UNITED STATES SECURITIES AND EXCHANGE COMMISSION April 26, 2019

ORDER GRANTING CONFIDENTIAL TREATMENT UNDER THE SECURITIES ACT OF 1933

Pfenex Inc.

File No. 333-203418 - CF#32384

Pfenex Inc. submitted an application under Rule 406 requesting an extension of a previous grant of confidential treatment for information it excluded from the Exhibits to a Form S-1 registration statement filed on April 15, 2015, as amended.

Based on representations by Pfenex 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 10.34 through May 5, 2022

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

Vanessa A. Countryman Acting Secretary