



DIVISION OF
CORPORATION FINANCE

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

June 12, 2017

Vincent 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 5, 2017
File No. 333-218506**

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 Johnny Gharib at (202) 551-3170 with any questions.

Division of Corporation Finance
Office of Healthcare & Insurance

cc: Robert W. Phillips, Esq.