

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

April 10, 2023

Meeshanthini V. Dogan, Ph.D. Chief Executive Officer Cardio Diagnostics Holdings, Inc. 400 North Aberdeen Street, Suite 900 Chicago, IL 60642

> Re: Cardio Diagnostics Holdings, Inc. Registration Statement on Form S-1 Filed April 5, 2023 File No. 333-271147

Dear Meeshanthini V. Dogan:

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: P. Rupert Russell, Esq.