PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3977313

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
ARROWHEAD MADISON INC.	06/20/2016

RECEIVING PARTY DATA

Name:	ARROWHEAD PHARMACEUTICALS, INC.	
Street Address:	225 SOUTH LAKE AVENUE	
Internal Address:	SUITE 1050	
City:	PASADENA	
State/Country:	CALIFORNIA	
Postal Code:	91101	

PROPERTY NUMBERS Total: 1

Property Type	Number	
Application Number:	14746070	

CORRESPONDENCE DATA

Fax Number:

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.

Phone: 608-316-3896

Email: patents@arrowheadpharma.com

Correspondent Name: KIRK EKENA

Address Line 1: 465 SCIENCE DRIVE

Address Line 2: SUITE C

Address Line 4: MADISON, WISCONSIN 53711

ATTORNEY DOCKET NUMBER:	30620 US3
NAME OF SUBMITTER:	KIRK EKENA
SIGNATURE:	/Kirk Ekena/
DATE SIGNED:	07/26/2016

Total Attachments: 7

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ASSIGNMENT

This Patent Assignment (Assignment) is made and entered into as of June 17, 2016, whereby Arrowhead Madison Inc. (Assignor), a corporation of the State of Delaware, United States of America, having its principal place of business at 465 Science Drive, Ste. C, Madison, Wisconsin, United States of America, hereby irrevocably and unconditionally assigns, grants, conveys, and transfers to

Arrowhead Pharmaceuticals, Inc. (Assignce) 225 South Lake Ave., Ste. 1050, Pasadena, California 91101

all of Assignor's right, title and interest for all countries of the world in and to the patents and applications for patents listed in **Schedule A** and the inventions described and claimed therein, as well as in any subsequent application(s) and patents that issue therefrom in all countries of the world, which subsequent application(s) claims priority to any of the patents or patent applications listed in **Schedule A**.

The present assignment is for, but is not limited to, the following countries and is for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged:

Argentina, Australia, Austria, Belgium, Brazil, Canada, Chile, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Israel, Italy, Japan, Kazakhstan, Korea, Luxembourg, Mexico, Monaco, Netherlands, New Zealand, Norway, Pakistan, People's Republic of China, Philippines, Poland, Portugal, Russia, Saudi Arabia, South Africa, Spain, Sweden, Switzerland, Taiwan, United Kingdom of Great Britain and Northern Ireland, Ukraine, Uruguay, United States, Venezuela.

Assignor hereby irrevocably and unconditionally grants, conveys, transfers, and assigns to Assignee (i) all of Assignor's right, title, and interest in and to the patents and the patent applications set forth on Schedule A and the inventions claimed therein, including the rights to file, prosecute, obtain issuance of, maintain and enforce U.S., foreign or international counterparts thereof, and continuations, continuations-in-part, divisions, extensions, reissues, reexaminations, and renewals of any of the foregoing, and other patent applications that claim the inventions claimed in such applications and have a right of priority thereto, including all rights in any patents issuing on any of the foregoing (collectively, the Assigned Patent Rights); (ii) 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 Assigned Patents Rights, including, without limitation, all causes of action and other enforcement rights for (A) damages, (B) injunctive relief, (C) inventorship rights and (D) any other remedies of any kind for past, current and future infringement; and (iii) rights to collect royalties or other payments under or on account of any of the Assigned Patent Rights, the same to be held by Assignee for Assignee's own use and enjoyment, and for the use and enjoyment of Assignee's successors, assigns and other legal representatives, as fully and entirely as the same would have been held and enjoyed by Assignor if this Assignment had not been made; together with all rights to income, royalties, and license fees deriving from the Assigned Patent Rights, causes of actions, claims for damages, and demands or other rights for, or arising from, any past, present, and future infringement or other violation of the Assigned Patent Rights, and the right to sue for and collect such past, present and future damages, as permitted under the applicable laws for any jurisdiction or country in which such claims may be asserted for the use and benefit of Assignee and its successors, assigns and other legal representatives.

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Assignor agrees to execute any additional assignments and writings as well as to perform any additional acts necessary to enable Assignee to enjoy the full rights of the present Assignment and perfect Assignee's right, title and interest throughout the world in all Assigned Patent Rights. In the event Assignee is unable for any reason to secure Assignor's signature on any document needed to perfect the transfer of ownership of the Assigned Patent Rights, Assignor hereby irrevocably designates and appoints Assignee and its duly authorized officers and agents as Assignor's agent and attorney-in-fact to act for and on Assignor's behalf to execute and file such documents, with the same legal force and effect as if executed by Assignor.

Assignor represents and warrants that it has the right and authority to make this Assignment, free and clear of any lien, encumbrance, security interest, or any other restriction on transfer, and that this Assignment is not contrary to any current or prior obligations of Assignor.

If any term, provision, covenant or restriction of this Assignment is held by a court of competent jurisdiction or other Governmental authority to be invalid, void or unenforceable, the remainder of the terms, provisions, covenants and restrictions of this Assignment shall remain in full force and effect and shall in no way be affected, impaired or invalidated.

[REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK; SIGNATURE PAGE FOLLOWS]

[SIGNATURE PAGE TO ASSIGNMENT]

IN WITNESS WHEREOF, Assignee and Assignor have each executed this Assignment, or have caused this Assignment to be executed in its behalf by a representative duly authorized, all as of the date first above set forth.

Madison, Wisconsin, U.S.A.

ARROWHEAD MÀDISÔNAÑC

(Assignor)

By:

David Lewis

Chief Scientific Officer

ACKNOWLEDGMENT

State of Wisconsin County of Dane

On this 2016 day of _______, 2016, before me personally appeared David Lewis to me known to be the person described in the foregoing Assignment, who acknowledged that he executed the foregoing Assignment on behalf of Arrowhead Madison Inc., and that he is empowered to execute the foregoing Assignment and to convey the rights granted thereunder.

Kirk Ekena, Notary Public

My commission expires 12 March 2017

[SIGNATURE PAGE TO ASSIGNMENT]

Pasadena, California, U.S.A.	ARROWHEAD PHARMACEUTICALS, INC. (Assignee) By:	
	Patrick C. O'Brien	
	General Counsel	
ACK State of California County of Los Angeles	KNOWLEDGMENT	
On this day of, 2016, before me personally appeared Pat O'Brien to me known to be the person described in the foregoing Assignment, who acknow that he executed the foregoing Assignment on behalf of Arrowhead Pharmaceuticals, It that he is empowered to execute the foregoing Assignment and to convey the rights thereunder.		
	Can Same had Dage	
	<u>See whicked Case</u> Mary Therese Mumolo	
	Notary Public	

Notary Public

My commission expires November 12, 2016

CALIFORNIA ALL- PURPOSE CERTIFICATE OF ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California	}
County of Las Angeles	
, see.	Mary Therese Marriolo Notary Public.
name(s) is/are subscribed to the within he/she/they executed the same in his/h	factory evidence to be the person(s) whose instrument and acknowledged to me that her/their authorized capacity(ies), and that by hent the person(s), or the entity upon behalf of
I certify under PENALTY OF PERJUR' the foregoing paragraph is true and co	Y under the laws of the State of California that rrect.
WITNESS my hand and official seal,	Commission No. 1998080 Z NOTARY PUBLIC-CALIFORNIA LOS ANGELES COUNTY My Comm. Expires NOVEMBER 12, 2018 Notary Public Seal)
##	
ADDITIONAL OPTIONAL INFORMATI	INSTRUCTIONS FOR COMPLETING THIS FORM This form complies with current California statutes regarding notary wording and,
DESCRIPTION OF THE ATTACHED DOCUMENT	if needed, should be completed and attached to the document. Acknowledgments from other states may be completed for documents being sent to that state so long
A carl a sum a se	as the wording does not require the California notary to violate California notary
(Title or description of attached document)	 law. State and County information must be the State and County where the document signer(s) personally appeared before the notary public for acknowledgment. Date of notarization must be the date that the signer(s) personally appeared which
(Title or description of attached document continued)	must also be the same date the acknowledgment is completed.
Number of Pages 6 Document Date 06/17/16	 The notary public must print his or her name as it appears within his or her commission followed by a comma and then your title (notary public). Print the name(s) of document signer(s) who personally appear at the time of notarization.
CAPACITY CLAIMED BY THE SIGNER	• Indicate the correct singular or plural forms by crossing off incorrect forms (i.e.
☐ Individual (s)	he/she/they, is /are) or circling the correct forms. Failure to correctly indicate this information may lead to rejection of document recording.
M Corporate Officer	 The notary seal impression must be clear and photographically reproducible.
General Counsel (Tille)	Impression must not cover text or lines. If seal impression smudges, re-seal if a sufficient area permits, otherwise complete a different acknowledgment form.
☐ Partner(s)	 Signature of the notary public must match the signature on file with the office of
☐ Attorney-in-Fact	the county clerk. Additional information is not required but could help to ensure this

Trustee(s)

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acknowledgment is not misused or attached to a different document.

corporate officer, indicate the title (i.e. CEO, CFO, Secretary).

Securely attach this document to the signed document with a staple.

Indicate title or type of attached document, number of pages and date. Indicate the capacity claimed by the signer. If the claimed capacity is a

PATENT

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Schedule A

Docket Number	Filling Date	Application Number	Publication Number	Patent Number
25421 US2	17-Aug-2007	11840468	US-2008-0152661-A1	8,137,695
25421 US3	12-Feb-2012	13368796	US-2012-0230938-A1	8,658,211
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25751 US6	12-Jan-2004	10755785	US-2004-0161463-A1	7,022,525
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25768 US1	27-Aug-2002	10229786	US-2010-0120152-A1	8,021,875
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25776 US1	5-Feb-2004	10772502	US-2004-0156909-A1	7,682,626
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