

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

June 17, 2020

Nancy Simonian, M.D.
President and Chief Executive Officer
Syros Pharmaceuticals, Inc.
35 CambridgePark Drive, 4th Floor
Cambridge, Massachusetts 02140

Re: Syros Pharmaceuticals, Inc.
Registration Statement on Form S-3
Filed June 12, 2020
File No. 333-239141

Dear Dr. Simonian:

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 Alan Campbell at 202-551-4224 with any questions.

Sincerely,

Division of Corporation Finance Office of Life Sciences

cc: Cynthia Mazareas