

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

August 31, 2011

**ORDER GRANTING CONFIDENTIAL TREATMENT
UNDER THE SECURITIES EXCHANGE ACT OF 1934**

RXi Pharmaceuticals Corporation

File No. 001-33958 - CF# 27262

RXi Pharmaceuticals Corporation submitted an application under Rule 24b-2 requesting confidential treatment for information it excluded from the Exhibits to a Form 10-Q filed on August 15, 2011.

Based on representations by RXi Pharmaceuticals Corporation 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 January 10, 2021
Exhibit 10.5	through January 10, 2021
Exhibit 10.6	through January 10, 2021
Exhibit 10.12	through January 10, 2021

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

Sonia Gupta Barros
Special Counsel