OF CONSENT TO JURISDICTION OR OF THE SUBMISSION MADE BY BORROWER TO PERSONAL JURISDICTION WITHIN THE STATE OF MINNESOTA.
- 14. Waiver. BORROWER WAIVES TRIAL BY JURY IN ANY JUDICIAL PROCEEDING TO WHICH BORROWER IS INVOLVED DIRECTLY OR INDIRECTLY AND ANY MATTER IN ANY WAY ARISING OUT OF, RELATED TO, OR CONNECTED WITH THIS AGREEMENT OR THE RELATIONSHIP ESTABLISHED HEREUNDER, AND WHETHER ARISING OR ASSERTED BEFORE OR AFTER THE DATE OF THIS AGREEMENT.
- 15. Assignment of Security Interest. Pursuant to the terms of the Intercreditor Agreement, the Bank hereby assigns all rights under, and the security interest granted to it by Borrower under, the Original Intellectual Property Security Agreement to the Collateral Agent (for the ratable benefit of the Senior Lenders), in accordance with the terms of this Agreement. Debtor hereby acknowledges and agrees to such assignment.
- Original Intellectual Property Security Agreement in its entirety, and is issued in substitution for and replacement of, but not in novation of the Original Intellectual Property Security Agreement. It is intended that the Security Interest shall be entitled to all of the priorities existing under the Original Intellectual Property Security Agreement as of the date prior to the date that this Agreement was executed and delivered with respect to the Collateral then subject to the Original Intellectual Property Security Agreement. The security interests and other rights pursuant to the Original Intellectual Property Security Agreement are hereby renewed and extended to secure payment of the Obligations.

(The signature page follows.)

THE PARTIES have executed this Amended and Restated Intellectual Property Security Agreement as of the day and year first above written.

MICROBIOLOGICS, INC.

By: Stell
Name: Steven A. Mansket
Its: Chief Financial Officer
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GIBSON LABORATORIES LLC
St.MO_
Ву:
Name: Steven A. Manske
Its: Chief Financial Officer/Treasurer
BMO HARRIS BANK N.A. (in its capacity as Bank)
Ву:
Name: Daniel Schrader
Its: Vice President
BMO HARRIS BANK N.A. (its capacity as collateral agent for the ratable benefit of the Senior Lenders)
$\aleph_{\mathbf{v}}$

[SIGNATURE PAGE TO AMENDED AND RESTATED INTELLECTUAL PROPERTY SECURITY AGREEMENT]

Name: Daniel Schrader Its: Vice President

THE PARTIES have executed this Amended and Restated Intellectual Property Security Agreement as of the day and year first above written.

MICROBIOLOGICS, INC.

Ву;		and production of the second of the		
Name: Steven A.	Manske		: ::::	
Its: Chief Financi	ial Officer			

GIBSON LABORATORIES LLC

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BMO HARRIS BANK N.A. (in its capacity as Bank)

Name: Daniel Schrader
Its: Vice President

BMO HARRIS BANK N.A. (its capacity as collateral agent for the ratable benefit of the Senior Lenders)

Name: Daniel Schrader
Its: Vice President

[SIGNATURE PAGE TO AMENDED AND RESTATED INTELLECTUAL PROPERTY SECURITY AGREEMENT]

EXHIBIT A

Collateral

SCHEDULE 1

Patents and Patent Applications

Micro

Micro acquired rights to the following Patents when it acquired the assets of Phthisis Diagnostics which it intends to abandon.

-	Title	Issued Patent or Patent Application #	Date Filed U.S. Patents	Application Number	Inventor(s)
QUEST.	MOLECULAR STANDARDS FOR MICROBIAL	8,494,785	August 27, 2010		Crystal Icenhour Brian V. Loyal
2	PATHOGENS MOLECULAR STANDARDS FOR MICROBIAL PATHOGENS	Pending	June 28, 2013	13/930,486	Tyler Hartley Crystal Icenhour Brian V. Loyal Tyler
3	NUCLEIC ACID EXTRACTION FROM COMPLEX MATRICES	8574890	February 16, 2011		Hartlev Crystal Icenhour Brian V. Loyal Linh Nguyen
4	MICROSPORIDIA DETECTION SYSTEM AND METHOD	Pending	May 21, 2012	13/476,355	Crystal Icenhour
5	MICROSPORIDIA DETECTION SYSTEM AND METHOD	Pending	May 18, 2012	PCT/US2012 /038629	Crystal Icenhour
6	QUALITATIVE DIAGNOSTIC TEST FOR DETECTION OF INFECTIVE PARASITES	Pending	March 8, 2013		Crystal Icenhour Linh Nguyen

