UNITED STATES SECURITIES AND EXCHANGE COMMISSION

August 31, 2010

ORDER GRANTING CONFIDENTIAL TREATMENT UNDER THE SECURITIES EXCHANGE ACT OF 1934

Isis Pharmaceuticals, Inc.

File No. 000-19125 - CF# 25448

Isis Pharmaceuticals, Inc. submitted an application under Rule 24b-2 requesting an extension of a previous grant of confidential treatment for information it excluded from the Exhibits to a Form 10-Q filed on August 9, 2007.

Based on representations by Isis 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 10.2 through July 31, 2013

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

Daniel Greenspan Special Counsel