ASHBi SEMINAR

Shaping brain development and plasticity with cytokines

Lecturer: Anna Victoria Molofsky M.D., Ph.D.

Associate Professor/ UCSF Weill Institute for Neurosciences

Date Friday, 28 June 2024

Time 13:00 – 14:00 [JST]

Venue Seminar Room
(1F, Faculty of Medicine Bldg. B)

*Register via the right QR code

Abstract

Dr. Anna Molofsky is a molecular neuroscientist and adult psychiatrist. Her research group studies the functional connections between the immune system and the brain, with a particular focus on homeostatic roles of neuroimmune signaling in brain development, learning, and memory. The Molofsky lab has identified novel mechanisms through which cytokines regulate brain development and synaptic plasticity. These include the finding that microglia remodel the extracellular matrix to promote synapse plasticity via the cytokine Interleukin-33. More recently, the lab has found that Type I interferons drive microglia to eliminate a subset of neurons during brain development and has identified Interleukin-13 as a cytokine that promotes inhibitory synapse formation. These studies demonstrate that distinct aspects of neural circuits can be regulated by different immune pathways, with implications for many diseases in which the immune system may be involved, including schizophrenia, autism spectrum disorders, and others.

Organizer : Graduate School of Medicine Institute for the Advanced Study of Human Biology (WPI-ASHBi)

Contact: Dr. Fumitaka Inoue

[E-mail] inoue.fumitaka.7a@kyoto-u.ac.jp