

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

DIVISION OF CORPORATION FINANCE

June 7, 2021

Shalabh Gupta, M.D. Chief Executive Officer, President and Chairman Unicycive Therapeutics, Inc. 5150 El Camino Real, Suite A-32 Los Altos, CA 94022

> Re: Unicycive Therapeutics, Inc. Registration Statement on Form S-1 Exhibit No. 10.10 Filed May 21, 2021 File No. 333-256367

Dear Dr. Gupta:

You have redacted information from the exhibit 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 copy (marked to show where you have redacted information in your public filing) of the exhibit identified above.

Please contact the staff member associated with the review of this filing to discuss how to submit the unredacted copy of your exhibits. Given your conclusion that public disclosure of this information would cause you competitive harm, do not respond by submitting correspondence on EDGAR or sending a response by email. Unless you tell us otherwise, we will assume that you want us to treat the requested supplemental materials, including unredacted documents and any related correspondence, as confidential while in our possession. We will destroy the supplemental materials at the end of our assessment unless doing so would be inconsistent with Rules 418 or 12b-4.

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

Sincerely,

Division of Corporation Finance