506217536 08/24/2020

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
BOB D. BROWN	06/22/2020
HENRYK T. DUDEK	06/11/2020
UTSAV SAXENA	06/11/2020
NATALIE PURSELL	06/11/2020
CHENG LAI	06/11/2020
WEIMIN WANG	06/09/2020
RACHEL STORR	06/09/2020
NAIM NAZEF	06/06/2020
BOYOUNG KIM	06/06/2020

RECEIVING PARTY DATA

Name:	DICERNA PHARMACEUTICALS, INC.
Street Address:	33 HAYDEN AVENUE
City:	LEXINGTON
State/Country:	MASSACHUSETTS
Postal Code:	02421

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16755342

CORRESPONDENCE DATA

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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: (617) 654-8603

Email: BOSPatents@dechert.com

DECHERT LLP Correspondent Name:

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Address Line 2: 100 OLIVER STREET

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ATTORNEY DOCKET NUMBER:	400930-011US1 (170311)
NAME OF SUBMITTER:	ANDREA L.C. REID

PAIENI **REEL: 053575 FRAME: 0478** 506217536

SIGNATURE:	/Andrea L.C. Reid/	
DATE SIGNED:	08/24/2020	
	This document serves as an Oath/Declaration (37 CFR 1.63).	

Total Attachments: 4

source=DRNA047US00-Dicerna_(170311)_Combined_Declaration_Assignment_(executed).docx#page1.tif source=DRNA047US00-Dicerna_(170311)_Combined_Declaration_Assignment_(executed).docx#page2.tif source=DRNA047US00-Dicerna_(170311)_Combined_Declaration_Assignment_(executed).docx#page3.tif source=DRNA047US00-Dicerna_(170311)_Combined_Declaration_Assignment_(executed).docx#page4.tif

PATENT REEL: 053575 FRAME: 0479

COMBINED DECLARATION (37 CFR § 1.63) AND ASSIGNMENT (DUAL PURPOSE) FOR UTILITY OR DESIGN PATENT APPLICATION USING AN APPLICATION DATA SHEET

DECLARATION:

The within-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. § 1001 by fine or imprisonment of not more than five (5) years, or both.

ASSIGNMENT:

WHEREAS, we, the undersigned,

Bob D. BROWN, mailing address 33 Hayden Avenue, Lexington, Massachusetts 02421, USA;

Henryk T. DUDEK, mailing address 33 Hayden Avenue, Lexington, Massachusetts 02421, USA;

Utsav SAXENA, mailing address 33 Hayden Avenue, Lexington, Massachusetts 02421, USA;

Natalie PURSELL, mailing address 33 Hayden Avenue, Lexington, Massachusetts 02421, USA;

Cheng LAI, mailing address 33 Hayden Avenue, Lexington, Massachusetts 02421, USA;

Weimin WANG, mailing address 33 Hayden Avenue, Lexington, Massachusetts 02421, USA;

Rachel STORR, mailing address 33 Hayden Avenue, Lexington, Massachusetts 02421, USA;

Naim NAZEF, mailing address 2 Goldman Circle, Bedford, Massachusetts 01730, USA;

Boyoung KIM, mailing address 33 Hayden Avenue, Lexington, Massachusetts 02421, USA;

of the invention described and claimed in "METHODS AND COMPOSITIONS FOR INHIBITING EXPRESSION OF LDHA" and hereby execute an application for a patent of the United States, having Application No. 16/755,342, filing date of April 10, 2020, and

are also aware of the following priority applications:

PCT/US2018/055735, filing date of October 12, 2018;

62/572,398, filing date of October 13, 2017;

62/572,403, filing date of October 13, 2017;

62/726,950, filing date of September 4, 2018;

WHEREAS, **DICERNA PHARMACEUTICALS, INC.** (hereinafter termed "Assignee"), having a place of business at **33 Hayden Avenue, Lexington, Massachusetts 02421**, desires to acquire the entire right, title and interest in and to said application and the invention disclosed therein, and in and to all embodiments of the invention, heretofore conceived, made or discovered by us (all collectively hereinafter termed "said invention"), and in and to any and all patents, inventor's certificates and other forms of protection (hereinafter termed "patents") thereon granted in the United States and foreign countries.

NOW, THEREFORE, in consideration of good and valuable consideration, receipt and sufficiency of which is acknowledged by us to have been received in full from said Assignee:

1. We do hereby sell, assign, transfer and convey unto said Assignee, and/or confirm prior assignment, transfer, or conveyance unto said Assignee, the entire right, title and interest (a) in and to said application and said invention; (b) in and to all rights to apply for foreign patents on said invention pursuant to the International Convention for the Protection of Industrial Property or otherwise; (c) in and to any and all applications filed and any and all patents

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granted on said invention in the United States or any foreign country, including each and every application filed and each and every patent granted on any application which is a division, substitution, or continuation of any of said applications; and (d) in and to each and every reissue or extensions of any of said patents.

- 2. We hereby covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right title and interest herein conveyed in the United States and foreign countries. Such cooperation by us shall include prompt production of pertinent facts and documents, giving of testimony, execution of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title and interest herein conveyed; (b) for prosecuting any of said applications; (c) for filing and prosecuting substitute, divisional, continuing or additional applications covering said invention; (d) for filing and prosecuting applications for reissuance of any said patents; (e) for interference or other priority proceedings involving said invention and any applications therefor and any patents granted thereon, including without limitation opposition proceedings, cancellation proceedings, priority contests, public use proceedings, infringement actions and court actions; provided, however, that the expense incurred by us in providing such cooperation shall be paid for by said Assignee.
- 3. The terms and covenants of this assignment shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon us, our respective heirs, legal representatives and assigns.
- 4. We hereby warrant and represent that we have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

IN WITNESS WHEREOF, we have executed and delivered this instrument to said Assignee.

DICERNA PHARMACEUTICALS, INC. ("Assignee")

	Docusigned by.		
Ву: _	Byron Osen		_
Name	: Byron Olsen		_
Title:	Vice President Intelle	ctual P	roperty -
Б	6/22/2020		

By: Bob D. Brown Bob D. BROWN Date: 6/22/2020 WITNESSES:	By: Huryk Dulk Henryk T. DUDEK Date: 6/11/2020 WITNESSES:
Signature:	Signature:
Signature:	Signature:
By: Utsav Saxena Utsav SAXENA	By: Natalie Pursell Natalie PURSELL
Date: 6/11/2020	Date: 6/11/2020
WITNESSES: Signature:	WITNESSES: Signature:
Signature:	Signature:
By: Chung Lai Cheng LAI Cheng LAI	By: Weimin Wang Weimin WANG
Date: 6/11/2020	Date: 6/9/2020
WITNESSES: Signature:	WITNESSES: Signature:
Signature:	Signature:

By: Kachel Storr Rachel STORR Date: 6/9/2020	By: Naim Nayef Naim NAZEF Date: 6/6/2020
WITNESSES:	WITNESSES:
Signature:	Signature:
By: Boyoung kim Boyoung KIM	Signature:
Date: 6/6/2020	
WITNESSES: Signature:	
Signature:	

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26634394.1.BUSINESS

RECORDED: 08/24/2020

PATENT REEL: 053575 FRAME: 0483