

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
 Stylesheet Version v1.2

EPAS ID: PAT4550041

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	SECURITY INTEREST (TERM)
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
METABOLON, INC.	06/13/2016
LACM, INC.	06/13/2016
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	MIDCAP FINANCIAL TRUST, AS AGENT
<b>Street Address:</b>	C/O MIDCAP FINANCIAL SERVICES, LLC, AS SERVICER
<b>Internal Address:</b>	7255 WOODMONT AVENUE, SUITE 200
<b>City:</b>	BETHESDA
<b>State/Country:</b>	MARYLAND
<b>Postal Code:</b>	20814
<b>PROPERTY NUMBERS Total: 12</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	15251579
Application Number:	15288917
Application Number:	15315147
Application Number:	15523854
Application Number:	15527362
Application Number:	62435967
Application Number:	62479534
Application Number:	62487542
Application Number:	62512776
Application Number:	62526043
PCT Number:	US2016060245
PCT Number:	US2017034605
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(703)610-6200
<i>Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.</i>	
<b>Phone:</b>	7036106100
<b>Email:</b>	boxip@hoganlovells.com

**Correspondent Name:** VALERIE BRENNAN, HOGAN LOVELLS US LLP  
**Address Line 1:** 7930 JONES BRANCH DRIVE, 9TH FLOOR  
**Address Line 2:** ATTN: BOX INTELLECTUAL PROPERTY  
**Address Line 4:** MCLEAN, VIRGINIA 22102

**NAME OF SUBMITTER:** VALERIE BRENNAN

**SIGNATURE:** /vb/

**DATE SIGNED:** 08/15/2017

**Total Attachments: 16**

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## INTELLECTUAL PROPERTY SECURITY AGREEMENT

This **INTELLECTUAL PROPERTY SECURITY AGREEMENT** is entered into as of the 13 day of June, 2016 by and between **MIDCAP FINANCIAL TRUST**, a Delaware statutory trust ("Agent"), **METABOLON, INC.**, a Delaware corporation, and **LACM, INC.**, a North Carolina corporation (each, a "**Grantor**" and collectively, the "**Grantors**").

### RECITALS

A. The Lenders have agreed to make certain advances of money and to extend certain financial accommodation to the Grantors (the "Credit Extensions") in the amounts and manner set forth in that certain Credit and Security Agreement (Term Loan) by and between Agent, the Lenders and the Grantors dated as of the date hereof (as the same may be amended, modified or supplemented from time to time, the "Credit Agreement"; capitalized terms used herein are used as defined in the Credit Agreement). The Lenders are willing to make the Credit Extensions to the Grantors, but only upon the condition, among others, that the Grantors shall grant to Agent, for the ratable benefit of the Lenders, a security interest in certain Copyrights, Trademarks, Patents, and Mask Works (as each term is described below) to secure the obligations of the Grantors under the Credit Agreement.

B. Pursuant to the terms of the Credit Agreement, each Grantor has granted to Agent, for the ratable benefit of the Lenders, a security interest in all of such Grantor's right, title and interest, whether presently existing or hereafter acquired, in, to and under all of the Collateral.

NOW, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged, and intending to be legally bound, as collateral security for the prompt and complete payment when due of its obligations under the Credit Agreement, each Grantor hereby represents, warrants, covenants and agrees as follows:

### AGREEMENT

To secure its obligations under the Credit Agreement, each Grantor grants and pledges to Agent, for the ratable benefit of the Lenders, a security interest in all of such Grantor's right, title and interest in, to and under its intellectual property (all of which shall collectively be called the "Intellectual Property Collateral"), including, without limitation, the following:

(a) Any and all copyright rights, copyright applications, copyright registrations and like protections in each work or authorship and derivative work thereof, whether published or unpublished and whether or not the same also constitutes a trade secret, now or hereafter existing, created, acquired or held, including without limitation those set forth on Exhibit A attached hereto (collectively, the "Copyrights");

