

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
April 6, 2017**

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

**Yield10 Bioscience, Inc.**

**File No. 1-33133 - CF#34961**

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Yield10 Bioscience, Inc. submitted an application under Rule 24b-2 requesting confidential treatment for information it excluded from the Exhibits to a Form 10-K filed on March 31, 2017.

Based on representations by Yield10 Bioscience, 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 10.19                      through March 30, 2022

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

Brent J. Fields  
Secretary