The Columbia Neuroscience Society presents:
The 8th Annual Research Symposium
November 23, 2013

Christine Denny, PhD
Departmental Affiliations: Psychiatry

Our lab is interested in how hippocampal neural ensembles contribute to learning and memory, and how these neural ensembles are altered in ageing and in Alzheimer's disease (AD).

Alex Dranovsky, MD/PhD and
David Leonardo, MD/PhD
Departmental Affiliations: Psychiatry

The lab is interested in the molecular mechanisms of anxiety and depression.

Christopher Filippi, MD
Departmental Affiliations: Radiology

The lab's research primarily focuses on advanced MR imaging techniques and their use in treatment planning and outcomes research.

Jacqueline Gottlieb, PhD
Departmental Affiliations: Neuroscience

The Gottlieb laboratory investigates the neural basis of higher cognitive function, including decision making, working memory and attention.

René Hen, PhD
Departmental Affiliations: Psychiatry, Neuroscience, Pharmacology

Our research is focused on the contribution of serotonin (5-HT) receptors to pathological states such as depression and anxiety.

Daniel Hsu, PhD
Departmental Affiliations: Computer Science

I work on algorithmic statistics and machine learning, with emphases on unsupervised learning, interactive learning, and privacy-preserving data analysis.

Jonathan Javitch, MD/PhD
Departmental Affiliations: Psychiatry, Pharmacology

The Javitch group focuses on the structure, function and regulation of G protein-coupled receptors and neurotransmitter transporters, with an emphasis on dopamine D2 receptor and dopamine transporter.

Thomas Jessell, PhD
Departmental Affiliations: Biochemistry and Molecular Biology, Neuroscience

Research in this laboratory attempts to define mechanisms that specify the identity of neurons, the patterning of their axonal projections, and the formation of selective synaptic connections.

Christoph Kellendonk, PhD
Departmental Affiliations: Psychiatry, Pharmacology, Neuroscience

The Kellendonk lab works with mouse models of schizophrenia using different genetic approaches targeting either basal ganglia or thalamo-cortical circuits.

Elisa Konofagou, PhD
Departmental Affiliations: Biomedical Engineering

Our research focuses on ultrasonics (imaging and therapy), elasticity imaging, signal and image processing, and soft tissue mechanics.

Charles Legendy, PhD
Departmental Affiliations: Psychology

I am looking for someone willing and able to do a piece of computer programming. The objective is to detect the repeated ignitions of cell assemblies by looking for what amounts to the multineuronal version of Poisson surprise.

Filippo Mancia, PhD
Departmental Affiliations: Physiology & Cellular Biophysics

We are interested in the structure and function of membrane proteins. Our efforts are currently devoted to three main areas of research: insect olfactory receptors, cellular uptake of micronutrients, and structural genomics of membrane proteins.

Richard Mann, PhD
Departmental Affiliations: Biochemistry and Molecular Biology

Members of the motor neuron group in the Mann laboratory are interested in understanding the development and circuitry of neurons that control fruit fly walking.

Andrew Marks, MD
Departmental Affiliations: Medicine; Physiology & Cellular Biophysics

The Marks lab is devoted to improving basic understandings of mechanisms that regulate calcium dependent signals including muscle contraction and cell growth.

Ben O'Shaughnessy, PhD
Departmental Affiliations: Chemical Engineering

The group investigates cytoskeletons and cell membranes using quantitative approaches that integrate experiment, image and data analysis, and mathematical modeling.

Daniel Salzman, MD/PhD
Departmental Affiliations: Psychiatry, Neuroscience

The Salzman lab studies the neural mechanisms that underlie our ability to learn such associations, and our ability to regulate our emotions based on those associations.

Venkat Venkatasubramanian, PhD
Departmental Affiliations: Chemical Engineering

The newly founded Complex Resilient Intelligent Systems Laboratory (CRIS Lab) at Columbia carries our research in three areas: (1) risk analysis and management in complex engineered systems, (2) cyberinfrastructure and "big data" analytics for molecular products design and discovery, and (3) complex adaptive teleological systems.

Qi Wang, PhD
Departmental Affiliations: Biomedical Engineering

Our research focuses neural coding in the somatosensory pathway of the brain, brain-machine interfaces, and biomedical instrumentation for creating engineered tactile sensations.

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