June 17, 2020

Vincent J. Angotti Chief Executive Officer Acelrx Pharmaceuticals Inc. 351 Galveston Drive Redwood City, CA 94063

Re: Acelrx

Pharmaceuticals Inc.

Registration

Statement on Form S-3

Filed June 12, 2020 File No. 333-239156

Dear Mr. Angotti:

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 Paul

Fischer at 202-551-3415 with any questions.

Sincerely,

Division of Corporation Finance

Office of Life Sciences

cc: David Ambler, Esq.