(b) Any and all trade secrets, and any and all intellectual property rights in computer software and computer software products now or hereafter existing, created, acquired or held;

(c) Any and all design rights that may be available to such Grantor now or hereafter existing, created, acquired or held;

(d) All patents, patent applications and like protections including, without limitation, improvements, divisions, continuations, renewals, reissues, extensions and continuations-in-part of the same, including without limitation the patents and patent applications set forth on Exhibit B attached hereto (collectively, the "Patents");

(e) Any trademark and servicemark rights, whether registered or not, applications to register and registrations of the same and like protections, and the entire goodwill of the business of such Grantor connected with and symbolized by such trademarks, including without limitation those set forth on Exhibit C attached hereto (collectively, the "Trademarks");

(f) All mask works or similar rights available for the protection of semiconductor chips, now owned or hereafter acquired, including, without limitation those set forth on Exhibit D attached hereto (collectively, the "Mask Works");

(g) Any and all claims for damages by way of past, present and future infringements of any of the rights included above, with the right, but not the obligation, to sue for and collect such damages for said use or infringement of the intellectual property rights identified above;

(h) All licenses or other rights to use any of the Copyrights, Patents, Trademarks, or Mask Works and all license fees and royalties arising from such use to the extent permitted by such license or rights;

(i) All amendments, extensions, renewals and extensions of any of the Copyrights, Trademarks, Patents, or Mask Works; and

(j) All proceeds and products of the foregoing, including without limitation all payments under insurance or any indemnity or warranty payable in respect of any of the foregoing.

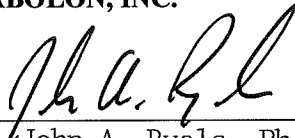
This security interest is granted in conjunction with the security interest granted to Agent, for the ratable benefit of the Lenders, under the Credit Agreement. The rights and remedies of Agent with respect to the security interest granted hereby are in addition to those set forth in the Credit Agreement and the other Financing Documents, and those which are now or hereafter available to Agent as a matter of law or equity. Each right, power and remedy of Agent provided for herein or in the Credit Agreement or any of the Financing Documents, or now or hereafter existing at law or in equity shall be cumulative and concurrent and shall be in addition to every right, power or remedy provided for herein and the exercise by Agent of any one or more of the rights, powers or remedies provided for in this Intellectual Property Security Agreement, the Credit Agreement or any of the other Financing Documents, or now or hereafter existing at law or in equity, shall not preclude the simultaneous or later exercise by any person, including Agent, of any or all other rights, powers or remedies.

[Signature page follows.]


IN WITNESS WHEREOF, the parties have caused this Intellectual Property Security Agreement to be duly executed by its officers thereunto duly authorized as of the first date written above.

**GRANTORS:**

**METABOLON, INC.**

By:  (SEAL)  
Name: John A. Ryals, Ph.D.  
Title: President and Chief Executive Officer

**LACM, INC.**

By:  (SEAL)  
Name: John A. Ryals, Ph.D.  
Title: President and Chief Executive Officer

Address:

Metabolon, Inc.  
617 Davis Drive, Suite 400  
Durham, NC 27713  
Attn: Frank Fee, Vice President of Finance and Secretary  
Facsimile: \_\_\_\_\_  
E-Mail: \_\_\_\_\_

**AGENT:**

**MIDCAP FINANCIAL TRUST**

By: Apollo Capital Management, L.P.,  
its investment manager

By: Apollo Capital Management GP, LLC,  
its general partner

By:  (SEAL)  
Name: Michael Levin  
Title: Authorized Signatory

Address:

Midcap Financial Trust  
c/o MidCap Financial Services, LLC, as servicer  
7255 Woodmont Avenue, Suite 200  
Bethesda, Maryland 20814  
Attn: Account Manager for Spectranetics transaction  
Facsimile: 301-941-1450  
E-mail: [notices@midcapfinancial.com](mailto:notices@midcapfinancial.com)

with a copy to:

