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Substitute Form PTO-1595 Attorney Docket No.: 14174-116001 Client's Ref. No.: ALNE-027

## PATENTS ONLY

1. Name of conveying party(ies): Alnylam Europe AG Additional name(s) attached? □ Yes ❷ No  3. Nature of conveyance: □ Sassignment □ Merger □ Security Agreement □ Change of Name □ Other: Execution Date: 08/16/2006  4. Application number(s) or patent number(s): If this document is being filled with a new application, the execution date of the application is: B: Patent Application No(s):  11/477,028  Additional numbers attached? □ Yes ❷ No  5. Name/address of party to whom correspondence concerning document should be mailed: ALLYSON R. HATTON, PH.D. Fish & Richardson P.C. 225 Franklin Street Boston, MA 02110  DO NOT USE THIS SPACE  9. Statement and Signature: To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.  Allyson R. Hatton, Ph.D. Reg. No. 54.154 Name of Person Signing  Total number of pages including coversheet, attachments and documents 3	Commissioner for Patents: Please record the attached original document(s) or copy(ies).	
Additional name(s) attached?	Name of conveying party(ies):	2. Name and address of receiving party(ies):
3. Nature of conveyance:    Assignment   Merger   Security Agreement   Change of Name   Other:   Execution Date: 08/16/2006   Additional names/addresses attached?   Yes   No   4. Application number(s) or patent number(s):   If this document is being filled with a new application, the execution date of the application is:   A. Patent Application No(s):   B: Patent No(s):     11/477,028   Additional numbers attached?   Yes   No   5. Name/address of party to whom correspondence concerning document should be mailed:   ALLYSON R. HATTON, PH.D.   Fish & Richardson P.C.   Enclosed   Authorized to charge Deposit Account.     Boston, MA 02110   Boston, MA 02110   Please apply any additional charges, or any credits, to our Deposit Account No. 06-1050.    Do Not use this space   Authorized to charge Deposit Account.     S. Deposit Account No. 06-1050.     Please apply any additional charges, or any credits, to our Deposit Account No. 06-1050.     Statement and Signature: To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.     Allyson R. Hatton, Ph.D.   Allyson Hatton, Ph.D.   Reg. No. 54, 154   Name of Person Signing   Signature   Signature   Date   Proceedings   Procedure	Alnylam Europe AG	Alnylam Pharmaceuticals, Inc.
■ Assignment	Additional name(s) attached? 日 Yes 图 No	300 Third Street
Merger   Security Agreement   Change of Name   Other: Execution Date: 08/16/2006   Additional names/addresses attached? □ Yes ☑ No    4. Application number(s) or patent number(s):   If this document is being filled with a new application, the execution date of the application is:   B: Patent No(s).:   B: Patent No(s).:     11/477,028	3. Nature of conveyance:	Cambridge, MA 02142
Security Agreement Change of Name Other:  Execution Date: 08/16/2006  4. Application number(s) or patent number(s):  If this document is being filed with a new application, the execution date of the application is:  A Patent Application No(s):  11/477,028  Additional numbers attached? □ Yes ☑ No  5. Name/address of party to whom correspondence concerning document should be mailed:  ALLYSON R. HATTON, PH.D. Fish & Richardson P.C. 225 Franklin Street Boston, MA 02110  6. Total number of applications/patents involved: 1  7. Total fee (37 CFR §3.41): \$40 ☐ Enclosed ☐ Authorized to charge Deposit Account.  8. Deposit Account No.: 06-1050  Please apply any additional charges, or any credits, to our Deposit Account No. 06-1050.  DO NOT USE THIS SPACE  9. Statement and Signature: To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.  Allyson R. Hatton, Ph.D. Reg. No. 54.154 Name of Person Signing  Additional names/addresses attached? □ Yes ☑ No  B. Patent No(s)::  11/477,028  Additional names/addresses attached? □ Yes ☑ No  B. Patent No(s)::  12 Patent No(s)::  13 Patent No(s)::  14 Patent No(s)::  15 Patent No(s)::  16 Total number of applications/patents involved: 1  7. Total fee (37 CFR §3.41): \$40 ☐ Enclosed ☐ Authorized to charge Deposit Account.  8. Deposit Account No.: 06-1050  Deposit Account No.: 06-10	<u> </u>	
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Reg. No. 54,154  Name of Person Signing  Signature  Allysian Hartan  Date  Date		
Reg. No. 54,154  Name of Person Signing  Signature  Allysian Hartan  Date  Date		
Reg. No. 54,154  Name of Person Signing  Signature  Allysian Hartan  Date  Date	Allyson R. Hatton, Ph.D.	
	Reg. No. 54,154 (LLyon)	HOUTED CHURUST 28, 2006
Total number of pages including coversheet, attachments and document: 3	Name of Person Signing Signature ()	Date /

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REEL: 018190 FRAME: 0279

Attorney Docket No: 14174-116001 / ALNE-027

## <u>ASSIGNMENT</u>

For valuable consideration, ALNYLAM EUROPE AG, a company created and existing under the laws of Germany (hereinafter called "the Assignor") having a place of business at Fritz-Hornschuch-Str. 9, 95326 Kulmbach, Germany; hereby assigns 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"), the entire right, title and interest throughout the world in the inventions and improvements which are subject of an application for United States Patent, entitled RNAI MODULATION OF HIF-1 AND THERAPEUTIC USES THEREOF, filed June 27, 2006, and assigned U.S. Serial Number 11/477,028, this assignment, including said application, and any and all continuations, continuations-in-part, 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 Assignor authorizes the Assignee to apply in all countries in Assignor's or Assignee's name for patents, utility models, design registrations and like rights of exclusion and for inventor's certificates for said inventions and improvements; and Assignor agrees for itself, its 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 aboveidentified application and any applications from which the above-identified application claims benefit of.

> PATENT **REEL: 018190 FRAME: 0280**

Attorney Docket No: 14174-116001 / ALNE-027

In witness whereof, Assignor has caused this Assignment to be signed in its corporate name by its duly authorized officers.

ALNYLAM EUROPE AG

Hans-Peter Vornlocher

Title: Managing Director, Research

Witnessed by:

Date: 16.08. 2006

PARNIN SONOFF

Date: 16. Hug. 2006

Roland Kreutzer

Title: Managing Director

Witnessed by:

Date: 16.08.2006

Date: 16. Ang. 2006

Name:

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**RECORDED: 08/28/2006** 

2 of 2

PATENT **REEL: 018190 FRAME: 0281**