

TRADEMARK ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

ETAS ID: TM420703

SUBMISSION TYPE:	NEW ASSIGNMENT		
NATURE OF CONVEYANCE:	SECURITY INTEREST		
CONVEYING PARTY DATA			
Name	Formerly	Execution Date	Entity Type
CAREDX, INC.		03/15/2017	Corporation: DELAWARE
RECEIVING PARTY DATA			
Name:	JGB COLLATERAL, LLC		
Street Address:	c/o JGB MANAGEMENT, INC., 21 CHARLES STREET		
City:	WESTPORT		
State/Country:	CONNECTICUT		
Postal Code:	06680		
Entity Type:	Limited Liability Company: UNITED STATES		
PROPERTY NUMBERS Total: 10			
Property Type	Number	Word Mark	
Registration Number:	3442169	ALLOMAP	
Registration Number:	3143352	ALLOMAP	
Registration Number:	4984156	ALLOSURE	
Registration Number:	3437631	XDX	
Registration Number:	3199533	XDX EXPRESSION DIAGNOSTICS	
Registration Number:	5064628	CAREDX	
Registration Number:	3896426	CAREDX	
Registration Number:	4884670	CAREDX	
Serial Number:	86425845	RENAMAP	
Serial Number:	86404134	RENASURE	
CORRESPONDENCE DATA			
Fax Number:	2142000853		
<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>			
Email:	ipdocketing@haynesboone.com		
Correspondent Name:	HAYNES AND BOONE, LLP		
Address Line 1:	2323 VICTORY AVENUE, SUITE 700		
Address Line 4:	DALLAS, TEXAS 75219		
ATTORNEY DOCKET NUMBER:	52050.30_81625		

OP \$265.00 3442169

NAME OF SUBMITTER:	Jeffrey A. Wolfson
SIGNATURE:	/Jeffrey A. Wolfson/
DATE SIGNED:	03/22/2017
Total Attachments: 11 source=IP_Security_Agmt_52050_30#page1.tif source=IP_Security_Agmt_52050_30#page2.tif source=IP_Security_Agmt_52050_30#page3.tif source=IP_Security_Agmt_52050_30#page4.tif source=IP_Security_Agmt_52050_30#page5.tif source=IP_Security_Agmt_52050_30#page6.tif source=IP_Security_Agmt_52050_30#page7.tif source=IP_Security_Agmt_52050_30#page8.tif source=IP_Security_Agmt_52050_30#page9.tif source=IP_Security_Agmt_52050_30#page10.tif source=IP_Security_Agmt_52050_30#page11.tif	

INTELLECTUAL PROPERTY SECURITY AGREEMENT

This Intellectual Property Security Agreement (“**Agreement**”) is entered into as of March 15, 2017 by and among (a) **CareDx, Inc.**, a Delaware corporation having its principal place of business at 3260 Bayshore Boulevard, Brisbane, California 94005 (“**Grantor**”) and (b) **JGB Collateral, LLC**, a Delaware limited liability company in its capacity as administrative agent (in such capacity, the “**Agent**”) for itself and the holders of the Grantor’s 9.5% Original Issue Discount Senior Secured Debentures due February 28, 2020, in the original aggregate principal amount of \$27,780,000 (collectively, the “**Debentures**”).

RECITALS

WHEREAS, pursuant to the Purchase Agreement (as defined in the Debentures), the Purchasers have severally agreed to extend the loans to the Grantor evidenced by the Debentures;

WHEREAS, in order to induce the Purchasers to extend the loans evidenced by the Debentures, Agent, Purchasers, Grantor and certain other debtors have executed a Security Agreement dated as of the date hereof (as may be amended, restated, supplemented or otherwise modified from time to time, the “**Security Agreement**”), pursuant to which the Grantor has granted a security interest in its Intellectual Property (as that term is defined in the Security Agreement) constituting Collateral (as that term is defined in the Security Agreement) (collectively, the “**Intellectual Property Collateral**”) to secure the prompt payment, performance and discharge in full of all of the Grantor’s obligations under the Debentures and other Transaction Documents (as defined therein); and

WHEREAS, Agent and Grantor desire to enter into this Agreement to more fully evidence the Agent’s security interests in the Intellectual Property Collateral.

