

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

February 28, 2020

Richard Toselli, M.D.
President and Chief Executive Officer
InVivo Therapeutics Holdings Corp.
One Kendall Square, Suite B14402
Cambridge, MA 02139

Re: InVivo Therapeutics Holdings Corp. Registration Statement on Form S-1 Filed February 21, 2020 File No. 333-236572

Dear Dr. Toselli:

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,

Division of Corporation Finance Office of Life Sciences

cc: Rosemary G. Reilly, Esq.