

## PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1  
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EPAS ID: PAT3363977

<b>SUBMISSION TYPE:</b>	NEW ASSIGNMENT
<b>NATURE OF CONVEYANCE:</b>	ASSIGNMENT
<b>CONVEYING PARTY DATA</b>	
<b>Name</b>	<b>Execution Date</b>
GREGORY HINKLE	11/10/2010
SATYANARAYANA KUCHIMANCHI	11/10/2010
STUART MILSTEIN	11/10/2010
TRACY S. ZIMMERMANN	11/10/2010
<b>RECEIVING PARTY DATA</b>	
<b>Name:</b>	ALNYLAM PHARMACEUTICALS, INC.
<b>Street Address:</b>	300 THIRD STREET
<b>City:</b>	CAMBRIDGE
<b>State/Country:</b>	MASSACHUSETTS
<b>Postal Code:</b>	02142
<b>PROPERTY NUMBERS Total: 4</b>	
<b>Property Type</b>	<b>Number</b>
Application Number:	61288137
Application Number:	13363493
Application Number:	13363504
Application Number:	14054166
<b>CORRESPONDENCE DATA</b>	
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<b>ATTORNEY DOCKET NUMBER:</b>	PAT053960 INV TO ALNYLAM
<b>NAME OF SUBMITTER:</b>	BETH O'BRIEN
<b>SIGNATURE:</b>	/Beth O'Brien/
<b>DATE SIGNED:</b>	05/21/2015

**Total Attachments: 5**

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(joint)

Patent Case PAT053960

### ASSIGNMENT

For good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, we

Gregory HINKLE	citizen of the United States of America	Ainylam Pharmaceuticals, Inc. 300 Third Street Cambridge, MA 02142 USA
Satyanarayana KUCHIMANCHI	citizen of the United States of America	Ainylam Pharmaceuticals, Inc. 300 Third Street Cambridge, MA 02142 USA
Stuart MILSTEIN	citizen of the United States of America	Ainylam Pharmaceuticals, Inc. 300 Third Street Cambridge, MA 02142 USA
Tracy S. ZIMMERMANN	citizen of the United States of America	Ainylam Pharmaceuticals, Inc. 300 Third Street Cambridge, MA 02142 USA

do hereby sell, assign and transfer to Ainylam Pharmaceuticals, Inc., a company organized under the laws of the United States of America, 300 Third Street, Cambridge, MA 02142, USA, (hereinafter referred to as the "ASSIGNEE") and its successors, assigns and legal representatives, all of my right, title and interest for all countries of the world in and to (1) all of my inventions and discoveries described in the patent application(s) titled

#### ORGANIC COMPOSITIONS TO TREAT HSF1-RELATED DISEASES

and filed in the United States Patent and Trademark Office on \_\_\_\_\_, 20\_\_ and accorded Application Number \_\_\_\_\_ \* and/or filed in the RO/ \_\_\_\_\_ on \_\_\_\_\_, 20\_\_ and accorded International Patent Application Number PCT/ \_\_\_\_\_ \*. (2) the patent application(s) identified in (1), (3) all national stages of any international patent application identified in (1), (4) all other patent applications in all countries and regions claiming the priority of the provisional or non-provisional patent application filed in the United States Patent and Trademark Office on December 18, 2009 and accorded Application Number 61/288,137, (5) for all patent applications, all rights of priority based upon the United States patent application identified in (4) in all countries and regions under the Paris Convention for the Protection of Industrial Property, the Inter-American Convention relating to Inventions, Patents, Designs, and Industrial Models and all other international agreements to which the United States now is or hereafter becomes a signatory and, if the United States patent application identified in (4) is a provisional patent application, under 35 USC 119(e) (including the right to file patent applications on said inventions and discoveries in the names of ASSIGNEE or their designees or in our names, at their election and in accordance with applicable law in all countries and regions), (6) all continuations and divisions of any United States patent application or international patent application designating the United States identified in (1), any national stages of any international application identified in (1) and any patent applications within the scope of (4) (including further continuations and divisions such as, but not limited to, continuations of continuations and continuations of divisions), ((2)-(4) and (6) hereinafter referred to collectively as "patent applications"), (7) all patents that are granted on any of said patent applications, (8) all registrations and confirmations of, and importation certificates based upon, one or more of said patents and applications for such registrations, confirmations and importation certificates and (9) all reissues, renewals and extensions of said patents, registrations, confirmations and importation certificates, reexamination certificates issued for

said patents and supplementary protection certificates based upon said patents and applications for such reissues, renewals, extensions, reexamination certificates and supplementary protection certificates, the same to be held and enjoyed by said ASSIGNEE and their successors, assigns and legal representatives to the full ends of the terms for which said patents, registrations, confirmations, importation certificates, reexamination certificates, supplementary protection certificates, reissues, renewals and extensions may be granted, as fully and entirely as the same would have been held and enjoyed by us if this sale, assignment and transfer had not been made.

