

**Jalonen, TO**, “Basic properties, function and regulation of membrane receptors and ion channels in CNS cells” Tampere University Medical Faculty, Tampere Technical University, Finland; St. George’s University, Grenada

**Abstract:**

The functional interactions in the CNS (neuronal, glial and other cells) are regulated by the chemical and electrical activities of these cells. The electrochemical gradients are largely created and maintained by the activities of ion channels and receptors. The action potentials, and production of EPSPs, IPSPs, LTPs and LTDs, are essential in the complex inter-neuronal and glial-neuronal signaling systems, which form the core of our CNS-driven existence. This project aims to focus on finding out how the ion channels and neurotransmitter and chemokine receptors interact and are regulated in e.g. some neurodegenerative and neurological diseases (Alzheimer’s disease, AIDS dementia, multiple sclerosis).