DIVISION OF CORPORATION FINANCE

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

Mail Stop 4546

November 10, 2016

Neal Walker President and Chief Executive Officer Aclaris Therapeutics, Inc. 101 Lindenwood Drive, Suite 400 Malvern, PA 19355

Re: Aclaris Therapeutics, Inc.

Registration Statement on Form S-3

Filed November 2, 2016 File No. 333-214384

Dear Mr. Walker:

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 Jeffrey Gabor at (202) 551-2544 with any questions.

Sincerely,

/s/ Joseph McCann for

Suzanne Hayes Assistant Director Office of Healthcare and Insurance

cc: Mark Ballantyne, Esq.

Cooley LLP