

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

July 25, 2022

Andrew Spaventa Chief Executive Officer Singular Genomics Systems, Inc. 3010 Science Park Road San Diego, CA 92121

> Re: Singular Genomics Systems, Inc. Registration Statement on Form S-3 Filed July 19, 2022 File No. 333-266221

Dear Mr. Spaventa:

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 Jason Drory at 202-551-8342 with any questions.

Sincerely,

Division of Corporation Finance Office of Life Sciences

cc: Ryan J. Gunderson