

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

Office of Life

Corporation Finance

Sciences

cc: Rosemary G. Reilly, Esq.