

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

May 7, 2025

Elisa Luqman Chief Financial Officer Cardio Diagnostics Holdings, Inc. 311 West Superior Street Suite 444 Chicago, IL 60654

> Re: Cardio Diagnostics Holdings, Inc. Form 10-K for the Fiscal Year Ended December 31, 2024 File No. 001-41097

Dear Elisa Luqman:

We have reviewed your May 7, 2025 response to our comment letter and have the following comment.

Please respond to this letter within ten business days by providing the requested information or advise us as soon as possible when you will respond. If you do not believe a comment applies to your facts and circumstances, please tell us why in your response.

After reviewing your response to this letter, we may have additional comments. Unless we note otherwise, any references to prior comments are to comments in our April 17, 2025 letter.

Form 10-K for the Fiscal Year Ended December 31, 2024

<u>Item 8. Financial Statements and Supplemental Data</u>
<u>Note 3 - Summary of Significant Accounting Policies, page F-7</u>

1. We note your response and proposed disclosure to prior comment five and reissue our comment in part. Please confirm that your future filings will include the ASC 280-10-50 disclosure requirements to provide your measure of segment profit/loss, significant segment expense, and other requirements that may be applicable to your single operating segment.

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Please contact Bonnie Baynes at 202-551-4924 or Angela Connell at 202-551-3426 if you have questions regarding comments on the financial statements and related matters.

Sincerely,

Division of Corporation Finance Office of Life Sciences