Midcap Financial Trust  
c/o MidCap Financial Services, LLC, as servicer  
7255 Woodmont Avenue, Suite 200  
Bethesda, Maryland 20814  
Attn: General Counsel  
Facsimile: 301-941-1450  
E-mail: [legalnotices@midcapfinancial.com](mailto:legalnotices@midcapfinancial.com)

EXHIBIT A

Copyrights

<u>Description</u>	Registration/ Application <u>Number</u>	Registration/ Application <u>Date</u>
Mlims – laboratory information management system	N/A	N/A
Surveyor Tools – user interface for lipid data analysis	N/A	N/A

## Exhibit B

## Patents:

Assignee / Owner	Country	Application No.	Status	Filing Date	Patent No.	Issue Date	Expiration Date
Metabolon	US	10/300,360	Granted	11/20/2002	US 6,873,914	3/29/2005	12/7/2022
Metabolon/ Cornell	US	10/695,265	Granted	10/27/2003	US 7,329,489	2/12/2008	4/13/2021
Metabolon/ Cornell	US	10/757,616	Granted	1/13/2004	US 7,005,255	2/28/2006	4/13/2021
Metabolon	US	11/016,612	Granted	12/17/2004	US 8,428,881	4/23/2013	10/19/2029
Metabolon	US	11/133,953	Granted	5/20/2005	US 8,131,473	3/6/2012	11/23/2028
Metabolon	US	11/192,804	Granted	7/29/2005	US 8,594,942	11/26/2013	2/20/2030
Metabolon/ Cornell	US	11/301,077	Granted	12/12/2005	US 7,682,783	3/23/2010	4/13/2021
Metabolon/ Cornell	US	11/301,079	Granted	12/12/2005	US 7,682,784	3/23/2010	4/13/2021
Metabolon/ Cornell	US	11/357,732	Granted	2/17/2006	US 7,635,556	12/22/2009	4/13/2021
Metabolon/ Cornell	US	11/405,033	Granted	4/14/2006	US 7,550,258	6/23/2009	4/13/2021
Metabolon	CA	2618123.0	Granted	8/7/2006	CA 2,618,123	4/2/2013	8/7/2026
Metabolon	JP	2008-526121	Granted	8/7/2006	JP 4,950,993	3/16/2012	8/7/2026
Metabolon	US	11/462,838	Granted	8/7/2006	US 7,433,787	10/7/2008	8/7/2026
Metabolon	US	11/711,518	Granted	2/27/2007	US 8,841,077	9/23/2014	1/10/1930
Metabolon	CA	2646890.0	Granted	3/20/2007	CA 2,646,890	7/31/2012	3/20/2027
Metabolon	JP	2009-501695	Granted	3/20/2007	JP 5,496,650	3/14/2014	3/20/2027
Metabolon	US	11/688,526	Granted	3/20/2007	US 7,561,975	7/14/2009	11/12/2027
Metabolon/ Cornell	US	11/728,826	Granted	3/27/2007	US 7,910,301	3/22/2011	4/13/2021
Metabolon/ Cornell	US	11/728,827	Granted	3/27/2007	US 7,550,260	6/23/2009	4/13/2021



