A Computational Model of Interactions Between Neuronal and Astrocytic Networks
The Role of Astrocytes in the Stability of the Neuronal Firing Rate

Unique Features of Network Bursts Emerge From the Complex Interplay of Excitatory and Inhibitory Receptors in Rat Neocortical Networks

Reduced level of docosahexaenoic acid shifts GPCR neuroreceptors to less ordered membrane regions

Viability of Mouse Retinal Explant Cultures Assessed by Preservation of Functionality and Morphology

Advances in Human Stem Cell-Derived Neuronal Cell Culturing and Analysis

Astrocyte lineage cells are essential for functional neuronal differentiation and synapse maturation in human iPSC-derived neural networks

Data-driven study of synchronous popula on ac vity in generic spiking neuronal networks: How much do we capture using the minimal model for the considered phenomena?

Assessment of mutation probabilities of KRAS G12 missense mutants and their long-timescale dynamics by atomistic molecular simulations and Markov state modeling

Concerted regulation of npc2 binding to endosomal/lysosomal membranes by bis(monoacylglycero)phosphate and sphingomyelin

Atomistic fingerprint of hyaluronan–CD44 binding

Network-wide adaptive burst detection depicts neuronal activity with improved accuracy

Morphological Differentiation Towards Neuronal Phenotype of SH-SY5Y Neuroblastoma Cells by Estradiol, Retinoic Acid and Cholesterol

The effects of neuron morphology on graph theoretic measures of network connectivity
The analysis of a two-level statistical model

Podocyte apoptosis is prevented by blocking the Toll-like receptor pathway

Effects of cytokine activation and oxidative stress on the function of the human embryonic stem cell–derived retinal pigment epithelial cells

Patient-specific induced pluripotent stem cell—derived RPE cells
Understanding the pathogenesis of retinopathy in long-chain 3-hydroxyacyl-CoA dehydrogenase deiciency

In silico study on structure and dynamics in bursting neuronal networks

Significance of graph theoretic measures in predicting neuronal network activity

Inhibition of Casein kinase-2 induces p53-dependent cell cycle arrest and sensitizes glioblastoma cells to tumor necrosis factor (TNFα)-induced apoptosis through SIRT1 inhibition

Cortical spreading depression in alpha-synuclein knockout mice

COX-2 regulates the proliferation of glioma stem like cells

Effects of local structure of neuronal networks on spiking activity in silico

Emergence of global and local structural features during development of neuronal networks

Pathway analysis of expression data
Deciphering functional building blocks of complex diseases

Effects of structure on spontaneous activity in simulated neuronal networks

Neural networks, cell cultures and some older work on data analysis.

Influence of the neural network topology on the learning dynamics

A constrained HMM-based approach to the estimation of perceptual switching dynamics in pigeons