

## PATENT ASSIGNMENT COVER SHEET

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 Stylesheet Version v1.2

EPAS ID: PAT6354111

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
VARSHA VENKATACHALAM IYER	08/27/2020
CHANDRA AGARWAL PRAKASH	09/11/2020
HUA YANG	07/31/2020
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	AGIOS PHARMACEUTICALS, INC.
<b>Street Address:</b>	88 SIDNEY STREET
<b>City:</b>	CAMBRIDGE
<b>State/Country:</b>	MASSACHUSETTS
<b>Postal Code:</b>	02139
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	16900610
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(617)607-9200
<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>	
<b>Phone:</b>	(617) 449-6590
<b>Email:</b>	cgiordani@mccarter.com
<b>Correspondent Name:</b>	MCCARTER & ENGLISH, LLP
<b>Address Line 1:</b>	265 FRANKLIN STREET
<b>Address Line 4:</b>	BOSTON, MASSACHUSETTS 02110
<b>ATTORNEY DOCKET NUMBER:</b>	128748-01502
<b>NAME OF SUBMITTER:</b>	MEI BAI, PH.D.
<b>SIGNATURE:</b>	/Mei Bai/
<b>DATE SIGNED:</b>	10/16/2020
<b>Total Attachments: 6</b>	
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## ASSIGNMENT

For good and valuable consideration, the sufficiency and receipt of which are hereby acknowledged, I, **Varsha Venkatachalam Iyer of Boston, MA**, having a mailing address of **88 Sidney Street, Cambridge, MA 02139, United States of America** (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, MA 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 **MITAPIVAT THERAPY AND MODULATORS OF CYTOCHROME P450**, filed **June 12, 2020**, and assigned U.S. Serial Number **16/900,610**, 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 U.S. Provisional Application No. 62/861,600, filed June 14, 2019 and entitled MITAPIVAT THERAPY AND MODULATORS OF CYTOCHROME P450), 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.

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, **Varsha Venkatachalam Iyer**, have executed this document on the date indicated below.

Varsha Iyer  
Signature of Inventor

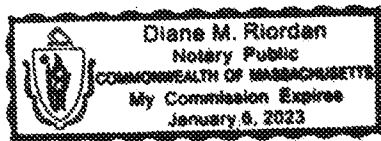
27-AUGUST-2020  
Date

BOSTON, MA  
Inventor's City, State of Residence

COMMONWEALTH OF MASSACHUSETTS:  
COUNTY OF SUFFOLK

On this 27<sup>th</sup> day of August, 2020, before me, the undersigned notary public, personally appeared Varsha V. Iyer, proved to me through satisfactory evidence of identification, which were MA driver's license, to be the person whose name is signed on the preceding or attached document in my presence.

SEAL



Diane M. Riordan  
Notary Public

My Commission Expires 1/6/2023

ACCEPTED AND AGREED TO BY ASSIGNEE: **Agios Pharmaceuticals, Inc.:**

Signature: [Signature]

Date: 2 Oct. 2020

Printed name: Rana Nardou

Title: Sr. Director, IP

## ASSIGNMENT

For good and valuable consideration, the sufficiency and receipt of which are hereby acknowledged, I, **Chandra Agarwal Prakash of 41 Garnet Circle, North Andover, MA 01845, United States of America** (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, MA 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 **MITAPIVAT THERAPY AND MODULATORS OF CYTOCHROME P450**, filed **June 12, 2020**, and assigned U.S. Serial Number **16/900,610**, 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 U.S. Provisional Application No. 62/861,600, filed June 14, 2019 and entitled **MITAPIVAT THERAPY AND MODULATORS OF CYTOCHROME P450**), 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.

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.

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IN TESTIMONY WHEREOF, I, **Chandra Agarwal Prakash**, have executed this document on the date indicated below.

Chandra Prakash  
Signature of Inventor

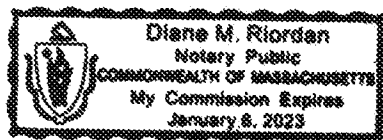
11 Sept 2020  
Date

North Andover, MA  
Inventor's City, State of Residence

COMMONWEALTH OF MASSACHUSETTS:  
COUNTY OF ESSEX

On this 11<sup>th</sup> day of September, 2020, before me, the undersigned notary public, personally appeared Chandra Prakash, proved to me through satisfactory evidence of identification, which were MA driver's license, to be the person whose name is signed on the preceding or attached document in my presence.

SEAL



Diane M. Riordan  
Notary Public

My Commission Expires 1/8/2023

ACCEPTED AND AGREED TO BY ASSIGNEE: **Agios Pharmaceuticals, Inc.:**

Signature: Rena

Date: 2 Oct. 2020

Printed name: Rena Nardone

Title: Sr. Director, IP

## **ASSIGNMENT**

For good and valuable consideration, the sufficiency and receipt of which are hereby acknowledged, I, **Hua Yang of 48 Conant Street, Acton, MA 01720, United States of America** (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, MA 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 **MITAPIVAT THERAPY AND MODULATORS OF CYTOCHROME P450**, filed **June 12, 2020**, and assigned U.S. Serial Number **16/900,610**, including:

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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.

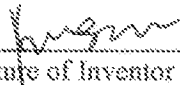
The Undersigned authorizes and requests the U.S. and foreign patent issuing authority to issue any and all United States and foreign patents (including any application for a utility model, design registrations, and inventor's certificate(s)) on the said inventions and improvements to the Assignee.

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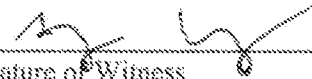
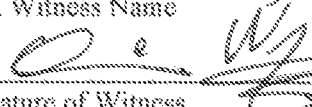
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IN TESTIMONY WHEREOF, I, Hua Yang, have executed this document on the date indicated below.

  
Signature of Inventor  
Acton, MA  
Inventor's City, State of Residence

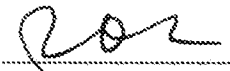
07/31/2020  
Date

Witnessed by:

  
Signature of Witness  
Amy Wang  
Print Witness Name  
  
Signature of Witness  
QIN WANG  
Print Witness Name

07/31/2020  
Date  
Acton, MA, USA  
Witness' City and Country of Residence  
July-31-2020  
Date  
Acton, MA 01720 USA  
Witness' City and Country of Residence

ACCEPTED AND AGREED TO BY ASSIGNEE: Agios Pharmaceuticals, Inc.:

  
Signature  
Rona Nizidome  
Printed name:  
Sr. Director, IP  
Title:

2 Oct. 2020  
Date: