MAXIM GROUP LLC 300 Park Avenue, 16th Floor New York, New York 10022

August 8, 2023

VIA EDGAR CORRESPONDENCE

U.S. Securities and Exchange Commission Division of Corporation Finance 100 F. Street, N.E. Washington, D.C. 20549 Attn.: Jessica Ansart

Re: Yield10 Bioscience, Inc. (the "Company)

Registration Statement on Form S-1, as amended (the "Registration Statement")

File No. 333- 273240

Ladies and Gentlemen:

Pursuant to Rule 461 of the General Rules and Regulations under the Securities Act of 1933, as amended (the "Act"), we, as lead manager, hereby request that the U.S. Securities and Exchange Commission (the "Commission") take appropriate action to cause the above-referenced Registration Statement to become effective at 5:00 p.m., Eastern time, on Wednesday, August 9, 2023, or as soon thereafter as practicable.

Pursuant to Rule 460 under the Act, we wish to advise you that we have distributed as many copies of the Preliminary Prospectus dated August 2, 2023 to agents, dealers, institutions and others as appears to be reasonable to secure adequate distribution of the preliminary prospectus.

The undersigned, as placement agent, has complied and will comply with Rule 15c2-8 under the Securities Exchange Act of 1934, as amended.

Very truly yours,

MAXIM GROUP LLC

By: /s/ Clifford A. Teller
Name: Clifford A. Teller
Title: Co-President