

October 25, 2021

VIA EDGAR AND FEDERAL EXPRESSUnited States Securities and Exchange Commission
Division of Corporation Finance
Office of Life Sciences
Mail Stop 4561
100 F Street, N.E.
Washington, D.C. 20549
Attention: Dillon Hagius and Joe McCann**Re: Aura Biosciences, Inc.
Registration Statement on Form S-1
Submitted October 8, 2021
CIK No. 0001501796**

Dear Ms. Hagius and Ms. McCann:

This letter is submitted on behalf of Aura Biosciences, Inc. (the “**Company**”) in response to the comments of the staff of the Division of Corporation Finance (the “**Staff**”) of the U.S. Securities and Exchange Commission (the “**Commission**”) with respect to the Company’s Registration Statement on Form S-1, publicly filed on October 8, 2021 (the “**Registration Statement**”), as set forth in the Staff’s letter, dated October 13, 2021, addressed to Elisabet de los Pinos, Ph.D. (the “**Comment Letter**”). The Company is concurrently submitting Amendment No. 1 to the Registration Statement (“**Amendment No. 1**”), which includes changes to reflect responses to the Staff’s comments and other updates.

For reference purposes, the text of the Comment Letter has been reproduced herein with responses below each numbered comment. For your convenience, we have italicized the reproduced Staff comments from the Comment Letter. Unless otherwise indicated, page references in the descriptions of the Staff’s comments refer to the Registration Statement, and page references in the responses refer to Amendment No. 1. All capitalized terms used and not otherwise defined herein shall have the meanings set forth in Amendment No. 1.

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- We note your revisions in response to prior comment 1 but your response and revised disclosure do not appear to address the concerns raised in our prior comment. As such, we continue to believe the identification of the pre-IPO investors is inappropriate in the prospectus summary. Please provide us with a more detailed response addressing the concerns raised in our prior comment or revise your disclosure as appropriate.*

RESPONSE: The Company respectfully advises the Staff that it has revised the disclosure on pages 3 and 98 of Amendment No. 1 in response to the Staff's comment.

Supplemental Response

Additionally, the Company respectfully submits, in response to the Staff's prior comment #3 included the Staff's letter, dated September 27, 2021, that the Company will not be entering into new employment agreements with its named executive officers. The Company respectfully advises the Staff that it has updated its disclosure on page 169 of Amendment No. 1 and has filed the current employment agreements with each of the Company's named executive officers as exhibits 10.8-10.10 of Amendment No. 1.

Sincerely,

/s/ Danielle M. Lauzon

Danielle M. Lauzon, Esq.

Cc: *Elisabet de los Pinos, Ph.D., President and Chief Executive Officer, Aura Biosciences, Inc.*
Julie Feder, Chief Financial Officer, Aura Biosciences, Inc.
Stephanie A. Richards, Esq., Goodwin Procter LLP