

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
April 29, 2014**

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

**Sequenom, Inc.**

**File No. 000-29101- CF#30791**

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Sequenom, Inc. submitted an application under Rule 24b-2 requesting an extension of prior grants of confidential treatment for information it excluded from the Exhibits to Forms 10-Q filed November 3, 2011 and May 3, 2012 and Form 10-K filed March 9, 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, 2016
10.53	10-K	March 9, 2012	through July 8, 2016
10.1	10-Q	May 3, 2012	through July 8, 2016

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

Kevin M. O'Neill  
Deputy Secretary