Author's response to reviews

Title: Cognitive Training Can Reduce the Rate of Cognitive Aging - Evidence from Cohort Neuroimaging Data

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December 18, 2014

Professor Giulia Manqiameli  
Executive Editor  
BMC Geriatrics

Dear Sir:

We wish to submit our manuscript entitled “Cognitive Training Can Reduce the Rate of Cognitive Aging - Evidence from Cohort Neuroimaging Data” by T. Li, Y. Yao, Y. Cheng, B. Xu, X. Cao, D. Waxman, W. Feng, Y. Shen, Q. Li, J. Wang, W. Wu, C. Li and J. Feng for consideration for publication in BMC Geriatrics.

We would be grateful if you could kindly consider the above manuscript for publication in BMC Geriatrics. It represents original work, and has not been published, nor is it being considered for publication in another journal.

This research reports that cognitive training can reduce the rate of cognitive aging with evidence shown in both the brain structure and functional networks. Drawing on a comparatively large neuroimaging dataset of 50 individuals with one year follow-up, we have studied the benefits of cognitive training on the elderly with the help of functional and structural MRI. The striking aspect of this study is that the improvements are not only found in the functional networks by functional MRI, but also the brain structure by structural MRI. This implies that cognitive training can induce the plasticity of intrinsic activity pattern in the elderly.

Given the integrative nature of our work that brings together brain fitness, systems-level functional information, anatomical structure validation and correlation with behavioral improvements with cognitive trainings, we believe that our paper will be of significant interest to the readers of the journal.

All authors have contributed substantially to the writing of the paper, including the conception and design of the project, the collection of the data, the analysis and
interpretation of data, and to drafting and critical revision of the manuscript for important intellectual content. They are entirely responsible for the scientific content of the paper. The authors report no conflicts of interest.

We respectfully suggest the following reviewers for our work:

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Thank you very much!

Yours sincerely,

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