

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

DIVISION OF CORPORATION FINANCE

March 11, 2024

Andrew Simpson Chief Executive Officer Heart Test Laboratories, Inc. 550 Reserve St., Suite 360 Southlake, TX 76092

> Re: Heart Test Laboratories, Inc. Registration Statement on Form S-1 Filed March 5, 2024 File No. 333-277675

Dear Andrew Simpson:

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 Benjamin Richie at 202-551-7857 with any questions.

Sincerely,

Division of Corporation Finance Office of Industrial Applications and Services

cc: Jonathan R. Shechter