



DIVISION OF
CORPORATION FINANCE

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

January 23, 2020

Sanjay Shukla
President and Chief Executive Officer
aTyr Pharma, Inc.
3545 John Hopkins Court, Suite 250
San Diego, CA 92121

Re: aTyr Pharma, Inc.
Registration Statement on Form S-1
Filed January 17, 2020
File No. 333-235951

Dear Mr. Shukla:

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 William Mastrianna, Attorney-Adviser, at (202) 551-3778 with any questions.

Sincerely,

Division of Corporation Finance
Office of Life Sciences

cc: Sean Clayton