

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

DIVISION OF CORPORATION FINANCE

Mail Stop 4546

January 13, 2017

David J. Main President and Chief Executive Officer Aquinox Pharmaceuticals, Inc. 450-887 Great Northern Way Vancouver, B.C., Canada V5T 4T5

> Re: Aquinox Pharmaceuticals, Inc. Registration Statement on Form S-3 Filed January 6, 2017 File No. 333-215457

Dear Mr. Main:

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: Michael E. Tenta, Esq. Cooley LLP