UNITED STATES SECURITIES AND EXCHANGE COMMISSION June 15, 2011

ORDER GRANTING CONFIDENTIAL TREATMENT UNDER THE SECURITIES EXCHANGE ACT OF 1934

ARCA Biopharma, Inc.

File No. 0-22873 - CF#26882

ARCA Biopharma, 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 16, 2011.

Based on representations by ARCA Biopharma, 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 10.3 through May 16, 2014

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

Jennifer Riegel Special Counsel