

Review of: "Coupling between Human Brain Cortical Thickness and Glucose Metabolism from Regional to Connective level: a PET/MRI study"

Qian Zhao¹

¹ Ningxia Medical University General Hospital

Potential competing interests: No potential competing interests to declare.

The manuscript was focused on the correlation between CTh and glucose metabolism using fusion molecular imaging technique ¹⁸F-FDG PET/MRI. Aging differences and a special network were analyzed.

The topic was interesting and charming, which may be helpful in the understanding of central nervous system disorders. The presented manuscript needs further improvement as well as detailed interpretation expected to be better clarified.

The major issues to be addressed were listed below:

- 1) The main problem was the criteria. Why were the initial 201 subjects performed ¹⁸F-FDG PET/MR imaging? Malignancy was excluded, did it mean brain malignancy, tumors or malignancies in body? Aging analysis was meaningful in normal aging, not in disease conditions. Education level and dominant hand were also important in the brain studies, however there's no mention of these information.
- 2) What's the base of group division. The middle aged group included so many young subjects. In aging studies, less than 40 y group was always set as baseline, years beyond 50 was the start of aging research.
- 3) Ethics and informed consent should be provided.
- 4) key details about image processing should be added, such as the threshold T, k value.
- 5) The writing really needs to be carefully proof-read by a native English speaker to revise so many logic confusion, grammar and typo errors.
- 6) The figure and tables need to be revised. In table one, some other important clinical information should be added. In figure 2, the authors should be cautious on the detailed information of figure label and legend.