November 17, 2022 Richard Toselli 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 November 9, 2022 File No. 333-268256 Dear Richard 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 Jordan Nimitz at 202-551-5831 with any questions. Sincerely, Division of Corporation Finance Office of Industrial Applications and

Services

Rosemary G. Reilly,

Esq.

cc: