

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
APRIL 1, 2010**

**ORDER GRANTING CONFIDENTIAL TREATMENT
UNDER THE SECURITIES ACT OF 1933**

Alnylam Pharmaceuticals, Inc.

File No. 333-113162 - CF#24647

Alnylam Pharmaceuticals, Inc. submitted an application under Rule 406 requesting an extension of a previous grant of confidential treatment for information it excluded from the Exhibits to a Form S-1 registration statement filed on February 27, 2004.

Based on representations by Alnylam Pharmaceuticals, Inc. that this information qualifies as confidential commercial or financial information under the Freedom of Information Act, 5 U.S.C. 552(b)(4), the Division of Corporation Finance has determined not to publicly disclose it. Accordingly, excluded information from the following exhibit(s) will not be released to the public for the time period(s) specified:

Exhibit 10.16	through March 1, 2013
Exhibit 10.17	through March 1, 2013
Exhibit 10.18	through March 1, 2013
Exhibit 10.19	through March 1, 2013
Exhibit 10.20	through March 1, 2013
Exhibit 10.21	through March 1, 2013

For the Commission, by the Division of Corporation Finance, pursuant to delegated authority:

Christian Windsor
Special Counsel