Metabolon/ Cornell	US	11/728,640	Granted	3/27/2007	US 7,553,616	6/30/2009	4/13/2021
Metabolon	CH	20070836680.0	Granted	8/8/2007	CH 2057473	11/12/2014	8/8/2027
Metabolon	DE	20070836680.0	Granted	8/8/2007	DE 2057473	11/12/2014	8/8/2027
Metabolon	EP	7836680.4	Granted	8/8/2007	EP 2057473	11/12/2014	8/8/2027
Metabolon	ES	20070836680.0	Granted	8/8/2007	ES 2057473	11/12/2014	8/8/2027
Metabolon	FR	20070836680.0	Granted	8/8/2007	FR 2057473	11/12/2014	8/8/2027
Metabolon	GB	20070836680.0	Granted	8/8/2007	GB 2057473	11/12/2014	8/8/2027
Metabolon	US	11/840,466	Granted	8/17/2007	US 7,807,138	10/5/2010	9/20/2027
Metabolon	US	11/901,523	Granted	9/17/2007	US 8,849,577	9/30/2014	4/6/1930
Metabolon	AU	2007299846.0	Granted	9/18/2007	AU 2007299846	3/5/2015	9/18/2027
Metabolon	CH	7868439.6	Granted	10/12/2007	EP 2,089,539	12/7/2011	10/12/2027
Metabolon	DE	7868439.6	Granted	10/12/2007	EP 2,089,539	12/7/2011	10/12/2027
Metabolon	EP	7868439.6	Granted	10/12/2007	EP 2,089,539	12/7/2011	10/12/2027
Metabolon	FR	7868439.6	Granted	10/12/2007	EP 2,089,539	12/7/2011	10/12/2027
Metabolon	GB	7868439.6	Granted	10/12/2007	EP 2,089,539	12/7/2011	10/12/2027
Metabolon	IE	7868439.6	Granted	10/12/2007	EP 2,089,539	12/7/2011	10/12/2027
Metabolon	US	11/871,752	Granted	10/12/2007	US 7,781,160	8/24/2010	10/12/2027
Metabolon	US	12/218,980	Granted	7/17/2008	US 8,187,830	5/29/2012	7/26/2028
Metabolon	US	12/245,862	Granted	10/6/2008	US 7,949,475	5/24/2011	8/25/2029
Metabolon	CH	8845659.5	Granted	10/31/2008	EP 2,227,689	12/26/2012	10/31/2028
Metabolon	DE	8845659.5	Granted	10/31/2008	EP 2,227,689	12/26/2012	10/31/2028
Metabolon	EP	8845659.5	Granted	10/31/2008	EP 2,227,689	12/26/2012	10/31/2028
Metabolon	ES	8845659.5	Granted	10/31/2008	EP 2,227,689	12/26/2012	10/31/2028
Metabolon	FR	8845659.5	Granted	10/31/2008	EP 2,227,689	12/26/2012	10/31/2028
Metabolon	GB	8845659.5	Granted	10/31/2008	EP 2,227,689	12/26/2012	10/31/2028
Metabolon	IE	8845659.5	Granted	10/31/2008	EP 2,227,689	12/26/2012	10/31/2028
Metabolon	US	12/327,758	Granted	12/3/2008	US 7,884,318	2/8/2011	7/18/2029
Metabolon	JP	2009-529349	Granted	3/18/2009	JP 5,297,379	6/21/2013	9/18/2027
Metabolon	CH	7842724.2	Granted	3/23/2009	EP 2,061,899	8/29/2012	9/18/2027
Metabolon	DE	7842724.2	Granted	3/23/2009	EP 2,061,899	8/29/2012	9/18/2027

