

Peer Review File

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Reviewer A

Comment 1:

This narrative review entitled "A Narrative Review from Gut to Lungs: Non-Small Cell Lung Cancer and the Gastrointestinal Microbiome (#67352)" by Dr. Shar reviewed gut microbiome research in patients having lung cancer. The underlying mechanisms for cross-talk for gut microbiome and cancer immunity are poorly understood, and immunotherapy and host-related factors are associated with prognosis in patients treated with immunotherapy in the previous research.

1. The limited number of references that were searched with eligibility criteria [only 26 references].
2. There are similar reviews that have already been published. Please make some unique chapters of the authors' insight.
3. I recommend the authors prepare the figures to illustrate to the readers.

I understand that the authors reviewed the limited references. However, the authors should extend the discussion from the previous research and show future directions in this review article.

There are similar reviews that have already been published. I am guessing there is no new insight or future perspective in the review art

Reply 1: Thank you for your feedback. We have reviewed the references in both PubMed (24 relevant original studies) and EMBASE (36 relevant original studies). We have also summarized the future directions via the ongoing clinical trials listed in Clinicaltrials.gov. We have added to the prior reviews (Lu et al. 2022; Oh et al. 2021; Li et al. 2022; Xu et al. 2022; etc.) by summarizing in one review the bidirectional nature of the relationship between gut microbiome and lung carcinogenesis, as well as components of cancer treatment that may act as modulators of ICI treatment outcomes. We are grateful for your feedback on how to improve the quality of our paper and have added a section on future directions. We have also newly added two figures that highlight some of the underlying pathogenesis of microbiome dysbiosis and its impact on lung carcinogenesis.

Changes in the text: We have added a section on future directions on pages 23 and 24, and two figures.

Reviewer B

Comment 2:

In the manuscript entitled " A Narrative Review from Gut to Lungs: Non-Small Cell Lung Cancer and the Gastrointestinal Microbiome", Hely Shah and Terry L.Ng, comprehensively reviewed and summarized studies regarding the impact of the relationship between gut microbiome, lung cancer, and immunology. This review paper is written well, providing adequate details regarding the background information, accumulated evidence, and future direction.

Minor point: It seems Beta-lactams and B-lactams are unusual. beta(Greek character)-lactams should be used

Reply 2: Thank you for your feedback. We are grateful for your thoughtful review.

Changes in the text: We have made the recommended change to β -lactams on pages 19 and 20.