\*We hereby authorize ASSIGNEE and their representatives to insert in this Assignment the filing date(s) and Application Number(s) of said patent application(s) when notified thereof.

And we hereby covenant and agree that we will, at any time, (i) upon the request, but at the expense, of ASSIGNEE or their successors, assigns or legal representatives execute and deliver all documents that may be necessary or desirable to perfect the title to the foregoing inventions and discoveries, patent applications, patents, registrations, confirmations, importation certificates, reissues, renewals, extensions, reexamination certificates, supplementary protection certificates and applications within the scope of (8) and (9) in ASSIGNEE or their successors, assigns or legal representatives, including the execution and procurement of all further documents evidencing this sale, assignment and transfer as may be necessary or desirable for recording the same in the patent office or other intellectual property office, agency or the like of any country or region; (ii) upon the request, but at the expense, of ASSIGNEE or their successors, assigns or legal representatives execute all additional patent applications within the scope of (3), (4) and (6) and all applications within the scope of (8) or (9) and (iii) make all rightful oaths and declarations and do all lawful acts requisite for procuring the same or for aiding therein, without further compensation, but at the expense of ASSIGNEE or their successors, assigns or legal representatives.

This Assignment is effective as from the earliest priority date as stated above.

Executed this 10 day of Nov, 2010

[Signature] L.S.  
Gregory HINKLE

# ACKNOWLEDGEMENT

State of MA )  
 ) s.s.:  
County of Middlesex )

On this 10 day of November, 2010, personally appeared before me Gregory Hinkle to me known and known by me to be the same person described in and who executed the foregoing Assignment and acknowledged that (s)he executed the same of his (her) own free will for the purpose set forth.

(Seal)

[Signature]  
Notary Public



LAURA A. RYAN  
Notary Public  
Commonwealth of Massachusetts  
My Commission Expires  
October 14, 2016

**PATENT**

**REEL: 035690 FRAME: 0538**

Executed this 10 day of November, 2010

Satyanarayana Kuchimanchi L.S.  
Satyanarayana KUCHIMANCHI

ACKNOWLEDGEMENT

State of MA )  
 ) s.s.:  
County of Middlesex )

On this 10 day of November, 2010, personally appeared before me  
Satyanarayana Kuchimanchi to me known and known by me to be the same person described  
in and who executed the foregoing Assignment and acknowledged that (s)he executed the same of his (her)  
own free will for the purpose set forth.

(Seal)

Laura A. Ryan  
Notary Public  
LAURA A. RYAN  
Notary Public  
Commonwealth of Massachusetts  
My Commission Expires  
October 14, 2016

Executed this 10 day of November, 2010

Stuart Milstein L.S.  
Stuart MILSTEIN

ACKNOWLEDGEMENT

State of MA )  
 ) s.s.:  
County of Middlesex )

On this 10 day of November, 2010, personally appeared before me  
Stuart Milstein to me known and known by me to be the same person described  
in and who executed the foregoing Assignment and acknowledged that (s)he executed the same of his (her)  
own free will for the purpose set forth.

(Seal)

Laura A. Ryan  
Notary Public  
LAURA A. RYAN  
Notary Public  
Commonwealth of Massachusetts  
My Commission Expires  
October 14, 2016

Executed this 10 day of November, 2010

Tracy S. Zimmermann L.S.  
Tracy S. ZIMMERMANN

ACKNOWLEDGEMENT

State of MA )  
 ) s.s.:  
County of Middlesex )

On this 10 day of November, 2010 personally appeared before me  
Tracy S. Zimmermann to me known and known by me to be the same person described  
in and who executed the foregoing Assignment and acknowledged that (s)he executed the same of his (her)  
own free will for the purpose set forth.

(Seal)

Laura A. Ryan  
Notary Public



LAURA A. RYAN  
Notary Public  
Commonwealth of Massachusetts  
My Commission Expires  
October 14, 2016

ACCEPTANCE OF ASSIGNMENT

With reference to the Assignment to Ainylam Pharmaceuticals, Inc., of an invention entitled "ORGANIC COMPOSITIONS TO TREAT HSF1-RELATED DISEASES" signed by Gregory HINKLE, Satyanarayana KUCHIMANCHI, Stuart MILSTEIN and Tracy S. ZIMMERMANN; this will certify that Ainylam Pharmaceuticals, Inc., accepts such Assignment.

Ainylam Pharmaceuticals, Inc.

By:

Name:

Function:

Date:

November 12, 2010

Steve Bessone

V.P. Intellectual Property

11/12/2010



LAURA A. STAN  
Notary Public  
Commonwealth of Massachusetts  
My Commission Expires  
October 14, 2016