

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT5713496

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
ASTRAZENECA PHARMACEUTICALS LP	02/16/2018
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	ASTRAZENECA UK LIMITED
<b>Street Address:</b>	2 KINGDOM STREET
<b>City:</b>	LONDON
<b>State/Country:</b>	ENGLAND
<b>Postal Code:</b>	W2 6BD
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
<b>Application Number:</b>	16376419
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	(301)576-6932
<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>	301-398-3199
<b>Email:</b>	patents@astrazeneca.com
<b>Correspondent Name:</b>	ASTRAZENECA PHARMACEUTICALS
<b>Address Line 1:</b>	ONE MEDIMMUNE WAY
<b>Address Line 4:</b>	GAITHERSBURG, MARYLAND 20878
<b>ATTORNEY DOCKET NUMBER:</b>	200588-US-CNT
<b>NAME OF SUBMITTER:</b>	DENISE COOPER
<b>SIGNATURE:</b>	/Denise Cooper/
<b>DATE SIGNED:</b>	09/11/2019
<b>Total Attachments: 6</b>	
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source=P2-AZPLP-AZUK#page1.tif	
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**ASSIGNMENT OF PATENT RIGHTS**

THIS ASSIGNMENT is made as of the 22 day of February 2017 (the “Effective Date”) by and between

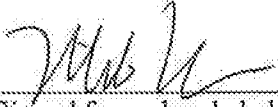
- (1) ASTRAZENECA PHARMACEUTICALS LP, a Delaware limited partnership with registered office address at 1800 Concord Pike, P.O. Box 15437, Wilmington, Delaware 19850-5437, United States of America (“Assignor”); and
- (2) ASTRAZENECA UK LIMITED, a company incorporated in England and Wales under No. 3674842 with registered office address at 2 Kingdom Street, London, England, W2 6BD (“Assignee”).

WHEREAS, Assignor has agreed to assign to Assignee the Assignor’s entire right, title and interest in and to US Provisional Application No. 62/461,983 filed on the 22 day of February 2017 (the “Application”) and in and to the inventions and improvements disclosed in such Application.

NOW THEREFORE IT IS HEREBY AGREED AS FOLLOWS:

1. In consideration of payments made by Assignee to Assignor, receipt of which is hereby acknowledged, the Assignor hereby assigns, with full title guarantee, free from all and any charges or other third party rights, to Assignee absolutely all their right, title and interest in and to the inventions, the Application and any patents or applications derived therefrom; any divisions, continuations and continuations-in-part thereof; any re-issues, re-examinations, or extensions thereof; all rights to claim priority on the basis of the Application and any patents or applications derived therefrom; and the right to file patent applications derived from the Application directly in the name of Assignee or an affiliated company of Assignee (in countries or regions where such filings are permissible) (collectively, the “Rights”), whether now existing or hereafter arising, to the full end of the term for which the Rights have been granted, reissued, re-examined or extended. Assignor acknowledges that Assignee shall have the rights to further assign or otherwise transfer any or all of the Rights to any third party and Assignor waives any right of first refusal that they may have for acquiring such Rights.
2. Assignor agrees with Assignee that their assignment to Assignee includes, but is not limited to, any and all causes of action, claims, demands or other rights, occasioned from or because of any and all past and future infringement of any of the Rights, including all rights to recover damages, profits and injunctive relief for infringement of any of the Rights.
3. Assignor agrees with Assignee that they shall, at the expense of Assignee, execute and sign all such lawful instruments, applications and documents and do all such lawful acts and things as may reasonably be required by Assignee to enable Assignee or its successors, nominees or assigns to:
  - a) secure the vesting of the Rights in Assignee or in its successors, nominees or assigns;
  - b) defeat any challenge to the validity of and resolve any questions concerning the Rights; and
  - c) apply for, prosecute and obtain patent or similar protection in the United States and all other countries of the world for an invention embodied by the Rights, including the right to claim convention priority from such Patents and including, without limitation, cooperating in any proceedings involving examinations, re-examinations, reissues, opposition and cancellation proceedings, interferences, infringement proceedings, court actions and the like.
4. Assignor hereby authorizes the United States Commissioner of Patents and Trademarks and, as appropriate, the corresponding officials of other countries, to record this Assignment.
5. This assignment shall be governed by and construed in accordance with the laws of England and Wales and the parties hereby submit to the exclusive jurisdiction of the English courts.

Any attorney of record is authorized and requested by the execution of this assignment to insert into this assignment any further information necessary for recordation of this document.



Signed for and on behalf of  
ASTRAZENECA PHARMACEUTICALS LP  
Name: Mita Mukherjee  
Title: Authorized Signatory

February 16, 2018  
Date

**ASSIGNMENT OF PATENT RIGHTS**

THIS ASSIGNMENT is made as of the 21 day of April 2017 (the "Effective Date") by and between

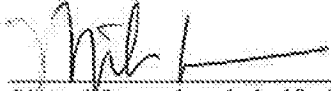
- (1) ASTRAZENECA PHARMACEUTICALS LP, a Delaware limited partnership with registered office address at 1800 Concord Pike, P.O. Box 15437, Wilmington, Delaware 19850-5437, United States of America ("Assignor"); and
- (2) ASTRAZENECA UK LIMITED, a company incorporated in England and Wales under No. 3674842 with registered office address at 2 Kingdom Street, London, England, W2 6BD ("Assignee").

WHEREAS, Assignor has agreed to assign to Assignee the Assignor's entire right, title and interest in and to US Provisional Application No. 62/488,151 filed on the 21 day of April 2017 (the "Application") and in and to the inventions and improvements disclosed in such Application.

