

Review of: "Gut Microbiome, Bone Health, and Air Pressure: Construing the Axis for the Proposed Triad"

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Potential competing interests: No potential competing interests to declare.

Gut Microbiome, Bone Health, and Air Pressure: Construing the Axis for the Proposed Triad

The current article highlights the impact of atmospheric pressure on the regulation of bone homeostasis and the gut microbiome. The authors have pointed out the role of NF-kB, a pro-survival molecule lying on the axis of the gut, bone, and the air pressure components, construing the axis for the proposed "triad". The manuscript seems to be well-written. However, a few points need to be addressed before it may be recommended for publication.

Comments:

- 1. The article lacks structure and should be rearranged in a more organized manner for the ease of understanding for readers.
- 2. The introduction part should clearly mention the background behind the hypothesis of constructing the proposed "Gut Microbiome, Bone Health, and Air Pressure" triad. Also, the concluding line of the introduction should clearly mention what the current manuscript proposes to review.
- 3. A section should be included where the complex signaling pathways associated with the proposed triad are elaborated, and a hypothesis regarding how they precisely play a role in the construction of the triad should be explained.
- 4. In the discussion section, the author has mentioned that further work will be carried out by him in the direction of elucidating the molecular interactions involved in the proposed triad. The future perspectives, including the key experiments that the author aims to perform in order to validate the complex interactions of the proposed triad, should be briefly summed up.
- 5. The utility and the translational aspect of the proposed triad should also be highlighted in the discussion section.