

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
 Stylesheet Version v1.2

EPAS ID: PAT3358427

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT
CONVEYING PARTY DATA	
Name	Execution Date
ALNYLAM PHARMACEUTICALS, INC.	04/07/2011
RECEIVING PARTY DATA	
Name:	NOVARTIS AG
Street Address:	LICHTSTRASSE 35
City:	BASEL
State/Country:	SWITZERLAND
Postal Code:	4056
PROPERTY NUMBERS Total: 6	
Property Type	Number
Application Number:	61327379
Application Number:	61333398
Application Number:	13355879
Application Number:	13355903
Application Number:	13355930
Application Number:	13614836
CORRESPONDENCE DATA	
Fax Number:	(617)871-3392
<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>	
Phone:	6178717917
Email:	beth.obrien@novartis.com
Correspondent Name:	NIBR
Address Line 1:	700 MAIN STREET
Address Line 4:	CAMBRIDGE, MASSACHUSETTS 02139
ATTORNEY DOCKET NUMBER:	PAT054121 ALNYLAM TO NAG
NAME OF SUBMITTER:	BETH O'BRIEN
SIGNATURE:	/Beth O'Brien/
DATE SIGNED:	05/18/2015
Total Attachments: 4	

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(joint)

Patent Case PAT054121

ASSIGNMENT

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

Alnylam Pharmaceuticals, Inc.
300 Third Street
Cambridge, MA 02142
USA

do hereby sell, assign and transfer to Novartis AG, a company organized under the laws of the Swiss Confederation, of Lichtstrasse 35, 4056 Basel, Switzerland, (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 BETA-ENaC-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 April 23, 2010 and accorded Application Number 61/327379 and filed in the United States Patent and Trademark Office on May 11, 2010 and accorded Application Number 61/333398, (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

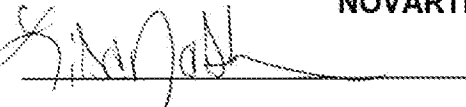

PATENT
REEL: 035663 FRAME: 0465

Case No. PAT054121

ACCEPTANCE OF ASSIGNMENT

With reference to the Assignment to **NOVARTIS AG** of an invention entitled "**ORGANIC COMPOSITIONS TO TREAT BETA-ENaC-RELATED DISEASES**" signed by **Amylam Pharmaceuticals, Inc.**; this will certify that **NOVARTIS AG** accepts such Assignment.

NOVARTIS AG

By:		
Name:	<u>Lisa Nash</u>	<u>Nafra Bates</u>
Function:	<u>Authorized Signatory</u>	<u>Authorized Signatory</u>
Date:	<u>April 11, 2011</u>	

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

CIVIL CODE § 1189

State of California

County of Alameda

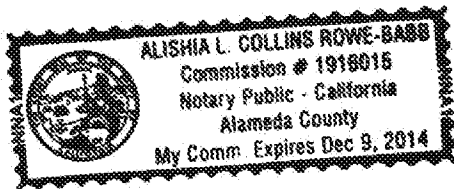
On April 11, 2011 before me, Alishia L. Collins Rowe-Bass, Public Notary

personally appeared Lisa Nash and Nafsa Bates

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.



Signature: Alishia L. Collins Rowe-Bass
Signature of Notary Public

Place Notary Seal Above

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

Description of Attached Document

Title or Type of Document: _____

Document Date: _____ Number of Pages: _____

Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: _____

Corporate Officer — Title(s): _____

Individual

Partner — Limited General

Attorney in Fact

Trustee

Guardian or Conservator

Other: _____

Signer Is Representing: _____

RIGHT THUMBPRINT OF SIGNER

Top of thumb here

[Empty box for thumbprint]

Signer's Name: _____

Corporate Officer — Title(s): _____

Individual

Partner — Limited General

Attorney in Fact

Trustee

Guardian or Conservator

Other: _____

Signer Is Representing: _____

RIGHT THUMBPRINT OF SIGNER

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