

Editorial

Yan-Jiang Wang, M.D., Ph.D and Xian-Le Bu, M.D., Ph.D., recipients of the 2019 Alzheimer Award

The *Journal of Alzheimer's Disease* (JAD) is pleased to announce that Yan-Jiang Wang, MD, PhD, and Xian-Le Bu, MD, PhD, both of Daping Hospital, Army Medical University, Chongqing, China, are joint recipients of the 2019 Alzheimer Award.

The award is presented by the journal in recognition of Dr. Wang, Dr. Bu, and colleagues' groundbreaking article that presents clear evidence that gut microbiota composition is altered in patients with Alzheimer's disease (AD). This suggests that gut microbiota participate in the disease pathogenesis and modulation of gut microbiota might be a potential therapeutic strategy for AD.

The 2019 winning paper is "Gut Microbiota is Altered in Patients with Alzheimer's Disease" (Zhuang et al., *J Alzheimers Dis* **63**, 1337–1346, 2018). It is freely available to everyone to read, download, and share.

The 2019 award is proudly sponsored by Memory Health (www.memoryhealth.com).

2019 Alzheimer Award Recipients



Yan-Jiang Wang is the professor of Neurology at the Department of Neurology in Daping Hospital, Third Military Medical University, China. He is the vice chair of Academy of Cognitive Disorder of China and director of Vas-Cog Asia. He completed his M.D. training at Third Military Medical University in China, and Ph.D. training at Flinders University in

Australia. His research focuses on the diagnostic biomarkers and novel therapies for Alzheimer's disease. His group found that Abeta metabolism in the brain is dynamically

connected with that in the periphery, peripheral-derived Abeta participates in the pathogenesis of Alzheimer's disease and clearance of Abeta and tau from blood can reduce Abeta and pathological tau accumulation in the brain. Based on these findings, he and colleagues proposed the systemic view of Alzheimer's disease to understand the disease pathogenesis and develop the therapeutics from systemic approaches (Wang J, Gu BJ, Masters CL, Wang YJ. *Nat Rev Neurol*. 2017;13:612-623).



Xian-Le Bu is a neurologist at Daping Hospital, Third Military Medical University, China. He did his medical doctor training and received Ph.D. in Third Military Medical University (2012–2016). He was granted with the National Natural Science Foundation of China. His research focus is on the association of systemic disease and Alzheimer's

disease (AD), and he and colleagues discovered: 1) numerous systemic diseases are associated with AD risk and peripheral Abeta metabolism, suggesting that the disorder of peripheral Abeta metabolism may be involved in AD pathogenesis. 2) blood-derived Abeta can enter brain and induce AD-type pathologies, providing novel insight into AD pathogenesis from a systemic view; 3) the substantial contribution of the peripheral system to the clearance of brain Abeta, providing proof-of-concept evidence that development of drugs and therapies for AD could be focused on peripheral rather than central Abeta clearance.

Importance of Published Article

The work presented in the paper "Gut microbiota is altered in patients with Alzheimer's disease" (Zhuang ZQ, et al. *J Alzheimers Dis*. 2018;63:1337-1346) was performed by Dr. Zhen-Qian Zhuang and colleagues

in Professor Wang's lab in Daping Hospital of Third Military Medical University. It has been showed that gut microbes can influence brain function and behavior via the microbiota-gut-brain axis. The alterations in the gut microbiota composition were proven linked to a number of neuropsychiatric disorders. However, it remains unclear whether gut microbiota participates in the pathogenesis of Alzheimer's disease. In this study researchers collected the feces from patients with Alzheimer's disease, and found that gut microbiota composition in the patients was

different from that in cognitively normal controls. Several bacterial taxa, such as *Actinobacteria*, *Bacteroidales*, *Ruminococcaceae*, *Selenomonadales* and *Lachnospirillum*, contributed to the differences. This study provides evidence that gut microbiota composition is altered in patients with Alzheimer's disease, suggesting that gut microbiota participates in the disease pathogenesis and modulation of gut microbiota might be a potential therapeutic strategy for AD.