PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT2713826

SUBMISSION TYPE:			NEW ASSIGNMENT		
NATURE OF CONVE	TURE OF CONVEYANCE: SECURITY AGREEMENT				
CONVEYING PARTY	′ DATA				
		Nai	me	Execution Date	
METABOLIC SOLU	TIONS DEVELO	PMENT	COMPANY, LLC	02/03/2014	
RECEIVING PARTY	DATA				
Name:	SQUARE 1 B	ANK			
Street Address:	406 Blackwell	I Street			
Internal Address:	Suite 240				
City:	Durham				
State/Country:		OLINA			
Postal Code:	27701				
PROPERTY NUMBE	RS Total: 15				
	RS Total: 15		Number		
PROPERTY NUMBE Property T Patent Number:	RS Total: 15	8629159	9		
PROPERTY NUMBE Property 7 Patent Number: Patent Number:	RS Total: 15	8389556	9 6		
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PCT Number:	US2013073254			
CORRESPONDENCE DATA				
	(919)354-1278 919-314-3086			
	andocsdept@square1bank.com			
Correspondence will be sent via US Mail when the email attempt is unsuccessful.Correspondent Name:SQUARE 1 BANKAddress Line 1:406 BLACKWELL STREETAddress Line 2:SUITE 240Address Line 4:DURHAM, NORTH CAROLINA 27701				
NAME OF SUBMITTER:	LEE CONNER			
Signature:	/leeconner-tkf/			
Date:	02/05/2014			
Total Attachments: 8 source=Metabolic solutions- signed IPSA#page1.tif source=Metabolic solutions- signed IPSA#page2.tif source=Metabolic solutions- signed IPSA#page3.tif source=Metabolic solutions- signed IPSA#page4.tif source=Metabolic solutions- signed IPSA#page5.tif source=Metabolic solutions- signed IPSA#page6.tif source=Metabolic solutions- signed IPSA#page7.tif source=Metabolic solutions- signed IPSA#page8.tif				

INTELLECTUAL PROPERTY SECURITY AGREEMENT

THIS INTELLECTUAL PROPERTY SECURITY AGREEMENT is entered into as of February 3, 2014 by and between SQUARE 1 BANK ("*Bank*") and METABOLIC SOLUTIONS DEVELOPMENT COMPANY, LLC a Delaware limited liability company ("*Grantor*").

RECITALS

A. Bank has agreed to make certain advances of money and to extend certain financial accommodations to Grantor (the "Loans") in the amounts and manner set forth in that certain Loan and Security Agreement by and between Bank and Grantor dated of even date herewith (as the same may be amended, modified or supplemented from time to time, the "Loan Agreement"; capitalized terms used herein are used as defined in the Loan Agreement).

B. Bank is willing to extend and to continue to extend financial accommodations to Grantor, but only upon the condition, among others, that Grantor shall grant to Bank a security interest in certain Copyrights, Trademarks and Patents to secure the obligations of Grantor under the Loan Agreement.

C. Pursuant to the terms of the Loan Agreement, Grantor has granted to Bank a security interest in all of Grantor's right, title and interest, whether presently existing or hereafter acquired, in, to and under all of the Collateral.

Now, THEREFORE, for good and valuable consideration, receipt of which is hereby acknowledged, and intending to be legally bound, as collateral security for the prompt and complete payment when due of its obligations under the Loan Agreement and all other agreements now existing or hereafter arising between Grantor and Bank, Grantor hereby represents, warrants, covenants and agrees as follows:

AGREEMENT

To secure its obligations under the Loan Agreement and under any other agreement now existing or hereafter arising between Bank and Grantor, Grantor grants and pledges to Bank a security interest in all of Grantor's right, title and interest in, to and under its Intellectual Property (including without limitation those Copyrights, Patents and Trademarks listed on Exhibits A, B and C hereto), and including without limitation all proceeds thereof (such as, by way of example but not by way of limitation, license royalties and proceeds of infringement suits), the right to sue for past, present and future infringements, all rights corresponding thereto throughout the world and all re-issues, divisions continuations, renewals, extensions and continuations-in-part thereof (collectively, "Intellectual Property Collateral").

This security interest is granted in conjunction with the security interest granted to Bank under the Loan Agreement. The rights and remedies of Bank with respect to the security interest granted hereby are in addition to those set forth in the Loan Agreement and the other Loan Documents, and those which are now or hereafter available to Bank as a matter of law or equity. Each right, power and remedy of Bank provided for herein or in the Loan Agreement or any of

PATENT REEL: 032162 FRAME: 0332 the Loan Documents, or now or hereafter existing at law or in equity shall be cumulative and concurrent and shall be in addition to every right, power or remedy provided for herein and the exercise by Bank of any one or more of the rights, powers or remedies provided for in this Intellectual Property Security Agreement, the Loan Agreement or any of the other Loan Documents, or now or hereafter existing at law or in equity, shall not preclude the simultaneous or later exercise by any person, including Bank, of any or all other rights, powers or remedies.

Grantor represents and warrants that Exhibits A, B, and C attached hereto set forth any and all intellectual property rights in connection to which Grantor has registered or filed an application with either the United States Patent and Trademark Office or the United States Copyright Office, as applicable.

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.

