

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT5973972

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	FIRST AMENDMENT TO INTELLECTUAL PROPERTY SECURITY AGREEMENT

CONVEYING PARTY DATA

Name	Execution Date
ADYNXX, INC.	02/20/2020
ADYNXX SUB, INC.	02/20/2020

RECEIVING PARTY DATA

Name:	OXFORD FINANCE LLC
Street Address:	133 NORTH FAIRFAX STREET
City:	ALEXANDRIA
State/Country:	VIRGINIA
Postal Code:	22314

PROPERTY NUMBERS Total: 12

Property Type	Number
Patent Number:	7943591
Patent Number:	8093225
Patent Number:	8741864
Patent Number:	9290762
Patent Number:	9700624
Application Number:	15019791
Application Number:	15504191
Application Number:	15479879
Application Number:	62634666
Application Number:	16552803
Application Number:	16358013
Application Number:	16080547

CORRESPONDENCE DATA

Fax Number: (800)494-7512

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.

Phone: 202-370-4756

Email: ipteam@cogencyglobal.com

Correspondent Name: JAY DASILVA

PATENT

Address Line 1: 1025 VERMONT AVE NW, SUITE 1130
Address Line 2: COGENCY GLOBAL INC.
Address Line 4: WASHINGTON, D.C. 20005

ATTORNEY DOCKET NUMBER:	1190340 PAT
NAME OF SUBMITTER:	DAVID HACKETT
SIGNATURE:	/David Hackett/
DATE SIGNED:	02/20/2020

Total Attachments: 12

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FIRST AMENDMENT TO INTELLECTUAL PROPERTY SECURITY AGREEMENT

THIS FIRST AMENDMENT to Intellectual Property Security Agreement (this “**Amendment**”) is made effective as of February 20, 2020 (the “**First Amendment Date**”) and made by and among OXFORD FINANCE LLC, a Delaware limited liability company with an office located at 133 North Fairfax Street, Alexandria, Virginia 22314 (in its individual capacity, “**Oxford**”; and in its capacity as Collateral Agent, “**Collateral Agent**”), the Lenders listed on Schedule 1.1 of the Loan Agreement (as defined below) or otherwise a party thereto from time to time including Oxford in its capacity as a Lender (each a “**Lender**” and collectively, the “**Lenders**”) and ADYNXX, INC., a Delaware corporation, formerly known as ALLIQUA BIOMEDICAL, INC., with an office at 100 Pine Street, #500, San Francisco, CA 94111 and ADYNXX SUB, INC., formerly known as ADYNXX, INC., with an office at 100 Pine Street, #500, San Francisco, CA 94111 (individually and collectively, jointly and severally, “**Grantor**”).

WHEREAS, Collateral Agent, Grantor and Lenders party thereto from time to time have entered into that certain Amended and Restated Loan and Security Agreement, dated as of November 24, 2015 (as amended, supplemented or otherwise modified from time to time, the “**Loan Agreement**”) pursuant to which Lenders have provided to Grantor certain loans in accordance with the terms and conditions thereof;

WHEREAS, in connection with the Loan Agreement, on June 30, 2019, Collateral Agent, Grantor and Lenders entered into that certain Intellectual Property Security Agreement (as amended, supplemented or otherwise modified from time to time, the “**IPSA**”);

WHEREAS, Grantor, Lenders and Collateral Agent desire to amend certain provisions of the IPSA as provided herein and subject to the terms and conditions set forth herein;

NOW, THEREFORE, in consideration of the promises, covenants and agreements contained herein, and other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, Grantor, Lenders and Collateral Agent hereby agree as follows:

