505673970 09/16/2019

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
SHIN-SAN MICHAEL SU	01/09/2014
LENNY DANG	03/19/2018

RECEIVING PARTY DATA

Name:	AGIOS PHARMACEUTICALS, INC.	
Street Address:	88 SIDNEY STREET	
City:	CAMBRIDGE	
State/Country:	MASSACHUSETTS	
Postal Code:	02139	

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15965088

CORRESPONDENCE DATA

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ATTORNEY DOCKET NUMBER:	AGS-039USC3	
NAME OF SUBMITTER:	IOANA DAVIES	
SIGNATURE:	/loana Davies/	
DATE SIGNED:	09/16/2019	

Total Attachments: 6

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PATENT REEL: 050390 FRAME: 0535

Attorney Docket No.: C2081-7039US

ASSIGNMENT

For good and valuable consideration, the sufficiency and receipt of which is hereby acknowledged, I, Shin-San Michael Su of Newton, Massachusetts hereby:

Sell, assign and transfer to <u>Agios Pharmaceuticals</u>, <u>Inc.</u>, a Delaware corporation having a place of business at 38 Sidney Street, Cambridge, Massachusetts 02139, United States of America, its successors, assigns and legal representatives, (collectively hereinafter called "the Assignee"), my entire right, title and interest throughout the world in the inventions and improvements which are subject of an application for the United States Patent entitled:

PYRUVATE KINASE ACTIVATORS FOR USE IN THERAPY

having an effective filing date of May 3, 2012, and assigned U.S. Serial Number 14/115,289, this assignment, including said application, and any and all continuations, continuations-in-part, and divisional applications, and any and all United States and foreign patents (including reissues, reexaminations, extensions), utility models, and design registrations granted for any of said inventions or improvements (including without limitation International Patent Application PCT/US2012/036412, filed May 3, 2012 and entitled PYRUVATE KINASE ACTIVATORS FOR USE IN THERAPY; and U.S. Provisional Application No. 61/482,171 filed May 3, 2011 and entitled METHODS OF USING PYRUVATE KINASE ACTIVATORS), to this assignment, and the right to claim priority based on the filing date of said application under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes; and I authorize the Assignee to apply in all countries in our name or in its own name for patents, utility models, design registrations and like rights of exclusion and for inventor's certificates for said inventions and improvements; and I agree for myself and my respective heirs, legal representatives and assigns, without further compensation to perform such lawful acts and to sign such further applications, assignments, Preliminary Statements and other lawful documents as the Assignee may reasonably request to effectuate fully this assignment, the effectiveness of this assignment including as of the filing date of the above-identified application and any applications from which the above-identified application claims benefit of.

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PATENT REEL: 050390 FRAME: 0536

Attorney Docket No.: C2081-7039US

In the event that the execution date, filing date and/or Application No. are not entered or are incorrect at the time Assignor(s) executed this document, Assignor(s) hereby authorize and request an attorney of Assignee to insert the information or make the correction.

Assignment Page 2 of 3

PATENT REEL: 050390 FRAME: 0537

IN TESTIMONY WHEREOF, I, Shin-San Michael Su, have executed this document on the date

indicated below.

Attorney Docket No: AGS-039US

ASSIGNMENT

For good and valuable consideration, the sufficiency and receipt of which are hereby acknowledged, I, Lenny Dang of Boston, Massachusetts (hereinafter the "Undersigned"), do hereby irrevocably and unconditionally:

CONVEY, ASSIGN AND TRANSFER to Agios Pharmaceuticals, Inc., a Delaware corporation having a place of business at 88 Sidney Street, Cambridge, Massachusetts 02139, United States of America, its successors, assigns and legal representatives (collectively hereinafter the "Assignee"), the Undersigned's entire right, title and interest throughout the world in the inventions and improvements which are subject of an application for the United States Patent entitled PYRUVATE KINASE ACTIVATORS FOR USE IN THERAPY, filed February 11, 2014, and assigned U.S. Serial Number 14/115,289 (issued as U.S. Patent No. 9,193,701 on November 24, 2015), including:

the inventions disclosed in the above-identified application(s);

such application(s), and all divisional, continuing (including continuation-in-part), substitute, renewal, reissue, and all other applications for a patent or patents which have been or shall be filed in the United States (including without limitation International Patent Application No. PCT/US2012/036412, filed May 3, 2012 and entitled PYRUVATE KINASE ACTIVATORS FOR USE IN THERAPY; and U.S. Provisional Application No. 61/482,171, filed May 3, 2011 and entitled METHODS OF USING PYRUVATE KINASE ACTIVATORS), and in all foreign countries and jurisdictions based in whole or in part on any of the said inventions and improvements (including any application for a utility model, design registration(s), and inventor's certificate(s));

the right to claim priority to the above-identified application(s) in relation to subject matter based in whole or in part on the above-identified application(s) and any of the foregoing under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes;

the right to file in my name or in its own name for patents, utility models, design registrations and like rights of exclusion and for inventor's certificate(s) for said inventions and improvements in the United States and all foreign countries under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes; and

the right to all causes of action, remedies, and other enforcement rights related to the above-identified application(s), including without limitation the right to sue for past, present, or future infringement, misappropriation, or violation of any and all rights related to the above-identified application(s) and any of the foregoing, including the right to obtain and collect damages for past, present, or future infringement.

The Undersigned authorizes and requests the U.S. and foreign patent issuing authority to issue any and all United States and foreign patents (including any application for a utility model, design registrations, and inventor's certificate(s)) on the said inventions and improvements to the Assignee.

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Attorney Docket No: AGS-039US

The Undersigned covenants, that when requested and at the reasonable expense of the Assignee, in order to carry out in good faith the intent and purpose of this Assignment, the Undersigned shall (1) execute all provisional, non-provisional, divisional, continuing (including continuation-in-part), substitute, renewal, reissue, and all other patent applications for the inventions and improvements which are subject of the said application(s), as the Assignee may reasonably request to effectuate fully this Assignment; (2) execute all rightful oaths, declarations, assignments, powers of attorney and other papers for the inventions and improvements which are subject of the said application(s); (3) communicate to the Assignee all facts known to the Undersigned relating to the inventions and improvements which are subject of the said application(s), and the history thereof; (4) cooperate with the Assignee in any interference, reexamination, reissue, opposition, dispute, or litigation involving any of the applications or patents for the inventions and improvements which are subject of the said application(s); and (5) take such further actions as the Assignee shall reasonably consider necessary or desirable for vesting title to the said inventions and improvements in the Assignee, or for securing, maintaining and enforcing proper patent protection for the said inventions and improvements.

The Undersigned covenants, that should the execution date, filing date and/or Application Number be not entered or be incorrect at the time the Undersigned executed this document, the Undersigned hereby authorizes and requests an attorney of Assignee to insert the information or make the correction.

IN TESTIMONY WHEREOF, I, Lenny Dang, have executed this document on the date indicated

 $\frac{3/19/18}{\text{Date}}$

Signature of Inventor

30570N

below.

Inventor's City, State of Residence

Assignment Page 2 of 3

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COMMONWEALTH OF MASSACHUSETTS COUNTY OF MIDDLESEX:	S:
personally appeared language have	2018, before me, the undersigned notary public,, proved to me through satisfactory evidence of, to be the person whose cument in my presence.
SEAL DIANE M. RIORDAN Notary Public MY Commission Expires January 6, 2023	a state of the sta
ACCEPTED AND AGREED TO BY ASSIGN	
Signature:	Date: <u>March 12, 2018</u>
Printed name: Min Wang, Ph.D., J. General Counsel	
Title:	

Assignment Page 3 of 3