

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

November 26, 2024

Meeshanthini V. Dogan Chief Executive Officer Cardio Diagnostics Holdings, Inc. 311 West Superior Street, Suite 444 Chicago, IL 60654

> Re: Cardio Diagnostics Holdings, Inc. Registration Statement on Form S-1 Filed November 22, 2024 File No. 333-283419

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 Tamika Sheppard at 202-551-8346 with any questions.

Sincerely,

Division of Corporation Finance Office of Life Sciences

cc: P. Rupert Russell