Dr. Jonathan (Jony) Kipnis’s research group focuses on the complex interactions between the immune system and the central nervous system (CNS). The goal is to elucidate the cellular and molecular mechanisms underlying the beneficial effects of immune system in brain function in neurodegenerative, neurodevelopmental, and mental disorders as well as in healthy aging.

Dr. Kipnis’s research team showed that the brain function is dependent, in part, on the function and integrity of the immune system. The fascination with immunity and its role in healthy and diseased brain is what brought the team to a breakthrough discovery of lymphatic vessels that drain the CNS into the peripheral lymph nodes and thus serve as a physical connection between the brain and the immune system. The implications of this work are broad and range from Autism to Alzheimer’s disease through neuroinflammatory conditions, such as Multiple Sclerosis. Actually, recently the lab has made another major discovery, demonstrating the critical role of immune system in social behavior, implicated in autism spectrum disorder. Today we will hear on the role of CNS-lymphatic vessels in brain aging and Alzheimer’s disease and how targeting these vessels may rejuvenate the brain.

Jony Kipnis graduated from the Weizmann Institute of Science in Israel, where he was a Sir Charles Clore scholar and a recipient of distinguished prize for scientific achievements awarded by the Israeli Parliament, The Knesset.

Jony joined UVA faculty in 2007 as an assistant professor and has rapidly risen through the ranks. He is now a Harrison Distinguished Professor and Chair of the Neuroscience Department. He was awarded the Robert Ader Award by the PsychoNeuroImmunology Research Society and the Jordi Folch-Pi award by the American Society for Neurochemistry. In 2015, Jony became a Gutenberg Research College Fellow at the Johannes Gutenberg University Mainz Medical Center, Germany.