

TRADEMARK ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

ETAS ID: TM508945

SUBMISSION TYPE:	NEW ASSIGNMENT		
NATURE OF CONVEYANCE:	SECURITY INTEREST		
CONVEYING PARTY DATA			
Name	Formerly	Execution Date	Entity Type
OHANA BIOSCIENCES, INC.		01/29/2019	Corporation: DELAWARE
RECEIVING PARTY DATA			
Name:	PACIFIC WESTERN BANK		
Street Address:	406 BLACKWELL STREET		
Internal Address:	SUITE 240		
City:	DURHAM		
State/Country:	NORTH CAROLINA		
Postal Code:	27701		
Entity Type:	STATE CHARTERED BANK: CALIFORNIA		
PROPERTY NUMBERS Total: 1			
Property Type	Number	Word Mark	
Serial Number:	88175800	OHANA	
CORRESPONDENCE DATA			
Fax Number:	9193541278		
<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) 314-3114		
Email:	diligencereview@square1bank.com		
Correspondent Name:	PACIFIC WESTERN BANK		
Address Line 1:	406 BLACKWELL STREET		
Address Line 2:	SUITE 240		
Address Line 4:	DURHAM, NORTH CAROLINA 27701		
NAME OF SUBMITTER:	NICHOLAS NANCE		
SIGNATURE:	/NICHOLAS NANCE-JLT/		
DATE SIGNED:	02/06/2019		
Total Attachments: 7			
source=Ohana Biosciences - IPSA - Executed 1-29-19#page1.tif			
source=Ohana Biosciences - IPSA - Executed 1-29-19#page2.tif			
source=Ohana Biosciences - IPSA - Executed 1-29-19#page3.tif			
source=Ohana Biosciences - IPSA - Executed 1-29-19#page4.tif			

CH \$40.00 88175800

source=Ohana Biosciences - IPSA - Executed 1-29-19#page5.tif

source=Ohana Biosciences - IPSA - Executed 1-29-19#page6.tif

source=Ohana Biosciences - IPSA - Executed 1-29-19#page7.tif

INTELLECTUAL PROPERTY SECURITY AGREEMENT

THIS INTELLECTUAL PROPERTY SECURITY AGREEMENT is entered into as of January 29, 2019 by and between PACIFIC WESTERN BANK, a California state chartered bank ("*Bank*"), and OHANA BIOSCIENCES, INC., a Delaware corporation ("*Grantor*").

RECITALS

A. Bank has agreed to make certain advances of money and to extend certain financial accommodations to Grantor in the amounts and manner set forth in that certain Loan and Security Agreement by and between Bank and Grantor dated as of May 16, 2017 (as the same may be amended, modified or supplemented from time to time, the "Loan Agreement"; capitalized terms used but not 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, until Grantor achieves the Series B Financing Event, Grantor grants 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 to the Bank under the Loan Agreement 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 the 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; provided that such grant shall be effective only until the occurrence, after the date of this Agreement, of the Series B Financing Event under the Loan Agreement.

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

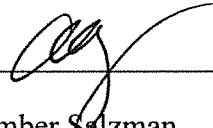
IN WITNESS WHEREOF, the parties have caused this Intellectual Property Security Agreement to be duly executed by its officers thereunto duly authorized as of the first date written above.

GRANTOR:

Address of Grantor:

OHANA BIOSCIENCES, INC.

325 Vassar Street
Cambridge, MA 02139

By:  _____

Name: Amber Salzman

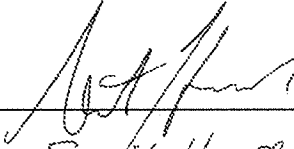
Title: President & CEO

BANK:

Address of Bank:

PACIFIC WESTERN BANK

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

By:  _____

Name: Scott Hansen

Title: Senior Vice President

EXHIBIT A
COPYRIGHTS

<u>Description</u>	<u>Registration Number</u>	<u>Registration Date</u>
None		

EXHIBIT B**PATENTS**

<u>Description</u>	<u>Patent Application No./Issued Patent No.</u>	<u>Application/Issue Date</u>
COMPOSITIONS AND METHODS FOR PRESERVING SPERM	62/773,433	11/30/2018
COMPOSITIONS AND METHODS FOR PRESERVING SPERM	62/773,440	11/30/2018
COMPOSITIONS AND METHODS FOR ENHANCING SPERM FUNCTION	62/773,448	11/30/2018
COMPOSITIONS AND METHODS FOR ENHANCING SPERM FUNCTION	62/773,453	11/30/2018
COMPOSITIONS AND METHODS FOR ENHANCING SPERM FUNCTION	62/773,462	11/30/2018
COMPOSITIONS AND METHODS FOR ENHANCING SPERM FUNCTION	62/773,471	11/30/2018
ANTIBODIES AGAINST MEMBRANE PROTEINS FOR USE IN CONTRACEPTION	62/774,626	12/3/2018
ANTIBODIES AGAINST MEMBRANE PROTEINS FOR USE IN CONTRACEPTION	62/774,643	12/3/2018
ANTIBODIES AGAINST MEMBRANE PROTEINS FOR USE IN CONTRACEPTION	62/774,638	12/3/2018

EXHIBIT C
TRADEMARKS

<u>Description</u>	<u>Registration/Serial Number</u>	<u>Registration/ Application Date</u>
OHANA (Australia)	IR1360337	7/6/2017
OHANA (Canada)	1846609	7/10/2017
OHANA (China)	IR1360337	7/6/2017
OHANA (European Union)	IR1360337	7/6/2017
OHANA (India)	IR1360337	7/6/2017
OHANA (Japan)	IR1360337	7/6/2017
OHANA (Mexico)	IR1360337	7/6/2017
OHANA (New Zealand)	IR1360337	7/6/2017
OHANA (Norway)	IR1360337	7/6/2017
OHANA (Russian Federation)	IR1360337	7/6/2017
OHANA (Singapore)	IR1360337	7/6/2017
OHANA (South Africa)	201719163	7/10/2017
OHANA (Switzerland)	IR1360337	7/6/2017
OHANA (United Kingdom)	IR1360337	7/6/2017
OHANA (United States)	88/175,800	10/31/2018
OHANA (WIPO)	IR1360337	7/6/2017
OHANA BIOSCIENCES (Australia)	IR1360383	7/6/2017
OHANA BIOSCIENCES (Canada)	1846610	7/10/2017
OHANA BIOSCIENCES (China)	IR1360383	7/6/2017
OHANA BIOSCIENCES (European Union)	IR1360383	7/6/2017
OHANA BIOSCIENCES (India)	IR1360383	7/6/2017
OHANA BIOSCIENCES (Japan)	IR1360383	7/6/2017
OHANA BIOSCIENCES (Mexico)	IR1360383	7/6/2017
OHANA BIOSCIENCES (New Zealand)	IR1360383	7/6/2017
OHANA BIOSCIENCES (Norway)	IR1360383	7/6/2017
OHANA BIOSCIENCES (Russian Federation)	IR1360383	7/6/2017

OHANA BIOSCIENCES (Singapore)	IR1360383	7/6/2017
OHANA BIOSCIENCES (South Africa)	201719156	7/10/2017
OHANA BIOSCIENCES (Switzerland)	IR1360383	7/6/2017
OHANA BIOSCIENCES (United Kingdom)	IR1360383	7/6/2017
OHANA BIOSCIENCES (WIPO)	IR1360383	7/6/2017