Metabolon	EP	7842724.2	Granted	3/23/2009	EP 2,061,899	8/29/2012	9/18/2027
Metabolon	FR	7842724.2	Granted	3/23/2009	EP 2,061,899	8/29/2012	9/18/2027
Metabolon	GB	7842724.2	Granted	3/23/2009	EP 2,061,899	8/29/2012	9/18/2027
Metabolon	IE	7842724.2	Granted	3/23/2009	EP 2,061,899	8/29/2012	9/18/2027
Metabolon	JP	2009-532611	Granted	4/10/2009	JP 5,363,984	9/13/2013	10/12/2027
Metabolon/ Cornell	US	12/463,690	Granted	5/11/2009	US 7,947,453	5/24/2011	4/13/2021
Metabolon/ Duke Univ.	US	12/300,000	Granted	5/27/2009	US 8,394,354	3/12/2013	9/19/2029
Metabolon	HK	9110580.6	Granted	11/12/2009	HK 1131209	11/27/2015	8/8/2027
Metabolon	HK	9110767.1	Granted	11/17/2009	HK 1,131,806	12/14/2012	9/18/2027
Metabolon	CH	8780229.4	Granted	12/8/2009	CH 2,164,977	10/30/2013	7/17/2028
Metabolon	DE	8780229.4	Granted	12/8/2009	DE 2,164,977	10/30/2013	7/17/2028
Metabolon	EP	8780229.4	Granted	12/8/2009	EP 2,164,977	10/30/2013	7/17/2028
Metabolon	ES	8780229.4	Granted	12/8/2009	EP 2,164,977	10/30/2013	7/17/2028
Metabolon	FR	8780229.4	Granted	12/8/2009	EP 2,164,977	10/30/2013	7/17/2028
Metabolon	GB	8780229.4	Granted	12/8/2009	GB 2,164,977	10/30/2013	7/17/2028
Metabolon	HK	10109028.5	Granted	12/8/2009	HK 1142636	3/28/2014	7/17/2028
Metabolon	IE	8780229.4	Granted	12/8/2009	IE 2,164,977	10/30/2013	7/17/2028
Metabolon	SG	PCT/US2008/008756	Granted	12/17/2009	SG 157,785	7/13/2012	12/17/2029
Metabolon	AU	AU 2008279778	Granted	1/14/2010	AU 2008279778	1/8/2015	7/17/2028
Metabolon	MX	MX/a/2010/000414	Granted	1/14/2010	MX 315,308	11/13/2013	1/14/2030
Metabolon	JP	2010-517019	Granted	1/15/2010	JP 5,701,601	2/27/2015	7/17/2028
Metabolon	US	12/441,945	Granted	2/12/2010	US 8,518,650	8/27/2013	9/18/2027
Metabolon/ Univ. Michigan	JP	2010-521202	Granted	2/14/2010	JP 5,406,187	11/8/2013	8/15/2028
Metabolon/ Univ. Michigan	DE	8827819.7	Granted	2/18/2010	EP 2,179,292	11/28/2012	8/15/2028

Metabolon/ Univ. Michigan	EP	8827819.7	Granted	2/18/2010	EP 2,179,292	11/28/2012	8/15/2028
Metabolon/ Univ. Michigan	GB	8827819.7	Granted	2/18/2010	EP 2,179,292	11/28/2012	8/15/2028
Metabolon/ Univ. Michigan	AU	2008289172.0	Granted	3/11/2010	AU 2,008,289,172	5/2/2013	8/15/2028
Metabolon	JP	2010-532284	Granted	4/28/2010	JP 5,270,684	5/17/2013	10/31/2028
Metabolon	JP	2010-543261	Granted	7/15/2010	JP 5,512,546	4/4/2014	1/15/2029
Metabolon	CN	200980109140.X	Granted	8/1/2010	ZL200980109140.x	6/25/2014	1/15/2029
Metabolon/ Univ. Michigan	HK	10110005.0	Granted	10/22/2010	HK 1,143,418	8/16/2013	8/15/2028
Metabolon/ Mass Gen Hospital	US	13/082,843	Granted	4/8/2011	US 8,679,457	3/25/2014	4/8/2031
Metabolon	US	13/084,999	Granted	4/12/2011	US 8,175,816	5/8/2012	8/7/2026
Metabolon	JP	2011-549293	Granted	8/5/2011	JP 5,567,600	6/27/2014	2/5/2030
Metabolon	US	13/148,082	Granted	8/5/2011	US 8,658,351	2/25/2014	8/5/2031
Metabolon	CH	10739188.0	Granted	9/5/2011	EP 2,393,946	12/4/2013	9/5/2031
Metabolon	DE	10739188.0	Granted	9/5/2011	EP 2,393,946	12/4/2013	9/5/2031
Metabolon	EP	10739188.0	Granted	9/5/2011	EP 2,393,946	12/4/2013	9/5/2031
Metabolon	FR	10739188.0	Granted	9/5/2011	EP 2,393,946	12/4/2013	9/5/2031
Metabolon	GB	10739188.0	Granted	9/5/2011	EP 2,393,946	12/4/2013	9/5/2031
Metabolon	US	13/431,126	Granted	3/27/2012	US 9,189,595	11/17/2015	9/27/2032
Metabolon	JP	JP2012-532349	Granted	3/28/2012	JP 5,866,287	1/8/2016	10/1/2030
Metabolon	US	13/457,620	Granted	4/27/2012	US 8,546,098	10/1/2013	7/26/2028
Metabolon	CH	12188223.7	Granted	10/11/2012	CH 2,546,649	2/25/2015	10/31/2028
Metabolon	DE	12188223.7	Granted	10/11/2012	DE 2,546,649	2/25/2015	10/31/2028
Metabolon	EP	12188223.7	Granted	10/11/2012	EP 2,546,649	2/25/2015	10/31/2028