NOW, THEREFORE, in consideration of the agreements herein contained and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties hereto hereby agree as follows:

AGREEMENT

- (1) Grant of Security Interest. To secure its obligations to Agent and Purchasers (collectively, the “**Secured Parties**”), Grantor grants and pledges to Agent, for the benefit of the Secured Parties, a security interest in all of Grantor’s right, title and interest in, to and under all Intellectual Property Collateral, including, without limitation:
 - (a) the registered copyrights set forth on Exhibit A attached hereto (the “Copyrights”);
 - (b) the patents and patent applications set forth on Exhibit B attached hereto (the “Patents”);
 - (c) the trademarks set forth on Exhibit C attached hereto (the “Trademarks”);

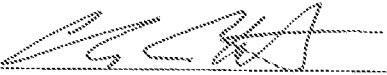
- (d) Any and all claims for damages by way of past, present and future infringements of any of the rights included above, with the right, but not the obligation, to sue for and collect such damages for said use or infringement of the intellectual property rights identified above;
 - (e) All licenses or other rights to use any of the Copyrights, Patents or Trademarks and all license fees and royalties arising from such use to the extent permitted by such license or rights;
 - (f) All amendments, extensions, renewals and extensions of any of the Copyrights, Trademarks or Patents; and
 - (g) 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.
- (2) Recordation. Grantor authorizes the Commissioner for Patents, the Commissioner for Trademarks and the Register of Copyrights and any other government officials to record and register this Agreement upon request by Agent.
- (3) Loan Documents. This Agreement has been entered into pursuant to and in conjunction with the Security Agreement, which is hereby incorporated by reference. The provisions of the Security Agreement shall supersede and control over any conflicting or inconsistent provision herein. The rights and remedies of Agent with respect to the Intellectual Property Collateral are as provided by the Security Agreement and related documents, and nothing in this Agreement shall be deemed to limit such rights and remedies.
- (4) Execution in Counterparts. This Agreement may be executed in counterparts (and by different parties hereto in different counterparts), each of which shall constitute an original, but all of which when taken together shall constitute a single contract. Delivery of an executed counterpart of a signature page to this Agreement by facsimile or in electronic (i.e., "pdf" or "tif" format) shall be effective as delivery of a manually executed counterpart of this Agreement.
- (5) Successors and Assigns. This Agreement will be binding on and shall inure to the benefit of the parties hereto and their respective successors and assigns.
- (6) Governing Law. This Agreement and any claim, controversy, dispute or cause of action (whether in contract or tort or otherwise) based upon, arising out of or relating to this Agreement and the transactions contemplated hereby and thereby shall be governed by, and construed in accordance with, the laws of the United States and the State of New York, without giving effect to any choice or conflict of law provision or rule (whether of the State of New York or any other jurisdiction).

[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:

CAREDX, INC.

By: 

Name: Charles Constanti

Title: Chief Financial Officer and Secretary

AGENT:

JGB COLLATERAL, LLC

By: _____

Name: Brett Cohen

Title: President

[signature page to IP Security Agreement]

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:

CAREDX, INC.

By: _____

Name: Charles Constanti

Title: Chief Financial Officer and Secretary

AGENT:

JGB COLLATERAL, LLC

By:  _____

Name: Brett Cohen

Title: President

[signature page to IP Security Agreement]

EXHIBIT A

Copyrights

None.

EXHIBIT B

Patents

PATENTS

Title	Issue Date	Registration Number	Jurisdiction
Diagnosing or monitoring transplant rejection using the expression of WDR40A	April 11, 2006	7026121	United States
Diagnosing or monitoring transplant rejection using the expression of ITGA4 (AlloMap), PF4 (AlloMap), G6B (AlloMap), MIR (AlloMap; aka MARCH8), SEMA7A (AlloMap), IL1-R2 (AlloMap), ITGAM (AlloMap), RHOU (AlloMap), KPNA6 or IKZF1	June 26, 2007	7235358	United States
Assessing immune status using the expression of PDCD1	April 6, 2010	7691569	United States
Diagnosing or monitoring transplant rejection using the expression of PDCD1	August 31, 2010	7785797	United States
Diagnosing or monitoring transplant rejection using the expression of FLT3	February 1, 2011	7879556	United States
Diagnosing the status of a transplant or immune disorder using the expression of a splice variant of CXCR3, CXCR4, FLT3 (AlloMap), IL1-R2 (AlloMap), ITGB7v1-6, MARCH8 (AlloMap), IKZF1, PRDM1v1, CD44v1, LAIR2v2	August 9, 2011	7993832	United States
Assessing cardiac transplant rejection using the expression of WDR40A	March 20, 2013	1585972	EPO DE FR GB

