PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT6517256

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
SEQUENCE:	1

CONVEYING PARTY DATA

Name	Execution Date
THERAGENE PHARMACEUTICALS, INC.	12/20/2020

RECEIVING PARTY DATA

Name:	SERCAGEN, INC.
Street Address:	10531 4S COMMONS DRIVE, B464
City:	SAN DIEGO
State/Country:	CALIFORNIA
Postal Code:	92127

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15490202

CORRESPONDENCE DATA

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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.

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Correspondent Name: MASCHOFF BRENNAN

Address Line 1: 1389 CENTER DRIVE, SUITE 300

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ATTORNEY DOCKET NUMBER:	S4797.00001
NAME OF SUBMITTER:	JASON W. CROFT
SIGNATURE:	/Jason W. Croft/
DATE SIGNED:	01/26/2021

Total Attachments: 4

source=15490202 3 Assignment Theragene - Sercagen#page1.tif source=15490202 3 Assignment Theragene - Sercagen#page2.tif source=15490202 3 Assignment Theragene - Sercagen#page3.tif source=15490202 3 Assignment Theragene - Sercagen#page4.tif

PATENT 506470480 REEL: 055040 FRAME: 0123

ASSIGNMENT OF PATENT RIGHTS

For good and valuable consideration of the sum of One Dollar to the Assignor in hand paid by the Assignee, the receipt and sufficiency of which is hereby acknowledged, THERAGENE PHARMACEUTICALS, INC., a California corporation, with an address of 9407 PIPILO ST. SAN DIEGO CA 92129 ("Assignor"), agrees to and does hereby irrevocably sell, assign, transfer, and convey unto SERCAGEN, INC., a Delaware corporation, with an address at 10531 4S COMMONS DRIVE, B464, SAN DIEGO, CA 92127 ("Assignee"), or its designees, nunc pro tunc as of the effective date of May 1, 2018, all right, title, and interest that exist today and may exist in the future in and to any and all of the following (collectively, the "Patent Rights"):

- (a) the provisional patent applications, patent applications and patents listed in Appendix A (the "Patents");
- (b) all patents and patent applications (i) to which any of the Patents directly or indirectly claims priority, and/or (ii) for which any of the Patents directly or indirectly forms a basis for priority,;
- (c) all reissues, reexaminations, extensions, continuations, continuations in part, continuing prosecution applications, requests for continuing examinations, divisions, registrations of any item in any of the foregoing categories (a) and (b);
- (d) all national (of any country of origin) and multinational patents, patent applications, and counterparts relating to any item in any of the foregoing categories (a) through (c), including, without limitation, certificates of invention, utility models, industrial design protection, design patent protection, and other governmental grants or issuances;
- (e) all items in any of the foregoing in categories (b) through (d), whether or not expressly listed as Patents in category (a) and whether or not claims in any of the foregoing have been rejected, withdrawn, cancelled, or the like:
- (f) inventions, invention disclosures, and discoveries described in any of the Patents and/or any item in the foregoing categories (b) through (e) that (i) are included in any claim in the Patents and/or any item in the foregoing categories (b) through (e), (ii) are subject matter capable of being reduced to a patent claim in a reissue or reexamination proceeding brought on any of the Patents and/or any item in the foregoing categories (b) through (e), and/or (iii) could have been included as a claim in any of the Patents and/or any item in the foregoing categories (b) through (e);
- (g) all rights to apply in any or all countries of the world for patents, certificates of invention, utility models, industrial design protections, design patent protections, or other governmental grants or issuances of any type related to any item in any of the foregoing categories (a) through (f), including, without limitation, under the Paris Convention for the Protection of Industrial Property, the International Patent Cooperation Treaty, or any other convention, treaty, agreement, or understanding;
- (h) all causes of action (whether known or unknown or whether currently pending, filed, or otherwise) and other enforcement rights under, or on account of, any of the Patents and/or any item in any of the foregoing categories (b) through (g), including, without limitation, all causes of action and other enforcement rights for any of the Patents and/or any item in the foregoing categories (b) through (e) including all rights to pursue
 - (1) damages,
 - (2) injunctive relief, and
 - (3) any other remedies of any kind

for past, current, and future infringement; and

(i) all rights to collect royalties and other payments under or on account of any of the Patents and/or any item in any of the foregoing categories (b) through (h).

PATENT REEL: 055040 FRAME: 0124 Assignor represents, warrants and covenants that:

- (1) Assignor has the full power and authority, and has obtained all third party consents, approvals and/or other authorizations required to enter into this Agreement and to carry out its obligations hereunder, including the assignment of the Patent Rights to Assignee; and
- (2) Assignor owns, and by this document assigns to Assignee, all right, title, and interest to the Patent Rights, including, without limitation, all right, title, and interest to sue for infringement of the Patent Rights. The Patent Rights are free and clear of all liens, claims, mortgages, security interests or other encumbrances, and restrictions. There are no actions, suits, investigations, claims or proceedings threatened, pending or in progress relating in any way to the Patent Rights. There are no existing contracts, agreements, options, commitments, proposals, bids, offers, or rights with, to, or in any person to acquire any of the Patent Rights.

