504947081 06/06/2018 PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4993828

SUBMISSION TYPE:		NE	NEW ASSIGNMENT			
NATURE OF CONVEYANCE:		AS	ASSIGNMENT			
CONVEYING PARTY	DATA					
		Na	me	Execution Date		
DONALD ARCHIBALD				04/01/2014		
RECEIVING PARTY D	ΔΤΑ					
Name:	KNOPP	KNOPP BIOSCIENCES LLC				
Street Address:	2100 WI	2100 WHARTON STREET				
Internal Address:	SUITE 6	SUITE 615				
City:	PITTSB	URGH				
State/Country:	PENNS	PENNSYLVANIA				
Postal Code:	15203					
PROPERTY NUMBEF	RS Total: 1					
Property Typ	e		Number			
Application Number:	1	1592681	2			
CORRESPONDENCE	DATA					
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<u>PATENT</u>

ASSIGNMENT

WHEREAS, I, DONALD ARCHIBALD (hereinafter "Assignor"), am an inventor of a certain new and useful invention(s) as set forth and disclosed in the patent application(s) listed in in <u>Schedule A</u> attached hereto (hereinafter the "Invention"):

WHEREAS, KNOPP BIOSCIENCES LLC, having an address of 2100 Wharton Street, Suite 615, Pittsburgh, PA 15203 (hereinafter "Assignee"), is desirous of acquiring Assignor's entire right, title and interest in and to said Invention and in and to any and all Letters Patent of the United States and foreign countries that may be obtained therefor.

NOW, THEREFORE, for good and valuable consideration, the receipt for and sufficiency of which is hereby acknowledged, Assignor does hereby sell, assign, transfer and set over unto Assignee, its legal representatives, successors, and assigns, Assignor's entire right, title and interest in and to said Invention as set forth in the scheduled application(s), including any applications which claim priority to the scheduled application(s), any application(s) to which the scheduled application(s) claim priority, and any continuations, continuations-in-part, divisions, registrations, reissues, re-examinations or extensions thereof, whether in the U.S. or any foreign country, and in and to any and all patents of the United States and foreign countries which may be issued for said Invention;

AND for good and valuable consideration, the receipt for and sufficiency of which is hereby acknowledged, Assignor does hereby sell, assign, transfer and set over unto Assignee, its legal representatives, successors, and assigns all rights to claim priority rights deriving from the Invention and scheduled application(s); all causes of action and remedies related to the Invention and scheduled application(s) (including, without limitation, the right to sue for past, present, or future infringement, misappropriate or violation of rights related to any of the foregoing and the right to collect royalties and other payments under or on account of any of the foregoing); and any and all other rights and interests arising out of, in connection with, or in relation to the Invention and scheduled application(s).

UPON SAID CONSIDERATION, Assignor shall not execute any writing or do any act whatsoever conflicting with the terms and conditions of this Assignment, and that Assignor will, at any time upon request, without further or additional consideration, but at the expense of said Assignee, execute such additional assignments and other writings and do such additional acts as said Assignee may deem necessary or desirable to perfect Assignee's enjoyment of this grant, and render all necessary assistance in making application for or obtaining original patents or applications, continuations, continuations-in-part, divisions, registrations, reissues, re-examinations or extensions thereof, whether in the U.S. or any foreign country, for said Invention, and in enforcing any rights or choses in action accruing as a result of such applications or patents, by giving testimony in any and all proceedings or transactions involving such applications or patents, and by executing preliminary statements and other affidavits, it being understood that the foregoing covenant and agreement shall bind and inure to the benefit of the assigns and legal representatives of Assignor and Assignee.

The undersigned hereby grant(s) the firm of PEPPER HAMILTON LLP the power to insert on this Assignment any further identification, including the country, application number, filing date and/or title, which may be necessary or desirable in order to comply with the

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Docket No. 131717.03001

PATENT

rules of the United States Patent and Trademark Office or other patent office for recordation of this document; and

The undersigned requests that any patents that may be issued for said Invention be issued to said Assignee, its legal representatives, successors or assigns, as an owner of my entire right, title and interest in and to said patent and the Invention covered thereby.

Date: (Mm/ 1,2014

Assignor: DONALD ARCHIBALD

ACKNOWLEDGMENT

STATE OF)	ss.
COUNTY OF <u>Dews Jacon</u>)	00.

On this $\underline{1}$ day of $\underline{O(O(1))}$, 2014, before me, a Notary Public, the undersigned officer, personally appeared DONALD ARCHIBALD, to me known (or satisfactorily proven) to be the person named in and who executed the above instrument, and acknowledged to me that he/she executed the same for the uses and purposes therein set forth.

SEAL JOLYNN LA CHANCE Notary Public, State of Connecticus My Commission Excises Nov. 30, 2018

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Notary Public My commission expires

PATENT REEL: 046002 FRAME: 0870

Docket No. 131717.03001

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Agreed and accepted:

البرين والمجور وترجير

Date: 4.12/14

Assignee Knopp Biosciences LLC

ACKNOWLEDGMENT

STATE OF <u>Rennsylvania</u> COUNTY OF <u>Allegheny</u>)) SS:)

On this 2^{++} day of 4^{+} , 2014, before me, a Notary Public, the undersigned officer, personally appeared F.S.L.c.hino,, to me known (or satisfactorily proven) to be the person named in and who executed the above instrument, and acknowledged to me that he/she executed the same for the uses and purposes therein set forth.

SEAL

Notary Public HAM 12/17/2-17 My commission expires ____

COMMONWEALTH OF PENNSYLVANIA NOTARIAL SEAL RACHEL L KOPPER Notary Public PITTSBURGH CITY, ALLEGHENY CNTY My Commission Expires Dec 17, 2017

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Country	Patent Application No.	Filing Date	Title
U.S.	61/771,032	28-Feb-2013	Compositions and Methods for Treating Amyotrophic Lateral Sclerosis in Responders
U.S.	61/772,328	04-Mar-2013	Compositions and Methods for Treating Amyotrophic Lateral Sclerosis in Responders
U.S.	61/786,236	14-Mar-2013	Compositions and Methods for Treating Amyotrophic Lateral Sclerosis in Responders
U.S.	14/194,558	28-Feb-2014	Compositions and Methods for Treating Amyotrophic Lateral Sclerosis in Responders

SCHEDULE A

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RECORDED: 06/06/2018

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