UNITED STATES SECURITIES AND EXCHANGE COMMISSION July 11, 2016

ORDER GRANTING CONFIDENTIAL TREATMENT UNDER THE SECURITIES EXCHANGE ACT OF 1934

Mirna Therapeutics, Inc.

File No. 1-37566 - CF #33670

Mirna Therapeutics, Inc. submitted an application under Rule 24b-2 requesting confidential treatment for information it excluded from the Exhibits to a Form 10-K on March 30, 2016.

Based on representations by Mirna Therapeutics, 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 10.13 through June 30, 2020

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

Brent J. Fields Secretary