Assignor hereby authorizes the respective patent office or governmental agency in each jurisdiction to issue any and all patents, certificates of invention, utility models or other governmental grants or issuances that may be granted upon any of the Patent Rights in the name of Assignee, as the assignee to the entire interest therein.

Assignor will, at the reasonable request of and at the expense of Assignee and without demanding any further consideration therefore, do all things necessary, proper, or advisable, including without limitation, the execution, acknowledgment, and recordation of specific assignments, oaths, declarations, and other documents on a country-by-country basis, to assist Assignee in obtaining, perfecting, sustaining, and/or enforcing the Patent Rights.

The terms and conditions of this Assignment of Patent Rights will inure to the benefit of Assignee, its successors, assigns, and other legal representatives and will be binding upon Assignor, its successors, assigns, and other legal representatives.

This Assignment shall be governed by, and construed in accordance with, the laws of the United States in respect to patent issues and in all other respects by the laws of the State of California, without giving effect to the conflict of laws rules thereof.

IN WITNESS WHEREOF this Assignment of Patent Rights is executed on the $\underline{20}$ th day of $\underline{\text{Dec}}$, 2020.

ASSIGNOR:

Name: Jon Berglin

(Printed Name)

Title: Authorized Person

THERAGENE PHARMACEUTICALS, INC.

ASSIGNEE:

Name: Jon Berglin (Printed Name)

Title: Authorized Person SERCAGEN, INC.

APPENDIX A: PATENTS

	IP Office	Application	Title	Application Date
1.			EXTENDED ANTEGRADE EPICARDIAL CORONARY INFUSION OF ADENO-ASSOCIATED VIRAL VECTORS FOR	
	US	11778900	GENE THERAPY	07/17/07
2.			EXTENDED ANTEGRADE EPICARDIAL CORONARY	
			INFUSION OF ADENO-ASSOCIATED VIRAL VECTORS FOR	
	US	15/292642	GENE THERAPY	10/13/16
3.			EXTENDED ANTEGRADE EPICARDIAL CORONARY	
	***	<0.000001	INFUSION OF ADENO-ASSOCIATED VIRAL VECTORS FOR	0 77 17 77 10 5
	US	60833324	GENE THERAPY	07/25/06
4.			EXTENDED ANTEGRADE EPICARDIAL CORONARY	
	ATT	2007277202	INFUSION OF ADENO-ASSOCIATED VIRAL VECTORS FOR	7/1//07
	AU	2007277392	GENE THERAPY	7/16/07
5.			EXTENDED ANTEGRADE EPICARDIAL CORONARY	
	CA	2658628	INFUSION OF ADENO-ASSOCIATED VIRAL VECTORS FOR GENE THERAPY	07/16/07
6.	CA	2038028	EXTENDED ANTEGRADE EPICARDIAL CORONARY	0//16/0/
O,			INFUSION OF ADENO-ASSOCIATED VIRAL VECTORS FOR	
	CN	200780028361.5	GENE THERAPY	07/16/07
7.	U14	200760026301.3	EXTENDED ANTEGRADE EPICARDIAL CORONARY	07/10/07
<i>i</i> .			INFUSION OF ADENO-ASSOCIATED VIRAL VECTORS FOR	
	EP	07810511.1	GENE THERAPY	07/16/07
8.	1_/1	07010311.1	EXTENDED ANTEGRADE EPICARDIAL CORONARY	07/10/07
О.			INFUSION OF ADENO-ASSOCIATED VIRAL VECTORS FOR	
	EP	12151812.0	GENE THERAPY	07/16/07
9,			EXTENDED ANTEGRADE EPICARDIAL CORONARY	01720,07
٠,			INFUSION OF ADENO-ASSOCIATED VIRAL VECTORS FOR	
	GB	0716413.0	GENE THERAPY	07/16/07
10.			EXTENDED ANTEGRADE EPICARDIAL CORONARY	
			INFUSION OF ADENO-ASSOCIATED VIRAL VECTORS FOR	
	HK	09108938.9	GENE THERAPY	07/16/07
11.			EXTENDED ANTEGRADE EPICARDIAL CORONARY	
			INFUSION OF ADENO-ASSOCIATED VIRAL VECTORS FOR	
	IL	196541	GENE THERAPY	07/16/07
12.			EXTENDED ANTEGRADE EPICARDIAL CORONARY	
			INFUSION OF ADENO-ASSOCIATED VIRAL VECTORS FOR	
	IN	1082/DELNP/2009	GENE THERAPY	07/16/07
13.			EXTENDED ANTEGRADE EPICARDIAL CORONARY	
			INFUSION OF ADENO-ASSOCIATED VIRAL VECTORS FOR	
	JP	2009-521759	GENE THERAPY	07/16/07
14.			EXTENDED ANTEGRADE EPICARDIAL CORONARY	
			INFUSION OF ADENO-ASSOCIATED VIRAL VECTORS FOR	0.00
	JP	2014-156560	GENE THERAPY	07/31/14
15.			EXTENDED ANTEGRADE EPICARDIAL CORONARY	
	TOD	10 2000 7002714	INFUSION OF ADENO-ASSOCIATED VIRAL VECTORS FOR	07/14/107
	KR	10-2009-7003514	GENE THERAPY	07/16/07
16.			EXTENDED ANTEGRADE EPICARDIAL CORONARY	
	WO	DC/P/FTC000/7/01/100	INFUSION OF ADENO-ASSOCIATED VIRAL VECTORS FOR	07/17/07
17.	WO	PCT/US2007/016129	GENE THERAPY METHOD FOR ENHANCED UPTAKE OF VIRAL VECTORS IN	07/16/07
1/.	TIC	61/030991		03/10/09
18.	US	61/029881	THE MYOCARDIUM METHOD FOR ENHANCED HISTAKE OF VIDAL VECTORS IN	02/19/08
16.	US	12/260953	METHOD FOR ENHANCED UPTAKE OF VIRAL VECTORS IN THE MYOCARDIUM	10/29/08
		1 12/200733	IIIL IVI I OCARDIOIVI	10/29/08
19.			METHOD FOR ENHANCED UPTAKE OF VIRAL VECTORS IN	