Metabolon	FR	12188223.7	Granted	10/11/2012	FR 2,546,649	2/25/2015	10/31/2028
Metabolon	GB	12188223.7	Granted	10/11/2012	GB 2,546,649	2/25/2015	10/31/2028
Metabolon/ East Virginia Medical School	US	13/698,116	Granted	11/15/2012	US 8,980,548	3/17/2015	1/27/2033
Metabolon/ Univ. Michigan	EP	12194382.3	Granted	11/27/2012	EP 2,597,464	2/25/2015	8/15/2028
Metabolon	MX	MX/a/2013/008169	Granted	7/12/2013	MX 341,954	9/8/2016	7/17/2028
Metabolon	US	13/966,475	Granted	8/14/2013	US 8,809,008	8/19/2014	7/26/2028
Metabolon / Helmholz Centrum	US	14/128,107	Granted	12/20/2013	US 9,109,252	8/18/2015	6/21/2032
Metabolon	US	14/324,689	Granted	7/7/2014	US 9,250,225	2/2/2016	7/17/2028
Metabolon	AU	2014216035.0	Granted	8/29/2014	AU 2014216035	12/22/2016	7/17/2028
Metabolon	JP	2014-218116	Granted	10/27/2014	JP 5,876,918	1/29/2016	7/17/2028
Metabolon	EP	12196378.90	Allowed	8/8/2007			
Metabolon	DE	12196378.90	Allowed	8/8/2007			
Metabolon	FR	12196378.90	Allowed	8/8/2007			
Metabolon	EP	7758894.5	Published	3/20/2007			
Metabolon	CA	20072662987	Published	8/8/2007			
Metabolon	BR	PI0815095-8	Pending	7/17/2008			
Metabolon	CA	2,690,541	Published	7/17/2008			
Metabolon	CA	2,712,455	Pending	1/15/2009			
Metabolon	US	12/376,903	Published	6/1/2010			
Metabolon	EP	9702007.7	Published	7/19/2010			
Metabolon	BR	PI1013387-09	Pending	9/20/2011			
Metabolon	EP	10774032.6	Published	4/30/2012			
Metabolon	US	13/800,010	Published	3/13/2013			