GRANTOR:

Address of Grantor:

METABOLIC SOLUTIONS DEVELOPMENT COMPANY, LLC

By: Sten eno Name: CEO Title:

BANK:

SQUARE 1 BANK

Address of Bank:

406 Blackwell Street, Suite 240 Durham, NC 27701 Attn: Loan Documentation Department

By: Name: Pstrick Cohill Title:

3.

EXHIBIT A

COPYRIGHTS

Description	Registration Number	Registration Date
N/A	N/A	N/A

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Ехнівіт В

PATENTS

Title	Patent OR Serial Number	Issue OR Filing Date	
Thiazolidinedione Analogues	U.S. Pat. No. 8,629,159	01/14/2014	
Thiazolidinedione Analogues	U.S. Pat. No. 8,389,556	03/05/2013	
Thiazolidinedione Analogues	U.S. Serial No. 13/751,672	01/28/2013	
Thiazolidinedione Analogues for the Treatment of Metabolic Diseases	U.S. Pat. No. 8,067,450	11/29/2011	
Thiazolidinedione Analogues for the Treatment of Metabolic Diseases	U.S. Pat. No. 8,304,441	11/06/2012	
PPAR-Sparing Thiazolidinediones and Combinations for the Treatment of Neurodegenerative Diseases	U.S. Serial No. 13/515,522	12/15/2010	
PPAR-Sparing Thiazolidinedione Salts for the Treatment of Metabolic Diseases	U.S. Serial No. 13/515,508	12/15/2010	
Novel Synthesis for Thiazolidinedione Compounds	U.S. Serial No. 13/641,917	4/18/2011	
Novel Synthesis for Thiazolidinedione Compounds	U.S. Serial No. 13/813,516	8/9/2011	

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Title	Patent OR Serial Number	Issue OR Filing Date	
Synthesis for Thiazolidinedione Compounds	U.S. Serial No. 13/813,462	8/9/2011	
PPAR-Sparing Compounds for the Treatment of Metabolic Disorders	U.S. Serial No. 61/856,850	07/22/2013	
PPAR-Sparing Thiazolidinediones and Combinations for the Treatment of Neurodegenerative and Other Metabolic Diseases	PCT Serial No. PCT/US2013/073254	12/05/2013	
Ppar-Sparing Thiazolidinediones And Combinations For The Treatment Of Obesity And Other Metabolic Diseases	13/515588	12/15/2010	
Thiazolidinedione Analogues	13/641936	4/20/2011	
Novel Synthesis For Thiazolidinedione Compounds	14/032284	9/20/2013	

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PATENT REEL: 032162 FRAME: 0337

EXHIBIT C

TRADEMARKS

Country	Mark	Application Number	File Date	Registration Number	Registration Date
UNITED STATES	MITOGLITAZONE	78/725,884	10/04/2005	3,473,765	07/22/2008
UNITED STATES	mTOT	85/491,864	12/09/2011		
UNITED STATES	mTOT MODULATOR	85/491,866	12/09/2011		
UNITED STATES	MITOSTATIN	85/491,869	12/09/2011		
AUSTRALIA	mTOT	1467518	12/23/2011	1467518	11/02/2012
AUSTRALIA	mTOT MODULATOR	1467521	12/23/2011	1467521	07/27/2012
AUSTRALIA	MITOSTATIN	1467519	12/23/2011	1467519	09/17/2013
BRÀZIL	mTOT	840006322	01/24/2012		
BRAZIL	mTOT	840006314	01/24/2012		
BRAZIL	mTOT MODULATOR	840006306	01/24/2012		
BRAZIL	MITOSTATIN	840006284	01/24/2012	-	
CHINA	mTOT	10436709	01/18/2012	10436709	03/28/2013
CHINA	mTOT MODULATOR	10436710	01/18/2012	10436710	03/28/2013
CHINA	MITOSTATIN	10436711	01/18/2012	10436711	03/21/2013
INDIA	mTOT	2258485	12/29/2011	1128298	10/30/2013
INDIA	mTOT	2258487	12/29/2011		
INDIA	mTOT MODULATOR	2258483	12/29/2011		
JAPAN	mTOT	2012-2546	01/18/2012	5514161	08/10/2012
JAPAN	mTOT MODULATOR	2012-204	01/05/2012	5500953	06/15/2012
JAPAN	MITOSTATIN	2012-205	01/05/2012	5500954	06/15/2012
EUROPEAN UNION	mTOT	010532588	12/29/2011	010532588	05/24/2012
EUROPEAN UNION	mTOT MODULATOR	010532489	12/29/2011	010532489	05/09/2012
EUROPEAN UNION	MITOSTATIN	010532505	12/29/2011	010532505	05/09/2012
CANADA	mTOT	1558157	12/29/2011		
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Country	Mark	Application Number	File Date	Registration Number	Registration Date
CANADA	mTOT MODULATOR	1558158	12/29/2011		
MEXICO	mTOT	1245022	01/27/2012	1324281	10/29/2012
MEXICO	mTOT	1245024	01/27/2012	1323068	10/25/2012
MEXICO	mTOT MODULATOR	1245017	01/27/2012	1353577	03/11/2013

PATENT REEL: 032162 FRAME: 0339

RECORDED: 02/05/2014