

## Review of: "An Improved Hybrid Transfer Learning-Based Deep Learning Model for Alzheimer's Disease Detection Using CT and MRI Scans"

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Potential competing interests: No potential competing interests to declare.

In the study, the authors examined the success of different deep learning models for Alzheimer's Disease detection. The study contributes to science. However, it is required with the following additions.

The convolution layer output in Figure 1 should be converted into an image and placed.

Data balancing and data augmentation should be explained in more detail.

The parameters required for model evaluation should be formulated.

100 epochs seem like too few. Experiments should be repeated with more epoch values.

Conclusion should be rewritten. Accuracy situations should be expressed more fluently and clearly. Even a metric such as f1 score or MCC should be added.

Success metrics obtained with articles in the literature should be compared. For this, a new paragraph should be added to the discussion.

Additionally, the following studies should be added.

Almeida, V. N. (2023). Somatostatin and the pathophysiology of Alzheimer's disease. Qeios.

Chakrabarti, S. S., Gupta, S., Ganguly, U., Kaushal, A., Yadav, A. K., Kaur, U., ... & Chakrabarti, S. (2022). Effects of the SARS-CoV-2 Spike protein on in vitro aggregation of alpha synuclein-probable molecular interactions and clinical implications. Qeios.

KASIM, Ö., & KUZUCUOĞLU, A. (2015). DETECTION AND CLASSIFICATION OF LEUKOCYTE CELLS FROM THE PREPARATION IMAGE. Gazi University Faculty of Engineering and Architecture Journal, 30(1), 95-109.

Ocasio, E., & Duong, T. Q. (2021). Deep learning prediction of mild cognitive impairment conversion to Alzheimer's disease at 3 years after diagnosis using longitudinal and whole-brain 3D MRI. PeerJ Computer Science, 7, e560.

Al Shehri, W. (2022). Alzheimer's disease diagnosis and classification using deep learning techniques. PeerJ Computer Science, 8, e1177.



After these additions, it is appropriate to accept the work.