

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
December 20, 2011**

**ORDER GRANTING CONFIDENTIAL TREATMENT
UNDER THE SECURITIES EXCHANGE ACT OF 1934**

Alynlam Pharmaceuticals, Inc.

File No. 000-50743 - CF#27515

Alynlam Pharmaceuticals, Inc. submitted an application under Rule 24b-2 requesting confidential treatment for information it excluded from the Exhibits to a Form 10-Q filed on November 3, 2011.

Based on representations by Alynlam 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 10.1 through June 29, 2021

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

Brigitte Lippmann
Special Counsel