- 1. Cecil Gibson's co-inventor interest in the invention described in U.S. Patent Publication No. 20060177426 and Series Code/Serial No. 11/347334 entitled "Method for preserving lyophilized microorganisms for transport, storage and recovery of viable microorganisms", which patent application was filed with the United States Patent and Trademark Office on February 3, 2006 by Gibson and co-inventor Gerald Chrisope.
- 2. U.S. Patent Application, Series Code/Serial No. 11/542063, Publication No. 20070105186 filed October 3, 2006, entitled "Method for preserving microbial cells".

Patent I	licenses
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	ANALAGORIA DA DA SANTA DA SANT
Micro	
None.	
<u>Gibson</u>	•
None.	

SCHEDULE 2

Trademarks and Trademark Applications

Micro

s, United States 85/095,5 Jul 29, 3,975,983 1 Clinical diagnostic general	of America 59 2010 purpose reagents, namely, a box containing reagents for processing samples to isolate nucleic acids from human tissues and fluids	S Reagents for medical use, namely, reagents for isolating nucleic acids from human tissues and fluids	S, United States 77/886,0 Dec 4, 3.912,198 1 Diagnostic reagents and kits for in vitro use consisting primarily of lyophilized microorganisms, not for medical or veterinary use	United States 86/182,8 Feb 3, 2014 4,721,330 1 of America 20	United States 86/036,2 Aug 13, 4,796,963 1 of America 61 2013	laboratory use, diagnostic reagents and kits for in- vitro use, research reagents for industrial use, namely, for food testing, water testing and	pharmaceutical testing, test particles for bio- detection systems, biological analogues and	microscopic carrier beads with chemically attached DNA fragments for use in testing the operation of equipment used for analyzing air for the presence
	of America 59		S	S				BETANIC
Microbiologics, U			Microbiologics, U	Microbiologics, U Inc. o	Gibson Laboratories ULC			
E-SPHERE			EZ-ACCU SHOT	EZ-HYDRO SHOT	GIBSON BIOSCIENCE			

of harmful biological substances Diagnostic reagents containing lyophilized microorganisms, and reagents containing lyophilized microorganisms all for in-vitro use and for use in biochemistry, clinical chemistry and microbiology, culture media for cultivating microorganism cells, culture media for use in for use in medical laboratories; diagnostic reagents and contrast media for medical use	Clinical diagnostic general purpose reagents, namely, a box containing reagents to be used as positive controls, standard curve controls and/or internal controls Reagents for medical use, namely, reagents to be used as positive controls, standard curve controls and/or internal controls	Viable microorganisms, mactivated microorganisms, and nucleic acids of microorganisms, and nucleic acids of microorganisms for quality control of laboratory testing to detect contaminants, microorganisms, namely, bacteria, fungi, viruses, and parasites for quality control of laboratory testing to detect contaminants.
	γ1 LΓ1	
	4,161,680	5.082,578
	Apr 5, 2010	Feb 21, 2014
	85/006,3 41	86/199,8
	United States of America	United States of America
	Microbiologics, Inc.	Microbiologics,
	G-SPHERE	

