Mechanisms of neuroresilience to promote successful healthy cognitive and psychological aging across the lifespan

Recent evidence provides support for the novel roles of the gut-microbiome/brain axis in the prevention of mood and brain degenerative disorders. It has also been shown that recently developed brain bioavailable polyphenolic compounds may help to prevent stress-induced illnesses in mice. In this presentation, Dr. Pasinetti, will discuss how psychological stress may negatively influence the normal relationship between the body and the gut microbial community ultimately impairing brain synaptic functions. Most importantly, Dr. Pasinetti’s laboratory found that stress may disrupt the gut-microbiome/brain axis through mechanisms involving altered immune-inflammatory responses. This new evidence has important ramifications especially in view of the fact that human gut microbes are able to influence the bioavailability of brain penetrating polyphenolic acids, which engage in the brain limbic regions, which are involved in mood disorders and cognitive impairment. These findings pave the road to new studies to further develop microbiome and immunoregulation-based strategies to promote resilience against psychological stress-mediated mood disorders across the lifespan.

Biography

Giulio Maria Pasinetti is The Saunders Family Chair, a Professor of Neurology, Psychiatry, and Geriatrics and Adult Development and the Director of the Center for Molecular Integrative Neuroresilience (CMIN) at the Icahn School of Medicine at Mount Sinai (ISMMS) in New York, USA.

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