Metabolon	EP	12807813.6	Published	1/31/2014			
Metabolon	JP	2014-530734	Allowed	3/13/2014			
Metabolon	US	14/344,655	Published	3/13/2014			
Metabolon	EP	12831223.8	Published	3/18/2014			
Metabolon	EP	EP 15155591.9	Published	2/18/2015			
Metabolon	EP	14746017.4	Published	7/8/2015			
Metabolon	US	14/763,962	Published	7/28/2015			
Metabolon	JP	2015-556042	Pending	7/30/2015			
Metabolon	WO	PCT/US2015/042904	Expired	7/30/2015			1/30/2017
Metabolon	US	14/843,356	Published	9/2/2015			
Metabolon	US	14/856,184	Published	9/16/2015			
Metabolon	CA	2,911,204	Pending	11/2/2015			
Metabolon	WO	PCT/US2015/058934	Expired	11/4/2015			5/5/2017
Metabolon	US	14/889,930	Published	11/9/2015			
Metabolon	BR	BR112015028253-9	Pending	11/10/2015			
Metabolon	MX	MX/a/2015/015561	Pending	11/10/2015			
Metabolon	CN	2.0148E+11	Published	11/13/2015			8/6/2017
Metabolon	JP	2016-514016	Pending	11/13/2015			
Metabolon	WO	PCT/US2015/061215	Published	11/18/2015			5/19/2017
Metabolon	US	14/948,457	Published	11/23/2015			
Metabolon	JP	2015-236454	Pending	12/3/2015			
Metabolon	AU	2014265669	Pending	12/7/2015			
Metabolon	EP	14797070.1	Published	12/14/2015			
Metabolon	US	14/975,988	Published	12/21/2015			
Metabolon	WO	PCT/US2016/016536	Published	2/4/2016			8/6/2017
Metabolon	US	15/026,341	Published	3/31/2016			
Metabolon	HK	16104033.3	Published	4/8/2016			
Metabolon	HK	16105395.2	Published	5/11/2016			
Metabolon	AU	2014364539	Pending	5/27/2016			
Metabolon	US	62/344,613	Expired	6/2/2016			6/2/17

Metabolon	EP	14870759.9	Published	6/3/2016			
Metabolon	HK	16106343.3	Published	6/3/2016			
Metabolon	SG	11201604702Y	Pending	6/9/2016			
Metabolon	CA	2,933,571	Pending	6/10/2016			
Metabolon	US	15/104,560	Published	6/15/2016			
Metabolon	JP	2016-541152	Pending	6/17/2016			
Metabolon	MX	MX/a/2016/008045	Pending	6/17/2016			
Metabolon	MX	MX/a/2016/009020	Pending	7/8/2016			
Metabolon	AU	AU2016206265	Published	7/19/2016			
Metabolon	US	62/367,839	Pending	7/28/2016			7/28/17
Metabolon	US	15/251,579	Pending	8/30/2016			
Metabolon	HK	16110994.7	Pending	9/19/2016			
Metabolon	CA	2,945,165	Pending	10/6/2016			
Metabolon	JP	JP 2016-561615	Pending	10/7/2016			
Metabolon	US	15/288,917	Published	10/7/2016			
Metabolon	AU	AU2015243857	Pending	10/8/2016			
Metabolon	EP	15721065.9	Published	10/18/2016			
Metabolon	WO	PCT/US2016/060245	Published	11/3/2016			5/3/2018
Metabolon	HK	16113151	Pending	11/16/2016			
Metabolon	JP	2016-569423	Pending	11/24/2016			
Metabolon	US	15/315,147	Published	11/30/2016			
Metabolon	CN	201580030719.2	Published	12/8/2016			
Metabolon	US	62/435,967	Pending	12/19/2016			12/19/17
Metabolon	EP	EP15729638.5	Published	12/21/2016			
Metabolon	CA	2955204	Pending	1/13/2017			
Metabolon	CN	201580040519.5	Pending	1/25/2017			
Metabolon	AU	2015296304	Published	1/30/2017			
Metabolon	JP	JP2017-505546	Pending	1/30/2017			
Metabolon	EP	15827995	Published	2/28/2017			
Metabolon	US	62/479,534	Pending	3/31/2017			3/31/18

Metabolon	US	62/487,542	Pending	4/20/2017			4/20/18
Metabolon	CA	2,965,874	Pending	4/25/2017			
Metabolon	JP	2017-526884	Pending	5/18/2017			
Metabolon	US	15/523,854	Pending	5/2/2017			
Metabolon	EP	15856657.0	Pending	5/16/2017			
Metabolon	CN	20158006349.2	Pending	5/19/2017			
Metabolon	US	15/527,362	Pending	5/17/2017			
Metabolon	WO	PCT/US2017/034605	Pending	5/26/17			12/2/18
Metabolon	US	62/512,776	Pending	5/31/17			5/31/18
Metabolon	US	62/526,043	Pending	6/28/2017			6/28/18

