



DIVISION OF
CORPORATION FINANCE

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

May 23, 2017

Nancy Simonian
President and Chief Executive Officer
Syros Pharmaceuticals, Inc.
620 Memorial Drive, Suite 300
Cambridge, MA 02139

Re: Syros Pharmaceuticals, Inc.
Registration Statement on Form S-1
Filed May 15, 2017
File No. 333-218012

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 Dorrie Yale at 202-551-8776 with any questions.

Division of Corporation Finance
Office of Healthcare & Insurance

cc: Cynthia T. Mazareas