

Laboratory: Molecular Neurobiology

Speaker: Martin Balašík

Topic: Microtubule associated proteins in brain development and disease

Annotation:

During development of human brain over 10^{14} connections (synapses) are formed. Their specificity is critical for the brain function and their deregulation has been linked to many neurodevelopmental disorders (NDD). Mechanisms controlling the formation of brain connectivity are largely unknown, but coordinated action of extracellular signals and specific cytoskeletal responses is essential. Using neuron cultures and mouse models, we study the role of microtubule-associated proteins in regulation of microtubules, axon guidance, synapse formation and refinement - in healthy brain and in the NDD.