

Neural and Behavioral Science SEMINAR SERIES 2013-2020
School of Graduate Studies SUNY Downstate Medical Center
450 Clarkson Avenue Brooklyn, NY 11203-2098
Seminars will begin at 12 noon in Lecture Hall 1B.
For more information regarding the seminars call: 718.270.2740

9/18/13 Ivan Bodis-Wollner
SUNY Downstate Medical Center
Venturing into the no-man's land of the retina in
Parkinson's Disease

10/2/13 Youping Zhao
SUNY Downstate Medical Center
Cortical mechanism of color perception

10/16/13 Annalisa Scimemi
Department of Biology, SUNY Albany
Calcium channels and neurotransmitter vesicles in
the active zone

10/30/13 Jim Schwaber
Thomas Jefferson University
Single neuron molecular physiology, joining systems
biology with electrophysiology

11/1/13 Alex Zhou and Andrzej Przekwas
CFD Research Corp.
Warfighter Biodynamics, Fatigue and Injury Protection:
Modeling Perspective

12/11/13 Qi Wang
Columbia University Assistant Professor, Biomedical
Engineering
Thalamic synchrony and adaptive tradeoff
between detection and discrimination in behavior

1/15/14 Bijan Pesaran
New York University Associate Professor, Center for
Neural Science
The promise of local field potentials for
neuroscience and neural engineering

1/29/14 April Benasich
Rutgers University Professor of Neuroscience, Director,
Infant Studies Laboratory, Director, Carter Center
for Neurocognitive Research, Center for
Molecular and Behavioral Neuroscience
Electrophysiological maturation and evolution of
infant oscillatory brain activity impacts auditory
processing and early language

2/12/14 Eric Lang
NYU Langone Medical Center Associate Professor,
Department of Neuroscience & Physiology
Synaptic Modulation of the Cerebellar Nuclei

2/26/14 Joseph T. Francis
SUNY Downstate Medical Center Associate Professor,
Physiology & Pharmacology
Toward a fully integrated and autonomous brain
machine interface

3/12/14 Benjamin Backus
SUNY College of Optometry Associate Professor,
Department of Biological and Vision Sciences
Binocular vision: amblyopia and strabismus

4/9/14 Hannah Choi
Northwestern University Postdoc candidate,
Department of Engineering Sciences and Applied
Mathematics
Intrinsically bursting All amacrine cells drive
oscillations both in wild type and rd1 retina

4/25/14 Jason G. Fleischer
The Neurosciences Institute, La Jolla, CA Data Scientist
Embodied neural models of hippocampus:
studying the relationships between anatomy,
activity, and spatial memory

5/7/14 Russell Epstein
University of Pennsylvania Professor, Department of
Psychology
From Landmarks to Cognitive Maps: Spatial
Navigation Systems in the Human Brain

5/21/14 Kathy Rockland
Boston University
The claustrum and synaptic zinc

6/4/14 Elizabeth Cropper
Mt. Sinai School of Medicine
Regulation of afferent transmission during a rhythmic
motor program: Mechanisms and consequences

9/17/14 Susana Martinez-Conde
SUNY Downstate Medical Center Professor,
Departments of Ophthalmology
and Physiology & Pharmacology
From visual exploration to visual fixation:
Towards a unified theory of oculomotor function

10/1/14 Cliff Kentros
Norwegian University of Science and Technology,
Trondheim, Norway
Professor of Medicine, Kavli Institute of
Systems Neuroscience
Transgenic investigation of the Neural Circuitry of
Memory

10/15/14 Aurel A. Lazar
Columbia University Professor, Department of Electrical
Engineering
Spiking Neural Circuits with Dendritic Stimulus
Processors: Encoding, Decoding and Identification

10/29/14 Mark Baxter
Icahn School of Medicine at Mount Sinai Professor of
Neuroscience
Cognitive and socioemotional effects of postnatal
anesthesia exposure: Animal models

11/12/14 John F. Crary*
Mount Sinai School of Medicine Associate Professor of
Pathology
Tautologies and tau: refining the diagnosis of
Alzheimer's disease

12/5/14 Ashish Raj
Weill Cornell Medical College Associate Professor of
Computer Science in Radiology and Neuroscience
Co-Director, Image Data Evaluation and Analytics Lab
(IDEAL)
Graph Theoretic Models for Exploring Brain
Function and Disease

12/10/14 Simon F. Giszter
Drexel University
Professor, Department of Neurobiology and Anatomy
Spinal motor primitives, recovery of function and
cortical controls: a view from frogs and rats

