March 18, 2022

Alexander Nguyen, Esq. General Counsel Unity Biotechnology, Inc. 285 East Grand Avenue South San Francisco, CA 94080

Re: Unity

Biotechnology, Inc.

Registration

Statement on Form S-3

Filed March 15,

2022

File No. 333-263574

Dear Mr. Nguyen:

This is to advise you that we have not reviewed and will not review your registration statement.

 $\,$ Please refer to Rules 460 and 461 regarding requests for acceleration. We remind you

that the company and its management are responsible for the accuracy and adequacy of their

disclosures, notwithstanding any review, comments, action or absence of action by the staff.

Please contact Tim

Buchmiller at (202) 551-3635 with any questions.

Sincerely,

Division of Corporation Finance

Office of Life Sciences

cc: Brian J. Cuneo, Esq.