506452499 01/15/2021

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6499269

SUBMISSION TYPE:			NEW ASSIGNMENT			
NATURE OF CONVEYANCE:			ASSIGNMENT			
CONVEYING PARTY	DATA					
			Name	Execution Date		
JOHN PAUL SECRIST					12/07/2017	
EDWARD JOHN HENNESSY					10/09/2017	
RECEIVING PARTY D	ΑΤΑ					
Name:	ASTRA	ASTRAZENECA PHARMACEUTICALS LP				
Street Address:	1800 C	1800 CONCORD PIKE				
Internal Address:	P.O. B	P.O. BOX 15437				
City:	WILMIN	WILMINGTON				
State/Country:	DELAW	DELAWARE				
Postal Code:	19850-	19850-5437				
Application Number:		17095043				
PROPERTY NUMBERS Total: 1 Property Type			Number			
Application Number:		17095043				
CORRESPONDENCE	DATA					
Fax Number: (1		(301)576-6932				
			e-mail address first; if that is u			
<i>using a fax number, i</i> Phone:	-		h at is unsuccessful, it will be se 398-0000	en	it via US Mail.	
			ents@astrazeneca.com			
l l		•	FRAZENECA PHARMACEUTICALS			
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Address Line 4:GAITHERSBURG, MARYLAND 20878						
ATTORNEY DOCKET NUMBER:		200588-US-CNT[2]				
NAME OF SUBMITTER:			DENISE COOPER			
SIGNATURE:			/Denise Cooper/			
DATE SIGNED:			01/15/2021			
Total Attachments: 4				_		
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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

John Paul Secrist, a United States citizen of AstraZeneca R&D Boston, 35 Gatehouse Drive, Waltham, Massachusettes 02451 ("Assignors"); and

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 ("Assignee")

WHEREAS

- A. Assignors have made certain inventions (the "**Inventions**") in respect of which US Provisional Application No. 62/461,983 was filed on February 22, 2017 (the "Application").
- B. Assignce wishes to secure the entire right, title and interest in and to the Inventions and to the Application.

NOW THEREFORE IT IS HEREBY AGREED AS FOLLOWS:

1. In consideration of payments made by Assignee to Assignors, receipt of which is hereby acknowledged, the Assignors hereby confirm that they have assigned, and in so far as there may be any outstanding rights that have not been assigned to the Assignee do hereby assign, 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. Assignors warrant that the Rights are unencumbered. Assignors acknowledge that Assignee shall have the rights to further assign or otherwise transfer any or all of the Rights to any third party and Assignors waive any right of first refusal that they may have for acquiring such Rights.

2. Assignors each hereby agree 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. Assignors each hereby agree 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.

PATENT REEL: 054934 FRAME: 0469 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 the State of Delaware and the parties hereby submit to the exclusive jurisdiction of the Delaware 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.

mailfurit

Aohn Paul Secrist

Dated: December 7, 2017

ASSIGNMENT OF PATENT RIGHTS

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

Edward John Hennessy, a United States citizen of AstraZeneca R&D Boston, 35 Gatehouse Drive, Waltham, Massachusettes 02451 ("Assignors"); and

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 ("Assignee")

WHEREAS

- A. Assignors have made certain inventions (the "Inventions") in respect of which US Provisional Application No. 62/461,983 was filed on February 22, 2017 (the "Application").
- B. Assignee wishes to secure the entire right, title and interest in and to the Inventions and to the Application.

NOW THEREFORE IT IS HEREBY AGREED AS FOLLOWS:

1. In consideration of payments made by Assignee to Assignors, receipt of which is hereby acknowledged, the Assignors hereby confirm that they have assigned, and in so far as there may be any outstanding rights that have not been assigned to the Assignee do hereby assign, 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. Assignors warrant that the Rights are unencumbered. Assignors acknowledge that Assignee shall have the rights to further assign or otherwise transfer any or all of the Rights to any third party and Assignors waive any right of first refusal that they may have for acquiring such Rights.

2. Assignors each hereby agree 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. Assignors each hereby agree 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.

PATENT REEL: 054934 FRAME: 0471 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 the State of Delaware and the parties hereby submit to the exclusive jurisdiction of the Delaware 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.

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Dated: October 9, 2017

Edward John Hennessy