



UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

DIVISION OF
CORPORATION FINANCE

September 3, 2019

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

**Re: Frequency Therapeutics, Inc.
Draft Registration Statement on Form S-1
Exhibit Nos. 10.10, 10.11 and 10.12
Submitted August 22, 2019
File No. 377-02740**

Dear Mr. Lucchino:

You have redacted information from the exhibits identified above asserting that the redacted information is not material and would cause competitive harm if publicly disclosed. For us to assess your compliance with the form requirements, please supplementally provide us, within five business days, with an unredacted paper copy (marked to show where you have redacted information in your public filing) of the exhibits identified above.

Please submit your response only to the address presented below. Given your conclusion that public disclosure of this information would cause you competitive harm, do not respond by submitting correspondence on EDGAR, sending a response by email or by sending your response to a Division staff member. You may wish to consider submitting your response in compliance with Rule 83 to protect it from public access while the materials are in our possession. If you request us to do so in accordance with Rule 418 or Rule 12b-4, we will destroy your supplemental submissions in connection with this compliance review when we conclude our assessment. In the absence of a request to destroy or return your supplemental materials, we will retain them in accordance with our record retention protocols.

To protect the confidentiality of your response, send it to:

Office of Disclosure Support, Mail Stop 4561
Division of Corporation Finance
U.S. Securities and Exchange Commission
100 F Street, NE
Washington, DC 20549

We will notify you of any comments we may have or that we have concluded our assessment of your compliance with the form.

If you have any questions, please contact us at RedactedExhibits@sec.gov. Include only your contact information in the email and your examiner will call you. Do not include or discuss any confidential information in your email.

Sincerely,

Division of Corporation Finance