UNITED STATES SECURITIES AND EXCHANGE COMMISSION November 13, 2009

ORDER GRANTING CONFIDENTIAL TREATMENT UNDER THE SECURITIES EXCHANGE ACT OF 1934

Synta Pharmaceuticals Corp. File No. 1-33277 - CF#23410

Synta Pharmaceuticals Corp. submitted an application under Rule 24b-2 requesting confidential treatment for information it excluded from the Exhibits to a Form 10-K filed on March 26, 2009, as amended on November 10, 2009.

Based on representations by Synta Pharmaceuticals Corp. 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 10.27 through December 31, 2013

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

Daniel Greenspan Special Counsel