## Exhibit C

## Trademarks:

Type of IP: Trademark	Country	Status	Application Number	Registration Number	Application Date	Registration Date
Precision Metabolomics	Int'l-Madrid Protocol	Pending	A0067091		5/16/2017	
Precision Metabolomics	US	Pending	87/438,891		5/5/2017	
accuGFR	US	Pending	A0065526		3/9/2017	
accuGFR	Int'l-Madrid Protocol	Pending	1 348 028		3/9/2017	
LIPOMICS	US	Registered	86400298	4746986	9/19/2014	6/2/2015
Lipomics Logo	US	Registered	86400276	4727737	9/19/2014	4/28/2015
META IMD	US	Pending	87192130		10/4/2016	
META IMD	Argentina	Pending	3,617,981		6/30/2017	
META IMD	Brazil	Pending Awaiting filing receipt				
META IMD	Chile	Pending Awaiting filing receipt				
META IMD	Peru	Pending	708373		7/5/2017	
META IMD	Qatar	Pending Awaiting filing receipt				
META IMD	Saudi Arabia	Awaiting filing receipt				
META IMD	Int'l-Madrid Protocol	Pending	A0067599		6/7/2017	
METABOLON	US	Registered	78561330	3,058,960	2/5/2005	2/14/2006
METABOLON & Design	US	Registered	77443519	3,530,800	4/9/2008	11/11/2008
METABOLON Metaboman Design	Int'l-Madrid Protocol Only	Registered	A0046136	1242182	11/3/2014	4/9/2015



METABOLON Metaboman Design	Japan	Registered	A0046136	1242182	11/3/2014	4/9/2015
METABOLON Metaboman Design	Mexico	Registered	A0046136	1242182	11/3/2014	4/9/2015
METABOLON Metaboman Design	US	Registered	86442915	4814724	11/3/2014	9/15/2015
METABOLON PLUS DESIGN (SPHERE)	Canada	Registered	1390597	TMA7930994	4/9/2008	3/28/2011
METABOLON PLUS DESIGN (SPHERE)	Int'l-Madrid Protocol Only	Registered	A0012140	78675	4/18/2008	4/18/2008
METABOLON PLUS DESIGN (SPHERE)	Mexico	Registered	Unfiled			
METABOL YNC & Design	Austria	Registered	A0046148	124978	11/4/2014	11/4/2014
METABOL YNC & Design	Germany	Registered	A0046148	124978	11/4/2014	11/4/2014
METABOL YNC & Design	Int'l-Madrid Protocol Only	Registered	A0046148	124978	11/4/2014	11/4/2014
METABOL YNC & Design	Japan	Registered	A0046148	124978	11/4/2014	11/4/2014
METABOL YNC & Design	Mexico	Registered	A0046149	124979	11/4/2014	11/4/2014
METABOL YNC & Design	Switzerland	Registered	A0046150	124980	11/4/2014	11/4/2014
METABOL YNC & Design	United Kingdom	Registered	A0046151	124981	11/4/2014	11/4/2014
METABOL YNC & Design	US	Registered	86442918	4801218	11/3/2014	8/25/2015
QUINTASA-Petition to Cancel (owned by Ferring B.V.)	Ferring/US	Registered	76681820	4159546	9/13/2007	7/10/2012
QUANTOSE	Benelux	Registered	A0053483	1278334	9/29/2015	9/29/2015
QUANTOSE	China	Registered	85468464	1278334	3/19/2017	
QUANTOSE	Denmark	Registered	A0053483	1278334	9/29/2015	9/29/2015
QUANTOSE	Germany	Registered	A0053483	1278334	9/29/2015	9/29/2015
QUANTOSE	Int'l-Madrid Protocol Only	Registered	A0053483	1278334	9/29/2015	9/29/2015

EXHIBIT D

Mask Works

None