Title	Issue Date	Registration Number	Jurisdiction
Diagnosing or monitoring transplant rejection using the expression of PDCD1	June 5, 2013	2194145	EPO DE FR GB
Diagnosing or monitoring transplant rejection using the expression of FLT3	March 20, 2013	2253719	EPO DE FR GB
Assessing cardiac transplant rejection using the expression of ITGA4 (AlloMap), SEMA7A (AlloMap), IL1-R2 (AlloMap), ITGAM (AlloMap), RHOU (AlloMap), PRKCQ	October 13, 2012	2292786	EPO DE FR GB
Diagnosing or monitoring transplant rejection using the expression of numerous genes, including PDCD1 (AlloMap) and FLT3 (AlloMap)	May 31, 2007	2003299465	Australia
Diagnosing or monitoring transplant rejection using the expression of PDCD1	June 28, 2016	2483481	Canada
Assessing cardiac transplant rejection using the expression of IGJ	January 12, 2010	7645575	United States
Diagnosing or monitoring cardiac transplant rejection using the expression of IL8	November 9, 2010	7829286	United States
Diagnosing or monitoring transplant rejection using the expression of CXCR4	February 22, 2011	7892745	United States
Diagnosing or monitoring cardiac transplant rejection using the expression of HBB	June 4, 2011	7960121	United States
Diagnosing or monitoring an autoimmune or chronic inflammatory disease using the expression of OAS3	June 14, 2005	6905827	United States

Title	Issue Date	Registration Number	Jurisdiction
Diagnosing or monitoring an autoimmune or chronic inflammatory disease using the expression of LTF	August 25, 2009	7579148	United States
Diagnosing or monitoring an autoimmune or chronic inflammatory disease using the expression of IFI6	October 20, 2009	7604936	United States
Diagnosing or monitoring an autoimmune or chronic inflammatory disease using the expression of IFI44	August 10, 2010	7771950	United States
Diagnosing or monitoring an autoimmune or chronic inflammatory disease using the expression of KLRF1	February 7, 2012	8110364	United States
Diagnosing a patient as having a longitudinally stable classification of SLE by detecting the expression of two or more interferon-response genes.	April 3, 2012	8148067	United States
Diagnosing or monitoring an autoimmune or chronic inflammatory disease using the expression of OAS3	May 13, 2011	2003587333	Japan
Diagnosing or monitoring lupus using the expression of IFI6	May 17, 2013	2009269351	Japan
System for detecting expression of numerous genes	November 12, 2004	20033132	South Africa
Compositions for assessing immune status or detecting transplant rejection	May 30, 2007	20049420	South Africa

PATENT APPLICATIONS

Title	Application Date	Application Number	Jurisdiction
Methods of monitoring immunosuppressive therapies in a transplant recipient	March 13, 2015	14/658,061	United States

Title	Application Date	Application Number	Jurisdiction
Methods of monitoring immunosuppressive therapies in a transplant recipient	March 13, 2015	2015229083	Australia
Methods of monitoring immunosuppressive therapies in a transplant recipient	March 13, 2015	BR1120160210387	Brazil
Methods of monitoring immunosuppressive therapies in a transplant recipient	March 13, 2015	TBD	Canada
Methods of monitoring immunosuppressive therapies in a transplant recipient	March 13, 2015	201580024879.6	China
Methods of monitoring immunosuppressive therapies in a transplant recipient	March 13, 2015	15761889.3	EPO

EXHIBIT C

Trademarks

TRADEMARKS

Mark	Registration Date	Registration Number	Jurisdiction
AlloMap	June 3, 2008	3442169	United States
AlloMap	September 12, 2006	3143352	United States
AlloMap	October 19, 2005	003923984	European Community
AlloMap	June 30, 2006	004439287	European Community
AlloMap	September 5, 2005	1053815	Australia
AlloMap	June 19, 2013	TMA853666	Canada
AlloMap	December 22, 2005	4917709	Japan
AlloMap	May 12, 2006	4952272	Japan
AlloMap	November 19, 2005	229407	Norway
AlloMap	September 13, 2005	537106	Switzerland
AlloSure	June 21, 2016	4984156	United States
ImmunoMap	May 5, 2005	1053816	Australia
XDx	May 27, 2008	3437631	United States
XDx (stylized)	August 14, 2007	826191290	Brazil
XDx (stylized)	June 4, 2008	003608049	European Community
XDx Expression Diagnostics & Design	January 16, 2007	3199533	United States
CareDx	October 18, 2016	5064628	United States
CareDx	December 28, 2010	3896426	United States
CareDx	January 12, 2016	4884670	United States
CareDx	June 2, 2015	013523279	European Community

TRADEMARK APPLICATIONS

Mark	Application Date	Application Number	Jurisdiction
RenaMap (allowed 10/13/2015)	October 16, 2014	86/425,845	United States
RenaSure	September 23,	86/404,134	United States

(allowed 10/13/2015)	2014		
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