1. Capitalized terms used herein but not otherwise defined shall have the respective meanings given to them in the Loan Agreement.
2. Exhibit B to the IPSA is hereby amended and restated in its entirety as set forth on Exhibit A hereto.
3. Exhibit C to the IPSA is hereby amended and restated in its entirety as set forth on Exhibit B hereto.
4. Limitation of Amendment.
 - a. The amendments set forth above are effective for the purposes set forth herein and shall be limited precisely as written and shall not be deemed to (a) be a consent to any amendment, waiver or modification of any other term or condition of any Loan Document, or (b) otherwise prejudice any right, remedy or obligation which Lenders or Grantor may now have or may have in the future under or in connection with any Loan Document, as amended hereby.
 - b. This Amendment shall be construed in connection with and as part of the Loan Documents and all terms, conditions, representations, warranties, covenants and agreements set forth in the Loan Documents, except as herein amended, are hereby ratified and confirmed and shall remain in full force and effect.
5. To induce Collateral Agent and Lenders to enter into this Amendment, Grantor hereby represents and warrants to Collateral Agent and Lenders as follows:
 - a. Immediately after giving effect to this Amendment (a) the representations and warranties contained in the Loan Documents are true, accurate and complete in all material respects as of the date hereof (except to the extent such representations and warranties relate to an earlier date, in

which case they are true and correct as of such date), and (b) no Event of Default has occurred and is continuing;

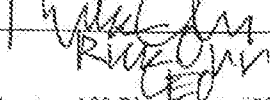
- b. Set forth on Exhibit A and Exhibit B hereto are a complete and current list of Grantor's Intellectual Property on the date hereof.
 - c. Grantor has the power and due authority to execute and deliver this Amendment and to perform its obligations under the IP SA, as amended by this Amendment;
 - d. The organizational documents of Grantor delivered to Collateral Agent on the Effective Date, and updated pursuant to subsequent deliveries by the Grantor to the Collateral Agent, remain true, accurate and complete and have not been amended, supplemented or restated and are and continue to be in full force and effect;
 - e. The execution and delivery by Grantor of this Amendment and the performance by Grantor of its obligations under the IP SA, as amended by this Amendment, do not and will not (i) contravene any material Requirement of Law binding on or affecting Grantor, (ii) constitute an event of default under any material agreement binding on Grantor, (iii) contravene any order, judgment or decree of any court or other governmental or public body or authority, or subdivision thereof, binding on Grantor, or (iv) contravene the organizational documents of Grantor;
 - f. The execution and delivery by Grantor of this Amendment and the performance by Grantor of its obligations under the IP SA, as amended by this Amendment, do not require any order, consent, approval, license, authorization or validation of, or filing, recording or registration with, or exemption by any governmental or public body or authority, or subdivision thereof, binding on Grantor, except as already has been obtained or made; and
 - g. This Amendment has been duly executed and delivered by Grantor and is the binding obligation of Grantor, enforceable against Grantor in accordance with its terms, except as such enforceability may be limited by bankruptcy, insolvency, reorganization, liquidation, moratorium or other similar laws of general application and equitable principles relating to or affecting creditors' rights.
6. Except as expressly set forth herein, the IP SA shall continue in full force and effect without alteration or amendment. This Amendment is, and shall be considered for all purposes, a Loan Document and this Amendment together with the other Loan Documents represent the entire agreement about this subject matter and supersede prior negotiations or agreements.
 7. This Amendment shall be deemed effective as of the First Amendment Date upon (a) the due execution and delivery to Collateral Agent of this Amendment by each party hereto; and (b) Grantor's payment of all Lenders' Expenses incurred through the date hereof, which may be debited from any of Grantor's accounts.
 8. This Amendment may be executed in any number of counterparts, each of which shall be deemed an original, and all of which, taken together, shall constitute one and the same instrument.
 9. This Amendment and the rights and obligations of the parties hereto shall be governed by and construed in accordance with the laws of the State of California.

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IN WITNESS WHEREOF, the parties hereto have caused this First Amendment to Intellectual Property Security Agreement to be executed as of the First Amendment Date.

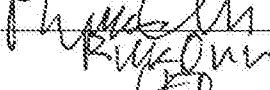
GRANTOR:

ADYNXX, INC. (formerly known as ALLIQUA BIOMEDICAL, INC.)

By 
Name: _____
Title: _____
Address of Grantor: 100 Pine Street, #500, San Francisco, CA 94111

GRANTOR:

ADYNXX SUB, INC. (formerly known as ADYNXX, INC.)

