UNITED STATES SECURITIES AND EXCHANGE COMMISSION October 4, 2016

ORDER GRANTING CONFIDENTIAL TREATMENT UNDER THE SECURITIES EXCHANGE ACT OF 1934

Ionis Pharmaceuticals, Inc.

File No. 0-19125 - CF#33784

Ionis 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 May 4, 2016 and a Form 10-Q/A filed on June 10, 2016.

Based on representations by Ionis 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 exhibits will not be released to the public for the time periods specified:

Exhibit 10.1 through July 31, 2025 Exhibit 10.2 through March 30, 2020

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

Brent J. Fields Secretary