

DIVISION OF CORPORATION FINANCE

July 21, 2022

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. Preliminary Proxy Statement on Schedule 14A Filed July 8, 2022 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.

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Preliminary Proxy Statement on Schedule 14A, Filed July 8, 2022

Questions and Answers about Voting at the Annual Meeting and Related Matters How many votes do I have?, page 1

- 1. Please revise to explicitly state that the Voting Rights were granted by the Company pursuant to the Voting Plan solely to affect the passage of the Articles Amendments. We note that the Voting Plan was adopted pursuant to the authority in NRS 78.195(5) and NRS 78.350(8), please revise to define NRS. Additionally, we note that the Board (or a committee thereof) will set the Voting Factor, or a range representing the minimum Voting Factor and the maximum Voting Factor, on or after July 6, 2022. Please revise to explain all factors that the Board (or a committee thereof) will be considering in deciding the Voting Factor. Please also revise your disclosure to clarify how, including the factors considered, the final Voting Factor will be selected if a range is initially chosen instead of a definitive number. Please also revise to clarify the meaning of clause (ii) on page 2, consider including an example. Finally, explain whether these Voting Rights will affect quorum requirements and if so how.
- 2. Please tell us how the Voting Plan, specifically the granting of the Voting Rights, complies with Nasdaq Rule 5640.

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 Margaret Schwartz at 202-551-7153 or Celeste Murphy at 202-551-3257 with any questions.

Sincerely,

Division of Corporation Finance Office of Life Sciences

cc: Rosemary Reilly, Esq.