

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT5596043

SUBMISSION TYPE:	NEW ASSIGNMENT	
NATURE OF CONVEYANCE:	ASSIGNMENT	
CONVEYING PARTY DATA		
	Name	Execution Date
	APT THERAPEUTICS INC	03/01/2019
RECEIVING PARTY DATA		
Name:	ASTRAZENECA AB	
Street Address:	SE-151 85	
City:	SODERTALJE	
State/Country:	SWEDEN	
PROPERTY NUMBERS Total: 7		
Property Type	Number	
Patent Number:	7247300	
Patent Number:	7390485	
Patent Number:	8021866	
Patent Number:	8535662	
Patent Number:	8771683	
Application Number:	14666121	
Application Number:	62808613	
CORRESPONDENCE DATA		
Fax Number:	(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>		
Phone:	301-398-3199	
Email:	patents@astrazeneca.com	
Correspondent Name:	ASTRAZENECA PHARMACEUTICALS	
Address Line 1:	ONE MEDIMMUNE WAY	
Address Line 4:	GAITHERSBURG, MARYLAND 20878	
ATTORNEY DOCKET NUMBER:	US PATENTS	
NAME OF SUBMITTER:	DENISE COOPER	
SIGNATURE:	/Denise Cooper/	
DATE SIGNED:	06/28/2019	
Total Attachments: 3		

source=Assignment of rights from APT Therapeutics to AZ AB_signed AZ APT#page1.tif

source=Assignment of rights from APT Therapeutics to AZ AB_signed AZ APT#page2.tif

source=Assignment of rights from APT Therapeutics to AZ AB_signed AZ APT#page3.tif

PATENT

REEL: 049618 FRAME: 0978

ASSIGNMENT OF PATENT RIGHTS

THIS ASSIGNMENT is made as of 1 March 2019 (the "**Effective Date**") by and between

APT THERAPEUTICS INC, a company incorporated in the USA with offices at 1701 Quincy Ave, Unit 21, Naperville, IL 60540, USA ("**Assignor**"); and

ASTRAZENECA AB, a company incorporated in Sweden under No. 556011-7482 whose registered office is at SE-151 85 Södertälje, Sweden ("**Assignee**").

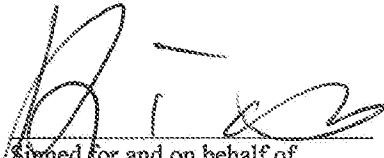
WHEREAS, Assignor has agreed to assign to Assignee the Assignor's entire right, title and interest in and to the patent applications identified in the attached Schedule (the "**Applications**") and in and to the inventions and improvements disclosed in such Applications.

NOW THEREFORE IT IS HEREBY AGREED AS FOLLOWS:

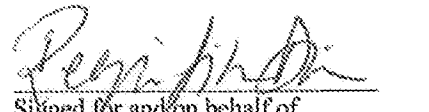
1. For good and valuable consideration made by Assignee to Assignor, receipt of which is hereby acknowledged, the Assignor hereby assigns, with full title guarantee, free from all and any charges or other third party rights (excluding any third party rights owned by US or foreign government institutions by operation of law), to Assignee absolutely its entire right, title and interest in and to the inventions, the Applications 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 Applications and any patents or applications derived therefrom; and the right to file patent applications derived from the Applications 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 it may have for acquiring such Rights.
2. Assignor agrees with Assignee that its 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 it 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 the State of New York, USA, and the parties hereby submit to the exclusive jurisdiction of the courts of the State of New York and the United States District Court for the District of New York.

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
APT Therapeutics Inc
Name: Ridong Chen

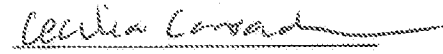
Title: Authorised Signatory


Signed for and on behalf of
AstraZeneca AB
Name: Regina Fritsche-Danielson, PhD

Title: Authorised Signatory, Senior Vice President and
Head of CVRM, Innovative Medicines and Early
Development


Witnessed by Soon Seog Jeong, PhD

Date: 1 March 2019


Witnessed by Cecilia Conradsson

Date: 1 March 2019

THE SCHEDULE**Granted patents:**

Country	Patent number	Expiry date	Patent application number	Effective filing date	Title
US	7,247,300	21 Apr 2025	10/703,780	7 Nov 2003	Therapeutic Use of Soluble CD39L3
US	7,390,485	7 Jul 2026	11/069,543	28 Feb 2005	Design and Therapeutic Use of ADPase Enhanced Apyrases
US	8,021,866	7 Sept 2026	12/145,394	28 Feb 2005	Therapeutic Use of ADPase Enhanced Apyrases
EP	2 133 430	28 Feb 2025	09162974.1	28 Feb 2005	Design and Therapeutic Use of ADPase Enhanced Apyrases
	(validated in Switzerland, Germany, France, United Kingdom and Sweden)				
US	8,535,662	13 Jan 2031	13/522,310	13 Jan 2011	Apyrase Therapy for Bleeding Conditions
US	8,771,683	26 Jan 2031	13/522,311	13 Jan 2011	Therapeutic Apyrase Constructs, Apyrase Agents and Production Methods
CA	2787016	13 Jan 2031	2787016	13 Jan 2011	Therapeutic Apyrase Constructs, Apyrase Agents and Production Methods
EP	2 523 971	13 Jan 2031	11733394.8	13 Jan 2011	Therapeutic Apyrase Constructs, Apyrase Agents and Production Methods
JP	5913130	13 Jan 2031	2012549089	13 Jan 2011	Therapeutic Apyrase Constructs, Apyrase Agents and Production Methods
	(validated in Switzerland, Germany, France, United Kingdom and Ireland)				

Pending applications:

Country	Patent application number	Effective filing date	Title
BR	1120120172433	13 Jan 2011	Therapeutic Apyrase Constructs, Apyrase Agents and Production Methods
CN	201410172357.8	23 Apr 2014	Therapeutic Apyrase Constructs, Apyrase Agents and Production Methods
US	14/666,121	23 Mar 2015	Apyrase Therapy for Fibroproliferative Disorders, Pulmonary Hypertension, and Heart Failure
US	62/808,613	21 Feb 2019	Synergistic and Targeting Compositions for Treatment of Arterial and Venous Thrombosis