

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
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EPAS ID: PAT4694431

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT	
<b>NATURE OF CONVEYANCE:</b>	SECURITY INTEREST	
<b>CONVEYING PARTY DATA</b>		
<b>Name</b>		<b>Execution Date</b>
ORIGENE TECHNOLOGIES, INC.		11/10/2017
<b>RECEIVING PARTY DATA</b>		
<b>Name:</b>	MANUFACTURERS AND TRADERS TRUST COMPANY	
<b>Street Address:</b>	25 SOUTH CHARLES STREET	
<b>Internal Address:</b>	12TH FLOOR	
<b>City:</b>	BALTIMORE	
<b>State/Country:</b>	MARYLAND	
<b>Postal Code:</b>	21201	
<b>PROPERTY NUMBERS Total: 12</b>		
<b>Property Type</b>	<b>Number</b>	
Patent Number:	6316193	
Patent Number:	6657054	
Patent Number:	7053193	
Patent Number:	6833247	
Patent Number:	6953673	
Patent Number:	6455292	
Patent Number:	6635481	
Patent Number:	6780595	
Patent Number:	7115393	
Patent Number:	7482119	
Patent Number:	6664112	
Patent Number:	7164992	
<b>CORRESPONDENCE DATA</b>		
<b>Fax Number:</b>	(704)444-1111	
<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>	704-444-1000	
<b>Email:</b>	usptomail@alston.com	
<b>Correspondent Name:</b>	ALSTON & BIRD LLP	
<b>Address Line 1:</b>	BANK OF AMERICA PLAZA	

PATENT

<b>Address Line 2:</b>	101 S TRYON STREET
<b>Address Line 4:</b>	CHARLOTTE, NORTH CAROLINA 28280-4000

<b>ATTORNEY DOCKET NUMBER:</b>	052988/488015
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<b>NAME OF SUBMITTER:</b>	BRIAN M. BONNER
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<b>SIGNATURE:</b>	/Brian M. Bonner/
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<b>DATE SIGNED:</b>	11/17/2017
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**Total Attachments: 4**

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GRANT OF SECURITY INTEREST  
PATENTS AND TRADEMARKS

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FOR GOOD AND VALUABLE CONSIDERATION, receipt and sufficiency of which are hereby acknowledged, ORIGENE TECHNOLOGIES, INC., a Delaware corporation (the “Grantor”), with principal offices at 9620 Medical Center Drive, Suite 200, Rockville, Maryland 20850 on this 10<sup>th</sup> day of November, 2017, assigns and grants to MANUFACTURERS AND TRADERS TRUST COMPANY, as Collateral Agent (together with its successors and assigns, the “Grantee”) with principal offices at 25 South Charles Street, 12<sup>th</sup> Floor, Baltimore, Maryland 21201, a security interest in (i) all of the Grantor’s right, title and interest in and to the trademarks, trademark registrations, and trademark applications (the “Trademarks”) set forth on Schedule A attached hereto and all reissues, extensions or renewals thereof; (ii) all of the Grantor’s right, title and interest in and to the patents, and patent applications (the “Patents”) set forth on Schedule B attached hereto and all reissues, continuations, continuations-in-part and extensions thereof, in each case together with (iii) all Proceeds (as such term is defined in the Pledge and Security Agreement referred to below) of the Trademarks and Patents, (iv) the goodwill of the businesses with which the Trademarks are associated, and (v) all causes of action arising prior to or after the date hereof for infringement of any of the Trademarks and Patents or unfair competition regarding the same.

THIS GRANT OF SECURITY INTEREST (this “Grant”), is made to secure the satisfactory performance and payment of all the “Secured Obligations” of the Grantor, as such term is defined in that certain Pledge and Security Agreement among Grantor, the other grantors from time to time party thereto and the Grantee, dated as of November 10, 2017 (as the same may be amended, restated, supplemented or otherwise modified from time to time, the “Pledge and Security Agreement”).

This Grant has been granted in conjunction with the security interest granted to the Grantee under the Pledge and Security Agreement. The rights and remedies of the Grantee with respect to the security interest granted herein are without prejudice to, and are in addition to those set forth in the Pledge and Security Agreement, all terms and provisions of which are incorporated herein by reference. In the event that any provisions of this Grant are deemed to conflict with the Pledge and Security Agreement, the provisions of the Pledge and Security Agreement shall govern. This Grant may be executed in counterparts.

[SIGNATURE ON THE FOLLOWING PAGE]

IN WITNESS WHEREOF, the undersigned have executed this Grant as of the date referenced above.

ORIGENE TECHNOLOGIES, INC., as Grantor

By: 

Name: Wesley H. Lee

Title: Chief Executive Officer

*[OriGene Grant of Security Interest Patents and Trademarks.]*

TRADEMARKS

<u>Trademarks</u>	<u>Registration Number</u>	<u>Registration Date</u>
1. OriGene & Design	3,052,346	1/31/2006
2. Trueclone	2,988,746	8/30/2005
3. OriGene	2,290,404	11/2/1999
4. Hush	3,256,895	6/26/2007
5. Your Gene Company	3,338,194	11/20/2007
6. Turbofectin	3,481,517	8/5/2008
7. Trueorf	3,577,365	2/17/2009
8. Exactorf	3,832,397	8/10/2010
9. Powerprep	3,673,891	8/25/2009
10. Truemab	4,166,501	7/3/2012
11. Ultramab	4,321,887	4/16/2013

TRADEMARK APPLICATIONS

REGISTERED PATENTS

<u>Patent</u>	<u>Patent Number</u>	<u>Issue Date</u>
1. Rapid-Screen cDNA Library Panels	6,316,193	11/13/2001
2. Regulated Angiogenesis Genes and Polypeptides	6,657,054	12/2/2003
3. Breast Cancer Transcription Factor Gene and Uses	7,053,193	5/30/2006
4. Regulated Prostate Cancer Genes	6,833,247	12/21/2004
5. Histamine H2 Receptor and Uses	6,953,673	10/11/2005
6. Full-Length Serine Protein Kinase in Brain and Pancreas	6,455,292	9/24/2002
7. TBX3 Gene and Methods of Using IT	6,635,481	10/21/2003
8. Human TBX20 Gene and Uses	6,780,595	8/24/2004
9. Melanocortin-1 Receptor and Methods of Use	7,115,393	10/3/2006
10. Solid Phase Methods for Polynucleotide Production	7,482,119	1/27/2009
11. Methods for Improving the Sequence Fidelity of Synthetic	6,664,112	12/16/2003
12. Method and System for Polynucleotide Synthesis	7,164,992	1/6/2007

PATENT APPLICATIONS