By 
Name: _____
Title: _____
Address of Grantor: 100 Pine Street, #500, San Francisco, CA 94111

COLLATERAL AGENT AND LENDER:

OXFORD FINANCE LLC

By _____
Name: _____
Title: _____

IN WITNESS WHEREOF, the parties hereto have caused this First Amendment to Intellectual Property Security Agreement to be executed as of the First Amendment Date.

GRANTOR:

ADYNXX, INC. (formerly known as ALLIQUA BIOMEDICAL, INC.)

By _____
Name:
Title:
Address of Grantor: 100 Pine Street, #500, San Francisco, CA 94111

GRANTOR:

ADYNXX SUB, INC. (formerly known as ADYNXX, INC.)

By _____
Name:
Title:
Address of Grantor: 100 Pine Street, #500, San Francisco, CA 94111

COLLATERAL AGENT AND LENDER:

OXFORD FINANCE LLC

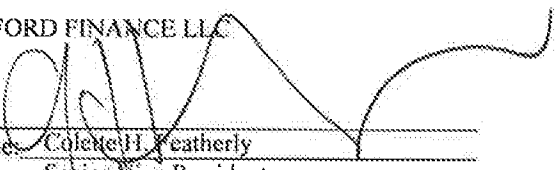
By 
Name: Coleen H. Featherly
Title: Senior Vice President

EXHIBIT A**Exhibit B**

Patents

<u>Title/Mark</u>	<u>Application No.</u>	<u>Application Date</u>	<u>Registration No.</u>	<u>Registration Date</u>	<u>Country</u>
GENE EXPRESSION AND PAIN	12/119,435	5/12/2008	7,943,591	5/17/2011	United States of America
GENE EXPRESSION AND PAIN	2008251320	5/12/2008	2008251320	4/3/2014	Australia
GENE EXPRESSION AND PAIN	2723672	5/12/2008			Canada
GENE EXPRESSION AND PAIN	8755344.2	5/12/2008	2158316	4/15/2015	European Patent Office
GENE EXPRESSION AND PAIN	2010-507728	5/12/2008	5646320	11/14/2014	Japan
GENE EXPRESSION AND PAIN	13/048,793	3/15/2011	8,093,225	1/10/2012	United States of America
GENE EXPRESSION AND PAIN	13/316,321	12/9/2011	8,741,864	6/3/2014	United States of America
GENE EXPRESSION AND PAIN	2014201462	5/12/2008	2014201462	1/12/2017	Australia
GENE EXPRESSION AND PAIN	14/258,927	4/22/2014	9,290,762	3/2/2016	United States of America
GENE EXPRESSION AND PAIN	2014-149516	5/12/2008	5890869	2/26/2016	Japan
GENE EXPRESSION AND PAIN	14179247.3	5/12/2008	2818550	12/28/2016	European Patent Office
FORMULATIONS FOR THE DELIVERY OF ACTIVE INGREDIENTS	2013259402	5/9/2013	2013259402	4/5/2018	Australia
FORMULATIONS FOR THE DELIVERY OF ACTIVE INGREDIENTS	BR112014027653-6	5/9/2013			Brazil
FORMULATIONS FOR THE DELIVERY OF ACTIVE INGREDIENTS	2872901	5/9/2013			Canada

