505191349 11/14/2018

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE: NEW ASSIGNMENT

NATURE OF CONVEYANCE: ASSIGNMENT

EPAS ID: PAT5238118

CONVEYING PARTY DATA

| Name | Execution Date |
|-----------------------|----------------|
| ANTONIN DEFOUGEROLLES | 05/06/2011 |
| TATIANA NOVOBRANTSEVA | 05/06/2011 |
| BRIAN BETTENCOURT | 05/10/2011 |

RECEIVING PARTY DATA

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| City: | CAMBRIDGE |
| State/Country: | MASSACHUSETTS |
| Postal Code: | 02142 |

PROPERTY NUMBERS Total: 2

| Property Type | Number |
|---------------------|----------|
| Application Number: | 15212884 |
| Application Number: | 15906267 |

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| ATTORNEY DOCKET NUMBER: | 930385.401C2/930385.401C3 |
|-------------------------|---------------------------|
| NAME OF SUBMITTER: | BROOKE SARGEANT, PH.D. |
| SIGNATURE: | /Brooke Sargeant/ |
| DATE SIGNED: | 11/14/2018 |

Total Attachments: 2

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PATENT 505191349 REEL: 047505 FRAME: 0901

Attorney Docket No.: 051058-069001-PCT PCT/US11/31429

ASSIGNMENT OF INVENTION CONTAINED IN PCT APPLICATION (MULTIPLE INVENTORS)

In consideration of the payment by ASSIGNEE to ASSIGNORS of the sum of One dollar (\$1.00), the receipt of which is hereby acknowledged, and for other good and valuable consideration,

ASSIGNORS (inventors):

Name:

Antonin DEFOUGEROLLES

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Nationality:

US

hereby sells, assigns and transfers to

ASSIGNEE:

13418156.1

Name:

ALNYLAM PHARMACEUTICALS, INC.

Address:

300 Third Street, Third Floor

Cambridge, MA 02142 UNITED STATES

Nationality:

US

ALN-116-WO

Attorney Docket No.: 051058-069001-PCT PCT/US11/31429:

and the successors, assigns and legal representatives of the ASSIGNEE the entire right, title and interest and in all foreign countries, including all rights to claim priority in and to any and all improvements which are disclosed in the invention entitled COMPOSITIONS AND METHODS FOR INHIBITING EXPRESSION OF CD274/PD-L1 GENE and which is found in (37 C.F.R. Section 3.21) PCT application Serial No. PCT/US2011/031429 with an International Filing Date of April 6, 2011, and which claims the benefit under 35 U.S.C. § 119(e) U.S. Provisional No. 61/321,263 filed on April 6, 2010; and any legal equivalent thereof in any designated country, including the right to claim priority and, in and to, all Letters Patent to be obtained for said invention by the above application or any continuation, division, renewal, or substitute thereof, and as to letters patent any re-issue or re-examination thereof;

ASSIGNORS hereby covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment;

ASSIGNORS further covenant that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said invention and said Letters Patent and legal equivalents as may be known and accessible to ASSIGNORS and will testify as to the same in any interference, litigation or proceeding related thereto and will promptly execute and deliver to ASSIGNEE or its legal representatives any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue and enforce said application, said invention and said Letters Patent and said equivalents thereof which may be necessary or desirable to carry out the purposes thereof.

The undersigned hereby grant(s) the law firm of Nixon Peabody LLP of 100 Summer Street, Boston, Massachusetts 02110-2131, U.S.A. the power to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the U.S. Patent and Trademark Office for recordation of this document.

IN TESTIMONY WHEREOF, I, Antonin DEFOUGEROLLES, hereunto set my

| IN TESTIMONY WHEREOF, I, Tatiana NOVOBRANTSEVA, hereunto set my signature this 6 day of 44 , 2011. Tatiana/NOVOBRANTSEVA | y |
|---|-------|
| IN TESTIMONY WHEREOF, I, Brian BETTENCOURT, hereunto set my signathis this day of, 2011. Brian BETTENCOURT | ature |

Page 2 of 2

PATENT REEL: 047505 FRAME: 0903

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