

Gavin Woodhall

Professor, Aston Pharmacy School at Aston University

Birmingham, , GB

Professor Woodhall researches electrophysiological studies on neurones of the entorhinal cortex (EC) and the hippocampus.

Biography

Professor Woodhall researches electrophysiological studies on neurons of the entorhinal cortex (EC) and the hippocampus. Additional interests include the role of glutamate and GABA receptors in epilepsy in the brain; the role of homeodynamic synaptic scaling in epileptogenesis in the temporal lobe. Autoimmune epilepsies, psychosis and neuronal network dynamics; the relationship between epilepsy and affective disorders. The role of cannabinoids in epilepsy treatment (collaboration with GW Pharma). The role of the primary motor cortex in epilepsy and Parkinson's disease (in collaboration with Dr. Stuart Greenhill). The temporal lobe is a brain region which is especially prone to epilepsy. His research focuses on how epilepsy is established, and how dynamic changes in receptor expression and function lead to changes in neuronal network behaviour that may underlie epileptic seizures. Additionally, he is interested in how neuronal network dynamics alter in schizophrenia, and how epilepsy and schizophrenia relate to each other in terms of pathological network function.

Areas of Expertise

Neuronal Network Dynamics, Schizophrenia, Epilepsy, Hippocampus

Education

University of Southampton

PhD

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