FORMULATIONS FOR THE DELIVERY OF ACTIVE INGREDIENTS	201380036825.2	5/9/2013			China
FORMULATIONS FOR THE DELIVERY OF ACTIVE INGREDIENTS	13787024.2	5/9/2013			European Patent Office
FORMULATIONS FOR THE DELIVERY OF ACTIVE INGREDIENTS	9871/DELNP/2014	5/9/2013			India
FORMULATIONS FOR THE DELIVERY OF ACTIVE INGREDIENTS	2015-511720	5/9/2013	6251247	12/1/2017	Japan
FORMULATIONS FOR THE DELIVERY OF ACTIVE INGREDIENTS	2014149700	5/9/2013			Russian Federation
FORMULATIONS FOR THE DELIVERY OF ACTIVE INGREDIENTS	14/399,235	5/9/2013	9,700,624	7/11/2017	United States of America
GENE EXPRESSION AND PAIN	15106124.9	5/12/2008	HK1205530	2/15/2018	Hong Kong
FORMULATIONS FOR THE DELIVERY OF ACTIVE INGREDIENTS	15108951.3	5/9/2013			Hong Kong
GENE EXPRESSION AND PAIN	08755344.2	5/12/2008	2158316	4/15/2015	Austria
GENE EXPRESSION AND PAIN	08755344.2	5/12/2008	2158316	4/15/2015	Belgium
GENE EXPRESSION AND PAIN	08755344.2	5/12/2008	2158316	4/15/2015	Bulgaria
GENE EXPRESSION AND PAIN	08755344.2	5/12/2008	2158316	4/15/2015	Switzerland
GENE EXPRESSION AND PAIN	08755344.2	5/12/2008	2158316	4/15/2015	Cyprus
GENE EXPRESSION AND PAIN	08755344.2	5/12/2008	2158316	4/15/2015	Czech Republic
GENE EXPRESSION AND PAIN	08755344.2	5/12/2008	2158316	4/15/2015	Germany
GENE EXPRESSION AND	08755344.2	5/12/2008	2158316	4/15/2015	Denmark

PAIN					
GENE EXPRESSION AND PAIN	08755344.2	5/12/2008	2158316	4/15/2015	Estonia
GENE EXPRESSION AND PAIN	08755344.2	5/12/2008	2158316	4/15/2015	Spain
GENE EXPRESSION AND PAIN	08755344.2	5/12/2008	2158316	4/15/2015	Finland
GENE EXPRESSION AND PAIN	08755344.2	5/12/2008	2158316	4/15/2015	France
GENE EXPRESSION AND PAIN	08755344.2	5/12/2008	2158316	4/15/2015	United Kingdom
GENE EXPRESSION AND PAIN	08755344.2	5/12/2008	2158316	4/15/2015	Greece
GENE EXPRESSION AND PAIN	08755344.2	5/12/2008	2158316	4/15/2015	Croatia
GENE EXPRESSION AND PAIN	08755344.2	5/12/2008	2158316	4/15/2015	Hungary
GENE EXPRESSION AND PAIN	08755344.2	5/12/2008	2158316	4/15/2015	Ireland
GENE EXPRESSION AND PAIN	08755344.2	5/12/2008	2158316	4/15/2015	Iceland
GENE EXPRESSION AND PAIN	08755344.2	5/12/2008	2158316	4/15/2015	Italy
GENE EXPRESSION AND PAIN	08755344.2	5/12/2008	2158316	4/15/2015	Lithuania
GENE EXPRESSION AND PAIN	08755344.2	5/12/2008	2158316	4/15/2015	Luxembourg
GENE EXPRESSION AND PAIN	08755344.2	5/12/2008	2158316	4/15/2015	Latvia
GENE EXPRESSION AND PAIN	08755344.2	5/12/2008	2158316	4/15/2015	Monaco
GENE EXPRESSION AND PAIN	08755344.2	5/12/2008	2158316	4/15/2015	Malta
GENE EXPRESSION AND PAIN	08755344.2	5/12/2008	2158316	4/15/2015	Netherlands
GENE EXPRESSION AND	08755344.2	5/12/2008	2158316	4/15/2015	Poland

