

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
Stylesheet Version v1.2

EPAS ID: PAT4981256

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
DARREN H. WAKEFIELD	05/11/2018
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	ARROWHEAD PHARMACEUTICALS, INC.
<b>Street Address:</b>	225 SOUTH LAKE AVENUE
<b>Internal Address:</b>	SUITE 1050
<b>City:</b>	PASADENA
<b>State/Country:</b>	CALIFORNIA
<b>Postal Code:</b>	91101
<b>PROPERTY NUMBERS Total: 1</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	15766036
<b>CORRESPONDENCE DATA</b>	
<b>Fax Number:</b>	
<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>	608-316-3984
<b>Email:</b>	patents@arrowheadpharma.com
<b>Correspondent Name:</b>	ROBERT MICHAEL TEIGEN
<b>Address Line 1:</b>	502 S. ROSA ROAD
<b>Address Line 4:</b>	MADISON, WISCONSIN 53719
<b>ATTORNEY DOCKET NUMBER:</b>	41790-0063US1
<b>NAME OF SUBMITTER:</b>	ROBERT MICHAEL TEIGEN
<b>SIGNATURE:</b>	/Robert Michael Teigen/
<b>DATE SIGNED:</b>	05/29/2018
<b>Total Attachments: 2</b>	
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## ASSIGNMENT

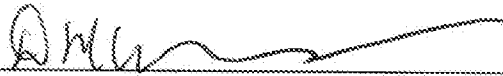
For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I, Darren H. Wakefield, of Fitchburg, Wisconsin, hereby assign to: ARROWHEAD PHARMACEUTICALS, INC., a corporation of Delaware, having a place of business located at 225 South Lake Avenue, Suite 1050, Pasadena, California, 91101; and its successors and assigns (collectively hereinafter called "the Assignee"), the entire right, title, and interest throughout the world in the inventions and improvements which are the subject of and described and/or claimed in a provisional application for United States Patent, entitled "**RNAi Agents for Hepatitis B Virus Infection**" filed on April 5, 2018, and assigned U.S. Serial Number **15/766,036**; this assignment including said application, any and all United States and foreign patents, utility patents and models, continuations, continuations-in-part, divisionals, reexaminations, reissues, and design registrations granted for any of said inventions or improvements, and the right to claim priority based on the filing date of said application under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes; and this assignment also including, without limitation, any claims (known or unknown, suspected or unsuspected) of any nature that we have or may have against any party for infringement of any of the patents and patent applications listed herein, and the right to sue for past infringement and to recover and retain damages and profits in respect thereof; and

I authorize the Assignee to apply in all countries in our name or in its own name for patents, utility models, design registrations, and like rights of exclusion and for inventors' certificates for said inventions and improvements; and

I hereby covenant and agree that I will communicate to the Assignee or nominees all facts known to me pertaining to said inventions and improvements, and I agree for myself and my respective heirs, legal representatives, and assigns, without further compensation to perform such lawful acts and to sign such further applications, assignments, reissues, Preliminary Statements, and other lawful documents, testify in all legal proceedings, make all rightful oaths and declarations, and in general perform or cause to be performed all lawful acts necessary or proper to aid the Assignee or nominees in obtaining, maintaining, and enforcing all lawful patent protection for the inventions and improvements in the United States and in foreign countries; and

I hereby covenant that I have the full right to convey the entire right, title, and interest herein assigned and that I have not executed and will not execute any agreement in conflict herewith.

IN WITNESS WHEREOF, I hereto set my hand and seal at Fitchburg, Wisconsin, this  
11<sup>th</sup> day of MAY, 2018.

  
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Darren H. Wakefield

WITNESSES:

Caroline A. Christian of Madison, WI  
CAROLINE A. CHRISTIAN

David L. Christian, III of Madison, WI  
DAVID L. CHRISTIAN, III