

August 12, 2022

Richard Toselli, M.D.
President and Chief Executive Officer
INVIVO THERAPEUTICS HOLDINGS CORP.
One Kendall Square, Suite B14402
Cambridge, MA 02139

HOLDINGS CORP.
Proxy Statement on Schedule 14A
2022

Re: INVIVO THERAPEUTICS
Revised Preliminary
Filed August 11,
File No. 001-37350

Dear Dr. Toselli:

We have reviewed your filing and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to these comments within ten business days by providing the requested information or advise us as soon as possible when you will respond. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

After reviewing your response to these comments, we may have additional comments.

Amendment Proxy Statement on Schedule 14A, Filed August 11, 2022

Questions and Answers about Voting at the Annual Meeting and Related Matters, page 1

1. We note your disclosure on Page 5: As a result, a broker non-vote on Proposal No. 3 will have the same effect as a vote AGAINST the proposal because the proposal requires the affirmative vote of a majority of the voting rights of our outstanding common stock and if you sign and return your proxy marked ABSTAIN, it will have the same effect as a vote AGAINST the proposal, because each proposal requires the affirmative vote of a majority of the voting rights of our outstanding common stock.

Please revise to:

(1) Clarify each of your statements that broker non-votes and abstentions have the same effect as votes cast against, in each place these statements appear in the proxy, to state that they do not have such effect if the voting rights are exercised. I.e., despite the fact that a majority of the shares outstanding may vote against a proposal, with broker non-votes and

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abstentions included, the result could be the opposite the proposal will be approved where voting rights are exercised and mirrored voting occurs, and

(2) Add mention of either broker non-votes or abstentions, as applicable, to each of the instances that only address abstentions or broker non-votes, so all instances address both broker non-votes and abstentions and not one or the other.

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.

You may contact Margaret Schwartz at 202-551-7153 or Celeste Murphy at 202-551-3257 if you any questions.

Sincerely,

FirstName LastNameRichard Toselli, M.D.

Comapany NameINVIVO THERAPEUTICS HOLDINGS CORP.
Division of Corporation Finance
Office of Life Sciences

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cc: Rosemary Reilly, Esq.

FirstName LastName