PATENT REEL: 055040 FRAME: 0126

	IP Office	Application	Title	Application Date
20.	Office	Application	METHOD FOR ENHANCED UPTAKE OF VIRAL VECTORS IN	Date
20.	US	14/134248	THE MYOCARDIUM	12/19/13
21.	03	14/134240	METHOD FOR ENHANCED UPTAKE OF VIRAL VECTORS IN	12/19/13
21.	US	15/157718	THE MYOCARDIUM	05/18/16
22.	UB	13/13 / / 16	METHOD FOR ENHANCED UPTAKE OF VIRAL VECTORS IN	05/16/10
22.	US	15377757	THE MYOCARDIUM	12/13/16
23.	0.5	100///07	COMPOSITIONS FOR ENHANCED UPTAKE OF VIRAL	12/13/10
23.	НК	11104331.7	VECTORS IN THE MYOCARDIUM	10/29/08
24.	1111	11104331.7	COMPOSITIONS FOR ENHANCED UPTAKE OF VIRAL	10/25/08
24.	AU	2008350903	VECTORS IN THE MYOCARDIUM	10/29/08
25.	710	2000330703	COMPOSITIONS FOR ENHANCED UPTAKE OF VIRAL	10/27/00
25.	CA	2715765	VECTORS IN THE MYOCARDIUM	10/29/08
26.	C/X	2713703	COMPOSITIONS FOR ENHANCED UPTAKE OF VIRAL	10/22/08
20.	CN	200880128178.7	VECTORS IN THE MYOCARDIUM	10/29/08
27.	CIT	200000120170.7	COMPOSITIONS FOR ENHANCED UPTAKE OF VIRAL	10/2//00
27.	EP	08872657.5	VECTORS IN THE MYOCARDIUM	10/29/08
28.	171	00072037.3	COMPOSITIONS FOR ENHANCED UPTAKE OF VIRAL	10/25/00
20.	IL	207632	VECTORS IN THE MYOCARDIUM	10/29/08
29.	7.03	20.002	COMPOSITIONS FOR ENHANCED UPTAKE OF VIRAL	10/23/00
27.	IN	5943/DELNP/2010	VECTORS IN THE MYOCARDIUM	10/29/08
30.		D J 10/12/12/12/14/12/01 O	COMPOSITIONS FOR ENHANCED UPTAKE OF VIRAL	10,23,03
50.	JР	2010-547611	VECTORS IN THE MYOCARDIUM	10/29/08
31.			COMPOSITIONS FOR ENHANCED UPTAKE OF VIRAL	19/22/55
	KR	10-2010-7020528	VECTORS IN THE MYOCARDIUM	10/29/08
32.			COMPOSITIONS FOR ENHANCED UPTAKE OF VIRAL	
	WO	PCT/US2008/081634	VECTORS IN THE MYOCARDIUM	10/29/08
33.			METHODS AND COMPOSITIONS FOR CONSISTENT	
	US	15/490202	INTRACORONARY ADMINISTRATION OF A BIOLOGIC	4/18/17
34.			METHODS AND COMPOSITIONS FOR CONSISTENT	
	US	62/148556	INTRACORONARY ADMINISTRATION OF A BIOLOGIC	4/16/15
35.			METHODS AND COMPOSITIONS FOR CONSISTENT	
	US	62/323937	INTRACORONARY ADMINISTRATION OF A BIOLOGIC	4/18/16
36.			METHODS AND COMPOSITIONS FOR CONSISTENT	
	PCT	PCT/US2017/028152	INTRACORONARY ADMINISTRATION OF A BIOLOGIC	4/18/17
37.			METHODS AND COMPOSITIONS FOR TREATING HEART	
	US	62/104029	FAILURE	1/15/15

RECORDED: 01/26/2021

PATENT REEL: 055040 FRAME: 0127