UNITED STATES SECURITIES AND EXCHANGE COMMISSION July 28, 2016

ORDER GRANTING CONFIDENTIAL TREATMENT UNDER THE SECURITIES EXCHANGE ACT OF 1934

Xenon Pharmaceuticals Inc.

File No. 001-36687 - CF#33863

Xenon 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 10, 2016.

Based on representations by Xenon 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 will not be released to the public for the time period specified:

Exhibit 10.1 through September 23, 2019

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

Brent J. Fields Secretary