

## Point-to-point reply to the reviewer's comments

Reviewer 1 (05910457)

Comments to the Author: good study i accept it

**Response:** Thank you for your affirmation.

Reviewer 2 (03850246)

Comments to the Author:

The paper aimed to explore the effects of low-dose ionizing radiation on homeostasis from the "thyroid-gut axis" perspective, providing a conceptual and analytical foundation for further research into the chronic effects of LDR on human health, including thyroid function. The manuscript is clear and presented in a well structured manner. The study is well designed. Materials and methods are described in detail. Results are reported clearly and appropriate. The impact of radiation is well known on thyroid but there emerging scenarios related to tumors and therapy. Can you briefly introduce the hot topic of the role of PD L1 in thyroid, quoting as follow: Programmed Death-Ligand 1 (PD-L1) Is a Potential Biomarker of Disease-Free Survival in Papillary Thyroid Carcinoma: a Systematic Review and Meta-Analysis of PD-L1 Immunoexpression in Follicular Epithelial Derived Thyroid Carcinoma. Girolami I et al. Endocr Pathol. 2020 Sep;31(3):291-300. doi: 10.1007/s12022-020-09630-5.

**Response:** Thank you for your suggestion. We have cited the review as reference 3.

Reviewer 3 (05126185)

Comments to the Author:

The topic is interesting, the design was appropriate, the results were good and the discussion was convincing. But I would like to point out that every single-center study including yours is expected to have the issue of external validation. I would like to suggest you to address it as a limitation of this study in Discussion.

**Response:** Revised as suggested.