

# A REVIEW ON GUTFLORA, BRAINGUT AXIS AND ALZHEIMER DISEASE

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## ABSTRACT

Alzheimer's disease (AD) is a neurodegenerative disease in which pathophysiological changes occur in amyloid plaque and neurofibrillary tangles. The studies have revealed that the micro biota-gut-brain axis. Gut-brain has various pathways of connection. Gut and spinal cord are connected together by the vagus nerve. Brain stem nuclei may require direct connectivity with brain. Enteric nervous system may be stimulated by gut bacteria. Blood circulation may connect brain and gut. Probiotics are the microorganisms that give beneficial action to the host body. Probiotics have the efficiency to provide substances which are beneficial for inflammation and related disease. Stress, antibiotic consumption, poor eating habits may lead to health risks due to micro flora imbalance in gut. The gut micro beta producing chemicals such as monoamine and amino acid through lymphatic and vascular system may reach to brain. Its direct link with micro biota brain-gut connectivity. Gut micro beta are responsive to neurotransmitters signalled by brain. Flora has the ability to synthesize and release neuron transmitters as serotonin, dopamine and histamine. "Neuroinflammation" occurs due to neuron release substance. It is common in AD. In this context the idea developed is probiotics can reduce anti-inflammatory activity in AD by alteration in gut micro biota, which is known as dysbiosis. It can be due to gut infection, age. Healthy dietary pattern along with balanced prebiotics and probiotics decline in neurocognitive effects in AD.

## Biography:

Mr Simachal Panda has completed his Post Graduate degree (M. Pharmacy, Specialization- Pharmaceutics) from Department of Pharmaceutical Sciences, Utkal University, and pursuing Ph. D. from Lovely Professional University, Jalandhar, Punjab, India. He is an MBA in pharmaceutical management. Presently working as Associate Professor Pharmaceutics, at Pratap University -School of Pharmaceutical Sciences, Jaipur, Rajasthan, India. He has 45 research and review papers published in reputed national and international journals. He has won the achievement award title,

"Distinguished Researcher in Pharmacy" Awarded by, "RULA Awards" Powered by, "World Research Council" &

"United Medical Council". He achieved Young Scientist Award in 2019 by Doc Rosh at Hilton International at Mumbai. He has received Young Talent 2019 Award at Kuala Lumpur, Malaysia by Bio league, APTI and SPER. He has been attached to a number of reputed institutions with academic and research activities as in Utkal University, Andhra University, Lovely Professional University, Trinity w. University, UK. He is Doctorate of alternative medicine and P.I., International Forensic Sciences enrolling for A.I.C.