

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
September 21, 2016**

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

**Sequenom, Inc.**

**File No. 000-29101 - CF#33956**

---

Sequenom, Inc. submitted an application under Rule 24b-2 requesting an extension of previous grants of confidential treatment for information it excluded from the Exhibits to a Form 10-Q filed on November 3, 2011, Form 10-K filed on March 9, 2012 and Form 10-Q filed on May 3, 2012.

Based on representations by Sequenom, 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:

<b>Exhibit</b>	<b>to Form</b>	<b>Filed on</b>	<b>Confidential Treatment Granted</b>
10.1	10-Q	November 3, 2011	through July 8, 2019
10.53	10-K	March 9, 2012	through July 8, 2019
10.1	10-Q	May 3, 2012	through July 8, 2019

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

Brent J. Fields  
Secretary