NOW THEREFORE IT IS HEREBY AGREED AS FOLLOWS:

1. In consideration of payments made by Assignee to Assignor, receipt of which is hereby acknowledged, the Assignor hereby assigns, with full title guarantee, free from all and any charges or other third party rights, to Assignee absolutely all their right, title and interest in and to the inventions, the Application and any patents or applications derived therefrom; any divisions, continuations and continuations-in-part thereof; any re-issues, re-examinations, or extensions thereof; all rights to claim priority on the basis of the Application and any patents or applications derived therefrom; and the right to file patent applications derived from the Application directly in the name of Assignee or an affiliated company of Assignee (in countries or regions where such filings are permissible) (collectively, the "Rights"), whether now existing or hereafter arising, to the full end of the term for which the Rights have been granted, reissued, re-examined or extended. Assignor acknowledges that Assignee shall have the rights to further assign or otherwise transfer any or all of the Rights to any third party and Assignor waives any right of first refusal that they may have for acquiring such Rights.
2. Assignor agrees with Assignee that their assignment to Assignee includes, but is not limited to, any and all causes of action, claims, demands or other rights, occasioned from or because of any and all past and future infringement of any of the Rights, including all rights to recover damages, profits and injunctive relief for infringement of any of the Rights.
3. Assignor agrees with Assignee that they shall, at the expense of Assignee, execute and sign all such lawful instruments, applications and documents and do all such lawful acts and things as may reasonably be required by Assignee to enable Assignee or its successors, nominees or assigns to:
  - a) secure the vesting of the Rights in Assignee or in its successors, nominees or assigns;
  - b) defeat any challenge to the validity of and resolve any questions concerning the Rights; and
  - c) apply for, prosecute and obtain patent or similar protection in the United States and all other countries of the world for an invention embodied by the Rights, including the right to claim convention priority from such Patents and including, without limitation, cooperating in any proceedings involving examinations, re-examinations, reissues, opposition and cancellation proceedings, interferences, infringement proceedings, court actions and the like.
4. Assignor hereby authorizes the United States Commissioner of Patents and Trademarks and, as appropriate, the corresponding officials of other countries, to record this Assignment.
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Signed for and on behalf of  
ASTRAZENECA PHARMACEUTICALS LP  
Name: Mita Mukherjee  
Title: Authorized Signatory

February 16, 2018  
Date

**ASSIGNMENT OF PATENT RIGHTS**

THIS ASSIGNMENT is made as of the 29 day of November 2017 (the “Effective Date”) by and between


- (1) ASTRAZENECA PHARMACEUTICALS LP, a Delaware limited partnership with registered office address at 1800 Concord Pike, P.O. Box 15437, Wilmington, Delaware 19850-5437, United States of America (“Assignor”); and
- (2) ASTRAZENECA UK LIMITED, a company incorporated in England and Wales under No. 3674842 with registered office address at 2 Kingdom Street, London, England, W2 6BD (“Assignee”).

WHEREAS, Assignor has agreed to assign to Assignee the Assignor’s entire right, title and interest in and to US Provisional Application No. 62/591,823 filed on the 29 day of November 2017 (the “Application”) and in and to the inventions and improvements disclosed in such Application.

NOW THEREFORE IT IS HEREBY AGREED AS FOLLOWS:

1. In consideration of payments made by Assignee to Assignor, receipt of which is hereby acknowledged, the Assignor hereby assigns, with full title guarantee, free from all and any charges or other third party rights, to Assignee absolutely all their right, title and interest in and to the inventions, the Application and any patents or applications derived therefrom; any divisions, continuations and continuations-in-part thereof; any re-issues, re-examinations, or extensions thereof; all rights to claim priority on the basis of the Application and any patents or applications derived therefrom; and the right to file patent applications derived from the Application directly in the name of Assignee or an affiliated company of Assignee (in countries or regions where such filings are permissible) (collectively, the “Rights”), whether now existing or hereafter arising, to the full end of the term for which the Rights have been granted, reissued, re-examined or extended. Assignor acknowledges that Assignee shall have the rights to further assign or otherwise transfer any or all of the Rights to any third party and Assignor waives any right of first refusal that they may have for acquiring such Rights.
2. Assignor agrees with Assignee that their assignment to Assignee includes, but is not limited to, any and all causes of action, claims, demands or other rights, occasioned from or because of any and all past and future infringement of any of the Rights, including all rights to recover damages, profits and injunctive relief for infringement of any of the Rights.
3. Assignor agrees with Assignee that they shall, at the expense of Assignee, execute and sign all such lawful instruments, applications and documents and do all such lawful acts and things as may reasonably be required by Assignee to enable Assignee or its successors, nominees or assigns to:
  - a) secure the vesting of the Rights in Assignee or in its successors, nominees or assigns;
  - b) defeat any challenge to the validity of and resolve any questions concerning the Rights; and
  - c) apply for, prosecute and obtain patent or similar protection in the United States and all other countries of the world for an invention embodied by the Rights, including the right to claim convention priority from such Patents and including, without limitation, cooperating in any proceedings involving examinations, re-examinations, reissues, opposition and cancellation proceedings, interferences, infringement proceedings, court actions and the like.
4. Assignor hereby authorizes the United States Commissioner of Patents and Trademarks and, as appropriate, the corresponding officials of other countries, to record this Assignment.
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Signed for and on behalf of  
ASTRAZENECA PHARMACEUTICALS LP  
Name: Mita Mukherjee  
Title: Authorized Signatory

February 16, 2018

Date