On-line journals, namely, blogs featuring content in the field of science and medicine	Preserved lyaphilized microorganism cells used with inoculating swab devices for clinical and medical laboratory use	Preserved microorganism preparations for clinical or industrial laboratory quality control use	Diagnostic reagents and kits for in vitro use consisting primarily of tyophilized microorganisms, not for medical or veterinary use. Diagnostic reagents and kits for in vitro use consisting primarily of tyophilized microorganisms for medical and veterinary purposes.	Diagnostic reagents and kits for in vitro use containing lyophilized microorganisms	Diagnostic reagents for in vitro use in biochemistry, clinical chemistry, and microbiology	Diagnostic preparations for scientific or research use; reagents for scientific or medical research use; diagnostic reagents for clinical or medical laboratory use; diagnostic reagents for invitro use in biochemistry, clinical chemistry and microbiology; research reagents for in vitro use in biochemistry, clinical chemistry and microbiology; research reagents for industrial use, namely, for food testing, water testing and pharmaceutical testing; test particles for bio-detection systems, biological analogues and microscopic carrier beads with chemically attached DNA fragments for use in testing the operation of equipment used for analyzing air for the presence of harmful biological substances; diagnostic reagents containing lyophilized microorganisms, and reagents
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4,135,087	2,964,090	3,996,813	3,902,026	1,398,184	3,566,491	4,521,026
Aug 30, 2011	Apr 26, 2004	Nov 15, 2010	Mar 10, 2010	Dec 18, 1984	Jun 26. 2007	Aug 19, 2013
85/410,5 95	78/404,7 44	85/176,7 56	77/955,8 29	73/514,3 07	77/215,3 45	86/041,6 28
United States of America	United States of America	United States of America	United States of America	United States of America	United States of America	United States of America
Microbiologics, Inc.	Gibson Laboratories LLC	Microbiologics, Inc.	Microbiologics, Inc.	Microbiologics, Inc.	Gibson Laboratories LLC	Microbiologics,
IN THE SPHERE	NOCU-SWABS	KWIK-STIK	MB-ELITE	LYFO DISK	MICROBIAL JUMPSTART	MICROBIOLOGICS

chemistry and microbiology	5 Culture media for cultivating microorganism cells; culture media for use in medical laboratories; diagnostic reagents and contrast media for medical use	2007 2007 Test reagents for the detection of infectious pathogens in environmental and water samples Test reagents for the detection of infectious diseases in human clinical and veternarian specimens for medical use	May 8, 4,454,633 5 Reagents for medical use, namely, reagents for detecting infectious diseases in human clinical specimens; clinical diagnostic devices, namely, a box containing reagents for collecting, processing, and/or detecting infectious diseases in human clinical specimens	Apr 5, 2010 3,971,713 5 Reagents for medical use	Jun 26, 3,388,337 5 Diagnostic preparations for clinical or medical
		01	85/926,5 30	85/006,3 55	77/215,6
		United States of	United States of America	United States of America	United States of
		Microbiologics, Inc.	Microbiologics, Inc.	Microbiologics, Inc.	Gibson
		PHTHISIS DIAGNOSTICS and Design BRITHISSS	R-SPHERE	SIMPLY MOLECULAR	TRI-VALENT

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Diagnostic preparations for scientific or research use; reagents for scientific or medical research use; diagnostic reagents for clinical or medical laboratory use; diagnostic reagents and kits for in-vitro use; research reagents for industrial use, namely, for food testing, water testing and pharmaceutical testing; test particles for bio-detection systems, biological analogues and microscopic carrier beads with chemically attached DNA fragments for use in testing the operation of equipment used for analyzing air for the presence of harmful biological substances	Diagnostic reagents containing lyophilized microorganisms, and reagents containing lyophilized microorganisms all for in-vitro use and for use in biochemistry, clinical chemistry and microbiology; culture media for cultivating microorganism cells, culture media for use in for use in medical laboratories; diagnostic reagents and contrast media for medical use	Clinical diagnostic general purpose reagents, namely, a box containing reagents to be used as positive controls, standard curve controls and/or internal controls	Reagents for medical use, namely, reagents to be used as positive controls, standard curve controls and/or internal controls	Viable microorganisms, mactivated microorganisms, and mirrleit acids of microorganisms for quality control of	laboratory testing to detect contaminants; microorganisms, namely, bacteria, fungi, viruses, and	parasites for quality control of laboratory testing to detect contaminants	On-line journals, namely, blogs featuring content in the	neid of science and medicine	
No.	មា		ស	(**			41		
4,796,363		4,161,680		5,082,578			4,135,087	Laborat basas de roda proprie de como mesera	Continued
Aug 13, 2013		Apr 5, 2010		Feb 21,			Aug 30,	7707	
86/036,261		85/006,341		86/199,844			85/410,595		
United States of America		United States of America		United States of	America		United	States of America	
GIBSON BIOSCIENCE BIOSCIENCE		G-SPHERE		HELIX ELITE			IN THE SPHERE		

Preserved tyophilized microorganism cells used with inoculating swab devices for clinical and medical laboratory use	Preserved microorganism preparations for clinical or industrial laboratory quality control use	Diagnostic reagents and kits for in vitro use consisting primarily of lyophilized microorganisms, not for medical or veterinary use Diagnostic reagents and kits for in vitro use consisting primarily of lyophilized microorganisms for medical and veterinary purposes.	Diagnostic reagents and kits for in vitro use containing lyophilized microorganisms	Diagnostic reagents for in vitro use in biochemistry, clinical chemistry and microbiology
2	()	H State of the sta	रन्त	T
2,964,090	3,996,813	3,902,026	1,398,184	3,566,491
Apr 20, 2004	Nov 15, 2010	Mar 10, 2010	Dec 18, 1984	77/215,345 Jun 26, 2007 3,566,491
78/404,744 Apr 20,	85/176,756	77/955,829	73/514,307	77/215,345
United States of America	United States of America	United States of America	United States of America	United States of America
INOCU-SWABS	KWIK-STIK	LAB-ELITE	LYFO DISK	MICROBIAL JUMPSTART

Continued.

Diagnostic preparations for scientific or research use; reagents for scientific or medical research use; diagnostic reagents for clinical or medical laboratory use; diagnostic reagents for clinical or medical laboratory use; diagnostic reagents for scientific use; diagnostic reagents for in vitro use in biochemistry, clinical chemistry and microbiology; research reagents for industrial use, namely, for food testing, water testing and pharmaceutical testing; test particles for bio-detection systems, biological analogues and microscopic carrier beads with chemically attached DNA fragments for use in testing the operation of equipment used for analyzing air for the presence of harmful biological substances; diagnostic reagents containing lyophilized microorganisms, and reagents containing lyophilized microorganisms all for in-vitro use and for use in biochemistry, clinical chemistry and microbiology. Culture media for cultivating microorganism cells; culture media for use in medical laboratories; diagnostic reagents	and contrast media for medical use Test reagents for the detection of infectious pathogens in	environmental and water samples	Test reagents for the detection of infectious diseases in human clinical and veterinarian specimens for medical use	
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4,521,026	3,970,865			
Aug 19, 2013	Jul 25, 2007			NAME OF THE PROPERTY OF THE PR
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United States of America	United	States of America		40.000
MICROBIOLOGICS	PHTHISIS	DIAGNOSTICS and Design	Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signatura Signat	Landander and a second a second and a second a second and

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R-SPHERE	United States of America	85/926,530	85/926,530 May 8, 2013	4,454,633	ហ	Reagents for medical use, namely, reagents for detecting infectious diseases in human clinical specimens; clinical diagnostic devices, namely, a box containing reagents for collecting, processing, and/or detecting infectious diseases in human clinical specimens
SIMPLY. MOLECULAR	United States of America	85/006,355	Apr 5, 2010	3,971,713	io.	Reagents for medical use
TRI-VALENT	United States of America	77/215,603	Jun 26, 2007	3,388,337	ક	Diagnostic preparations for clinical or medical laboratory use
UV BIOTAG	United States of America	87/062,467	Jun 7, 2016		ę-d	Preserved microorganism preparations, containing green fluorescent protein, for clinical or industrial laboratory quality control use

SCHEDULE 3

Trademark Licenses

Micro

None.

Gibson

None.

SCHEDULE 4

Copyrights and Copyright Applications

<u>Micro</u>	
None.	
Gibson	
None.	
	Copyright Licenses
Micro	
None.	
Gibson	
None.	

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RECORDED: 10/12/2017