

## PATENT ASSIGNMENT

Electronic Version v1.1  
 Stylesheet Version v1.1

SUBMISSION TYPE:	NEW ASSIGNMENT						
NATURE OF CONVEYANCE:	ASSIGNMENT						
CONVEYING PARTY DATA							
<table border="1"> <thead> <tr> <th>Name</th> <th>Execution Date</th> </tr> </thead> <tbody> <tr> <td>Muthiah MANOHARAN</td> <td>02/21/2012</td> </tr> <tr> <td>Kallanthottathil G. RAJEEV</td> <td>02/10/2012</td> </tr> </tbody> </table>		Name	Execution Date	Muthiah MANOHARAN	02/21/2012	Kallanthottathil G. RAJEEV	02/10/2012
Name	Execution Date						
Muthiah MANOHARAN	02/21/2012						
Kallanthottathil G. RAJEEV	02/10/2012						
RECEIVING PARTY DATA							
Name:	Alylam Pharmaceuticals, Inc.						
Street Address:	300 Third Street						
City:	Cambridge						
State/Country:	MASSACHUSETTS						
Postal Code:	02142						
PROPERTY NUMBERS Total: 1							
<table border="1"> <thead> <tr> <th>Property Type</th> <th>Number</th> </tr> </thead> <tbody> <tr> <td>Application Number:</td> <td>13382353</td> </tr> </tbody> </table>		Property Type	Number	Application Number:	13382353		
Property Type	Number						
Application Number:	13382353						
CORRESPONDENCE DATA							
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ATTORNEY DOCKET NUMBER:	29520-0802						
NAME OF SUBMITTER:	Jeffrey N. Townes						
Total Attachments: 2 source=29520_0802_ALN_090US1_Executed_Assignment#page1.tif source=29520_0802_ALN_090US1_Executed_Assignment#page2.tif							

CH \$40.00 13382353

**ASSIGNMENT**

Application No. 13/382,353

Filed January 5, 2012

WHEREAS, Muthiah MANOHARAN and Kallanthottathil G. RAJEEV (hereinafter designated as the undersigned) have invented certain new and useful improvements in OLIGONUCLEOTIDE END CAPS for which an application for Letters Patent of the United States of America has been executed by the undersigned, and;

WHEREAS, Alnylam Pharmaceuticals, Inc. of 300 Third Street, Cambridge, MA 02142, its heirs, successors, legal representatives and assigns (hereinafter designated as the Assignee) is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent(s) that may be granted therefore in the United States of America;

NOW, THEREFORE, in consideration of the sum of One Dollar (\$1.00) to the undersigned in hand paid, the receipt of which is hereby acknowledged, and other good and valuable consideration, the undersigned has (have) sold, assigned and transferred, and by these presents do sell, assign and transfer unto said Assignee the full and exclusive right to the said invention in the United States of America and its territories and for all foreign countries, dependencies and possessions and the entire right, title and interest in and to any and all Letters Patent(s) which may be granted therefore in the United States of America and its territories, dependencies and possessions, and in and to any and all divisions, reissues, continuations and extensions thereof for the full term or terms for which the same may be granted.

The undersigned agree(s) to execute all papers necessary in connection with this application and any continuing, divisional or reissue applications thereof and also to execute separate assignments in connection with such applications as the Assignee may deem necessary or expedient.

The undersigned agree(s) to execute all papers necessary in connection with any interference which may be declared concerning this application or any continuation, division or reissue thereof or Letters Patent(s) or reissue patent issued thereon and to cooperate with the Assignee in every way possible in obtaining and producing evidence and proceeding with such interference.

The undersigned agree(s) to execute all papers and documents and to perform any act which may be necessary in connection with claims under or provisions of the International Convention for the Protection of Industrial Property or similar agreements.

The undersigned agree(s) to perform all affirmative acts which may be necessary to obtain a grant of a valid United States patent(s) to the Assignee and to vest all rights therein

hereby conveyed to said Assignee as fully and entirely as the same would have been held by the undersigned if this Assignment and sale had not been made.

The undersigned hereby authorize(s) and request(s) the Commissioner of Patents and Trademarks to issue any and all Letters Patents of the United States of America resulting from said application or any division or divisions or continuing or reissue applications thereof to the said Assignee, as Assignee of the entire interest, and hereby covenants that he has (they have) the full right to convey the entire interest herein assigned, and that he has (they have) not executed, and will not execute, any agreement in conflict herewith.

The undersigned hereby grant(s) the law firm of LeClairRyan 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.

Date 2/21/2012 Signature   
Name **Muthiah MANOHARAN**

Date 2-10-12 Signature   
Name **Kallanthottathil G. RAJEEV**