

November 19, 2020

David L. Lucchino
President and Chief Executive Officer
Frequency Therapeutics, Inc.
19 Presidential Way, 2nd Floor
Woburn, MA 01801

Therapeutics, Inc.

Statement on Form S-3
2020

Re: Frequency

Registration

Filed November 16,

File No. 333-250099

Dear Mr. Lucchino:

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:

Nathan Ajiashvili, Esq.