PAIN					
GENE EXPRESSION AND PAIN	08755344.2	5/12/2008	2158316	4/15/2015	Turkey
GENE EXPRESSION AND PAIN	2015-207655	5/12/2008	6082796	1/27/2017	Japan
GENE EXPRESSION AND PAIN	08755344.2	5/12/2008	2158316	4/15/2015	Portugal
GENE EXPRESSION AND PAIN	08755344.2	5/12/2008	2158316	4/15/2015	Romania
GENE EXPRESSION AND PAIN	08755344.2	5/12/2008	2158316	4/15/2015	Sweden
GENE EXPRESSION AND PAIN	08755344.2	5/12/2008	2158316	4/15/2015	Slovenia
GENE EXPRESSION AND PAIN	08755344.2	5/12/2008	2158316	4/15/2015	Slovakia
GENE EXPRESSION AND PAIN	15/019,791	2/9/2016			United States of America
GENE EXPRESSION AND PAIN	2016-64037	5/12/2008	6306075	3/16/2018	Japan
GENE EXPRESSION AND PAIN	08755344.2	5/12/2008	2158316	4/15/2015	Norway
GENE EXPRESSION AND PAIN	16199871.1	5/12/2008			European Patent Office
GENE EXPRESSION AND PAIN	2016266076	5/12/2008			Australia
OLIGONUCLEOTID E DECOYS FOR THE TREATMENT OF PAIN	20153011491	8/14/2015			Australia
OLIGONUCLEOTID E DECOYS FOR THE TREATMENT OF PAIN	BR1120170026295	8/14/2015			Brazil
OLIGONUCLEOTID E DECOYS FOR THE TREATMENT OF PAIN	2957250	8/14/2015			Canada
OLIGONUCLEOTID E DECOYS FOR THE TREATMENT OF PAIN	201580042835.6	8/14/2015			China

OLIGONUCLEOTID E DECOYS FOR THE TREATMENT OF PAIN	15832083.8	8/14/2015			European Patent Office
OLIGONUCLEOTID E DECOYS FOR THE TREATMENT OF PAIN	201717005785	8/14/2015			India
OLIGONUCLEOTID E DECOYS FOR THE TREATMENT OF PAIN	2017-508487	8/14/2015			Japan
OLIGONUCLEOTID E DECOYS FOR THE TREATMENT OF PAIN	2017108238	8/14/2015			Russian Federation
OLIGONUCLEOTID E DECOYS FOR THE TREATMENT OF PAIN	15/504,191	8/14/2015			United States of America
GENE EXPRESSION AND PAIN	14179247.3	5/12/2008	2818550	12/28/2016	Germany
GENE EXPRESSION AND PAIN	14179247.3	5/12/2008	2818550	12/28/2016	Spain
GENE EXPRESSION AND PAIN	14179247.3	5/12/2008	2818550	12/28/2016	France
GENE EXPRESSION AND PAIN	14179247.3	5/12/2008	2818550	12/28/2016	United Kingdom
GENE EXPRESSION AND PAIN	14179247.3	5/12/2008	2818550	12/28/2016	Italy
COMPOSITIONS AND METHODS FOR PAIN AMELIORATION VIA MODIFICATION OF GENE EXPRESSION	PCT/US2017/019989	2/28/2017			Patent Cooperation Treaty
FORMULATIONS FOR THE DELIVERY OF ACTIVE INGREDIENTS	15/479,879	4/5/2017			United States of America
GENE EXPRESSION AND PAIN	2017-106521	5/12/2008			Japan
FORMULATIONS FOR THE DELIVERY OF ACTIVE INGREDIENTS	2017-225318	5/9/2013			Japan

COMPOSITIONS AND METHODS FOR PAIN AMELIORATION IN A HIGH CATASTROPHIZING PATIENT POPULATION	62/634,666	2/23/2018			United States of America
FORMULATIONS FOR THE DELIVERY OF ACTIVE INGREDIENTS	16/552,803	8/27/2019			United States of America
OLIGONUCLEOTIDE DECOYS FOR THE TREATMENT OF PAIN	16/358,013	3/19/2019			United States of America
COMPOSITIONS AND METHODS FOR PAIN AMELIORATION VIA MODIFICATION OF GENE EXPRESSION	16/080,547	8/28/2018			United States of America

EXHIBIT B

Exhibit C

Trademarks

<u>Description</u>	<u>Registration/ Application Number</u>	<u>Registration/Application Date</u>
Hydress	4254452	12/04/2012
Alliqua	85702954	08/14/2012

Recordation Cover Sheet

Section 1 – Additional Conveying Parties

Adynxx Sub, Inc. – a Delaware corporation.