#### 505551214 06/28/2019

# PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2

EPAS ID: PAT5598015

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

#### **CONVEYING PARTY DATA**

Name	Execution Date
PADMANABH CHIVUKULA	09/01/2017
LUIGI WARREN	09/05/2017
KIYOSHI TACHIKAWA	09/01/2017
JOSEPH E. PAYNE	09/01/2017

### **RECEIVING PARTY DATA**

Name:	ARCTURUS THERAPEUTICS, INC.
Street Address:	10628 SCIENCE CENTER DRIVE
City:	SAN DIEGO
State/Country:	CALIFORNIA
Postal Code:	92121

#### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	15806096

# **CORRESPONDENCE DATA**

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NAME OF SUBMITTER:	MRIDULA P. SHERIN
SIGNATURE:	/Mridula P. Sherin/
DATE SIGNED:	06/28/2019

**Total Attachments: 4** 

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**PATENT** REEL: 049628 FRAME: 0409 505551214

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PATENT REEL: 049628 FRAME: 0410

# ASSIGNMENT

We, the undersigned, **Padmanabh Chivukula**, **Luigi Warren**, **Kiyoshi Tachikawa**, and **Joseph E. Payne**, for good and valuable consideration, the receipt of which is hereby acknowledged, confirm that we have sold and assigned, and do hereby assign, sell and transfer to **Arcturus Therapeutics**, **Inc.**, with offices at **10628 Science Center Drive**, **Suite 200**, **San Diego**, **CA 92121**, and to its successors, assigns and legal representatives, collectively hereinafter referred to as the ASSIGNEE: (1) our entire right, title and interest for the United States of America and in all countries, in and to any and all inventions, discoveries and applications which are disclosed in the application for United States Letters Patent entitled:

Serial No.	Filing Date	Title
14/929,366 (ARC3146US)	01 NOV 2015	MESSENGER UNA MOLECULES AND USES THEREOF
PCT/US2015/058534 (ARC3146WO)	01 NOV 2015	MESSENGER UNA MOLECULES AND USES THEREOF

filed with the U.S. Patent and Trademark Office, including any subsequently filed utility applications, and including any renewals, revivals, reissues, reexaminations, extensions, continuations and divisions thereof and any substitute applications therefor; (2) the full and complete right to file patent applications in the name of the ASSIGNEE, its designee, or in my/our names as the ASSIGNEE, or its designee's election, on the aforesaid inventions, discoveries and applications in all countries of the world; (3) the entire right, title and interest in and to any Letters Patent which may issue thereon in the United States or in any country, and any renewals, revivals, reissues, reexaminations and extensions thereof, and any patents of confirmation, registration and importation of the same; and (4) the entire right, title and interest in all Convention and Treaty Rights of all kinds thereon, including without limitation all rights of priority in any country of the world, in and to the above inventions, discoveries and applications.

We hereby authorize and request the competent authorities to grant and to issue any and all such Letters Patent in the United States and throughout the world to the ASSIGNEE of the entire right, title and interest therein, as fully and entirely as the same would have been held and enjoyed by us had this assignment, sale and transfer not been made.

We agree, at any time, upon the request of the ASSIGNEE, to execute and to deliver to the ASSIGNEE any additional applications for patents for said inventions and discoveries, or any part or parts thereof, and any applications for patents of confirmation, registration and importation based on any Letters Patent issuing on said inventions, discoveries, or applications and divisions, continuations, renewals, revivals, reissues, reexaminations and extensions thereof.

PATENT REEL: 04922 FRAME: 0450 First Inventor: Padmanabh Chivukula et al Application Nos.: 14/929,366; PCT/US2015/058534

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We further agree at any time to execute and to deliver upon request of the ASSIGNEE such additional documents, if any, as are necessary or desirable to secure patent protection on said inventions, discoveries and applications throughout all countries of the world, and otherwise to do the necessary to give full effect to and to perfect the rights of the ASSIGNEE under this Assignment, including the execution, delivery and procurement of any and all further documents evidencing this assignment, transfer and sale as may be necessary or desirable.

We hereby covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment.

We further covenant that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said invention and said Letters Patent and legal equivalents as may be known and accessible and will testify as to the same in any interference, litigation or proceeding related thereto and will promptly execute and deliver to ASSIGNEE or its legal representatives any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue and enforce said application, said invention and said Letters Patent and said equivalents thereof which may be necessary or desirable to carry out the purposes thereof.

. Arriver

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Date: September 1, 2017		1///	
•	Signature of: Padmanabh Chivukula		
IN WITNESS WHEREOF, I,	Jennifer Perkins	, hereby declare	
	Name of Witness		
that I was personally present and di assignment.	d see the above named person du	ly sign and execute the	
Juniler Perkins			
Signiture of Vitness			
Date: September 1, 2017			

First Inventor: Padmanabh Chivukula et al Application Nos.: 14/929,366; PCT/US2015/058534

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Date: September 1, 2017	Signature of: Boseph E. Payne		
IN WITNESS WHEREOF, I,		hereby declare	
that I was personally present and dicassignment.  Signature of Witness	d see the above named person du	ly sign and execute the	
Date: September 1, 2017	<u>.</u>		
Date: <u>September 1, 2017</u>	<u>(                                    </u>		
IN WITNESS WHEREOF, I,that I was personally present and did	Name of Witness	, hereby declare	
assignment.  Signature of Witness  Date: September 1, 2017	manunda de la companya della companya della companya de la companya de la companya della company		

First Inventor: Padmanabh Chivukula et al Application Nos.: 14/929,366; PCT/US2015/058534

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Date: 9/5/17		4747	and the second s
	Sign	ature of: Lulgi Warren	<b>L</b> .
IN WITNESS WHEREOF, I,	Sara	Vukojevic	, hereby declare
that I was personally present and assignment.		ne of Witness e named person duly sign	and execute the
1 ///	·		
Signature of <b>Viness</b>		••••	
Date: 9/5/17		i a	