

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT3436264

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	SECURITY INTEREST	
CONVEYING PARTY DATA		
	Name	Execution Date
	KBI BIOPHARMA, INC.	10/31/2011
RECEIVING PARTY DATA		
Name:	SQUARE 1 BANK	
Street Address:	406 Blackwell Street	
Internal Address:	Suite 240	
City:	Durham	
State/Country:	NORTH CAROLINA	
Postal Code:	27701	
PROPERTY NUMBERS Total: 1		
	Property Type	Number
	Application Number:	13239493
CORRESPONDENCE DATA		
Fax Number:	(919)354-1278	
<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>		
Phone:	919-314-3086	
Email:	loandocsdept@square1bank.com	
Correspondent Name:	SQUARE 1 BANK	
Address Line 1:	406 BLACKWELL STREET	
Address Line 2:	SUITE 240	
Address Line 4:	DURHAM, NORTH CAROLINA 27701	
NAME OF SUBMITTER:	LEE CONNER	
SIGNATURE:	/leeconner-ccd/	
DATE SIGNED:	07/13/2015	
Total Attachments: 6		
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INTELLECTUAL PROPERTY SECURITY AGREEMENT

THIS INTELLECTUAL PROPERTY SECURITY AGREEMENT is entered into as of October 31, 2011 by and between SQUARE 1 BANK ("*Bank*") and KBI BIOPHARMA, INC., a Delaware corporation ("*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 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:

KBI BIOPHARMA, INC.

1101 Hamlin Road

By: James Chaput

Durham, NC 27704

Name: James Chaput

Title: CEO

BANK:

Address of Bank:

SQUARE 1 BANK

406 Blackwell Street, Suite 240

By: Erin Travis

Durham, NC 27701

Name: Erin Travis

Attn: Loan Documentation Department

Title: VBO

square 1 bank

EXHIBIT A
COPYRIGHTS

Description	Registration Number	Registration Date
NONE		

EXHIBIT B**PATENTS**

Description	Registration OR Serial Number	Registration OR Filing Date
Methods and systems for manipulating particles using a fluidized bed	13/054276	5-12-2011
Methods and systems for manipulating particles using a fluidized bed	13/054292	5-12-2011
Centrifugal fermentation process	5622819	4-22-1997
Centrifugal fermentation process	5821116	10-13-1998
Centrifugal fermentation process	6133019	10-17-2000
Centrifugal fermentation process	6214617	4-10-2001
Methods and devices for remediation and fermentation	6660509	12-9-2003
Methods and devices for remediation and fermentation	6703217	3-9-2004
Biocatalyst chamber encapsulation system for bioremediation and fermentation	6916652	7-12-2005
Methods and compositions for chromatography	6942804	9-13-2005
Methods and compositions for chromatography	7347943	3-25-2008
Methods and compositions for chromatography	12/055159	3-25-2008
Methods, systems and apparatus for manipulating particles	13499807	7-16-2012
Formulations for bovine granulocyte colony stimulating factor and variants thereof	13239493	9-22-2011

EXHIBIT C
TRADEMARKS

Description	Registration/ Application Number	Registration/ Application Date
kSep	3723384	12-8-2009
THE SCIENCE TO SUCCEED	85746584	10-5-2012
KBI BIOPHARMA	85566501	3-12-2012

square 1 bank