503559236 11/06/2015

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT3605863

| SUBMISSION TYPE: | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT |

CONVEYING PARTY DATA

| Name | Execution Date |
|-----------------|----------------|
| TOMOKO NAKAYAMA | 03/26/2008 |
| HERBERT Y. LIN | 05/24/2008 |

RECEIVING PARTY DATA

| Name: | ALNYLAM PHARMACEUTICALS, INC. |
|-----------------|-------------------------------|
| Street Address: | 300 THIRD STREET |
| City: | CAMBRIDGE |
| State/Country: | MASSACHUSETTS |
| Postal Code: | 02142 |

PROPERTY NUMBERS Total: 1

| Property Type | Number |
|---------------------|----------|
| Application Number: | 14744913 |

CORRESPONDENCE DATA

Fax Number: (650)938-5200

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: 415-875-2352

Email: nmorad@fenwick.com

Correspondent Name: KEVIN E. KABLER

Address Line 1: FENWICK & WEST LLP

Address Line 2: 801 CALIFORNIA STREET

Address Line 4: MOUNTAIN VIEW, CALIFORNIA 94041

| ATTORNEY DOCKET NUMBER: | 29458 |
|-------------------------|-----------------------------|
| NAME OF SUBMITTER: | KEVIN E. KABLER, REG. 63090 |
| SIGNATURE: | /Kevin Kabler/ |
| DATE SIGNED: | 11/06/2015 |

Total Attachments: 3

source=29458_US_Assignment_Nakayama_and_Lin_to_ALN_Inc#page1.tif source=29458_US_Assignment_Nakayama_and_Lin_to_ALN_Inc#page2.tif source=29458_US_Assignment_Nakayama_and_Lin_to_ALN_Inc#page3.tif

PATENT 503559236 REEL: 037066 FRAME: 0225

Attorney Docket No.: A2038-708110 / ALNE-035

ASSIGNMENT

For valuable consideration, we, Tomoko Nakayama, of 13 Bellis Circle, #2, Cambridge, MA 02140; and Herbert Y. Lin, of 68 Spruce Street, Watertown, MA 02472; hereby assign to ALNYLAM PHARMACEUTICALS, INC., a corporation of Delaware, having a place of business at 300 Third Street, Cambridge, MA 02142, and its successors and assigns (collectively hereinafter called "the Assignee"), our entire right, title and interest throughout the world in the inventions and improvements which are subject of (i) a Provisional application for United States Patent filed September 21, 2006, and assigned U.S. Serial Number 60/846,266; (ii) a Provisional application for United States Patent filed December 15, 2006, and assigned U.S. Serial Number 60/870,253; (iii) a Utility application for United States Patent filed September 21, 2007, and assigned U.S. Serial Number 11/859,288; and (iv) a PCT application filed September 21, 2007, and assigned PCT Serial Number PCT/US2007/079212, all four applications entitled COMPOSITIONS AND METHODS FOR INHIBITING EXPRESSION OF THE HAMP GENE, and the inventions and improvements of which are by us and Anke Geick and Pamela Tan; this assignment, including said application, and any and all continuations, continuations-inpart, and divisional applications, and any and all United States and foreign patents (including reissues, reexaminations, extensions), utility models, 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 we hereby confirm our prior authorization of the Assignee, as of September 21. 2006, to apply in all countries in our names 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 we agree for ourselves and our respective heirs, legal representatives and assigns, without further compensation to perform such lawful acts and to sign such further applications, assignments, Preliminary Statements and other lawful documents as the Assignee may reasonably request to effectuate fully this assignment, the effectiveness of this assignment including as of the filing date of the above-identified application and any applications from which the above-identified application claims benefit of.

Assignment Page 1 of 3

PATENT REEL: 037066 FRAME: 0226

Attorney Docket No.: A2038-708110 / ALNE-035

| IN WIINESS WHEREOF, I hereto set my hand and seal at <u>Cambridge</u> , <u>MA</u> (City, State), this <u>Idt</u> day of <u>March</u> , 2008. |
|---|
| Tomoko Makayama TOMOKO NAKAYAMA |
| Country of <u>MiddleSex</u> On this <u>26 th</u> day of <u>March</u> , 2008, before me, the undersigned notary public, personally appeared TOMOKO NAKAYAMA, proved to me through satisfactory evidence of identity, which was <u>rer MASS</u> <u>Drivers</u> home to be the person whose name was signed on the preceding or attached document in my presence, and who swore or affirmed to me that the contents of the document are truthful and accurate to the best of his knowledge and belief. |
| My commission expires April 25, 2014. |

| | HEREOF, I hereto set my hand and seal at Water in A (City, State), of May, 2008. HERBERT Y. LIN |
|--------------------|---|
| On thisappeared HE | day of, 2008, before me, the undersigned notary public, personally RBERT LIN to be the person whose name was signed on the preceding or attached my presence, and who swore or affirmed to me that the contents of the document and accurate to the best of his knowledge and belief. |
| | (official signature and seal of notary) |
| | (Official signature) |
| | (Official signature was |
| My commiss | ion expires |

Assignment Page 3 of 3

PATENT

REEL: 037066 FRAME: 0228

885948.1