1/7/15 Yasmin Hurd
Icahn School of Medicine at Mount Sinai Professor,
Departments of Psychiatry, Neuroscience and
Pharmacology and Systems Therapeutics of the Center
for Addictive Disorders
The Vulnerable Brain: Pathway to Addiction
Disorder

1/21/15 Ernst Niebur
Johns Hopkins University
Professor, Department of Neuroscience
Attention to Objects and Perceptual Organization:
A neurally plausible computational model for
intermediate vision

2/4/15 Peter Rudebeck Icahn School of Medicine at
Mount Sinai Assistant Professor, Friedman Brain
Institute
Reward, valuation and the prefrontal cortex:
From emotion to decision-making

3/11/15 Eva Pastalkova
Howard Hughes Medical Institute Fellow
Janelia Research Campus
Hippocampal sequenstial firing and episodic memory

3/18/15 Dmitriy Aronov
Princeton Neuroscience Institute Postdoctoral Research
Fellow
The rat spatial navigation system in 2D virtual
reality

4/10/15 Vladimir Miskovic
SUNY Binghamton University Assistant Professor,
Department of Psychology
Natural Selective Attention in the Human Visual
System

4/15/15 Dara L. Dickstein
Icahn School of Medicine at Mount Sinai Assistant
Professor, Friedman Brain Institute
The pathological effects of blast induced
traumatic brain injury

4/29/15 Edward Ziff
NYU School of Medicine Professor
Homeostatic Synaptic Plasticity: A Mechanism
and Some Novel Roles

6/10/15 Charles Nicholson
NYU School of Medicine Professor of Neuroscience and
Physiology
Brain extracellular space and the clearance of
molecules during sleep

9/16/15 Juan Marcos Alarcon
SUNY Downstate Medical Center Assistant Professor of
Pathology
Persistent modifications of hippocampal synaptic
function with remote spatial memory

9/30/15 Farzan Nadim
New Jersey Institute of Technology Professor of
Neurobiology
How does a neuron maintain its phase in an
oscillatory network?

10/14/15 Janina Ferbinteanu
SUNY Downstate Medical Center Research Assistant
Professor, Department of Physiology and Pharmacology
Hippocampal and Striatal Contributions to
Memory-Guided Behavior

10/28/15 Michael Halassa
NYU Langone Medical Center Assistant Professor,
Departments of Psychiatry, Neuroscience & Physiology
Thalamic inhibition as a mechanism for
attentional allocation

12/9/15 Stephen L. Macknik
SUNY Downstate Medical Center Empire Innovator
Scholar, Professor of Ophthalmology, Neurology, and
Physiology & Pharmacology
Different Abnormal Blood Flow Sources Lead to
Spatially Distinct Patterns of Cell Death in Epilepsy
and Age-Related Macular Degeneration

12/18/15 George J. Augustine
Nanyang Technological University, Singapore Professor
of Neuroscience and Mental Health, Lee Kong Chian
School of Medicine
Optogenetic mapping of brain circuitry

1/6/16 Diana Dow-Edwards
SUNY Downstate Medical Center Professor, Department
of Physiology and Pharmacology, Chair, Institutional
Animal Care and Use Committee, Distinguished
Visiting Research Chair in Brain Science,
Child and Family Health & Wellness
Fulbright Canada-Palix Foundation
Cannabinoids and Development of the Brain

1/20/16 Mark Stewart*
SUNY Downstate Medical Center Dean, School of
Graduate Studies and Vice Dean for Research
An explanation for sudden death in epilepsy

2/3/16 Nicolas Brunet
SUNY Downstate Medical Center Research Assistant
Professor, Department of Ophthalmology
Surfing across the visual cortex by riding the
gamma wave

2/17/16 Matthijs van der Meer
Dartmouth College Assistant Professor, Department of
Psychological and Brain Sciences
Ensemble representation of imagined places and
rewards in the rat

3/2/16 Randy M. Bruno
Columbia University Medical Center Associate
Professor, Department of Neuroscience
The Many Input Layers of the Neocortex

3/16/16 Jeremy Barry*

University of Vermont Research Associate, Department of Neurological Sciences
Hippocampal neurophysiology and the assay of spatial cognition in basic and translational science

3/30/16 Oliver Clarke

Columbia University Medical Center Research Associate, Department of Biochemistry and Molecular Biophysics
Structural studies of ryanodine receptor gating

4/27/16 Christophe Dupre

Columbia University Medical Center Neurobiology and Behavior PhD Program, Department of Biological Sciences
Calcium Imaging in Hydra

5/25/16 Bence P. Olveczky

Harvard University Professor, Department of Organismic and Evolutionary Biology and the Center for Brain Science
Neural circuits underlying motor skills

6/8/16 David Foster

The John Hopkins University School of Medicine
Associate Professor
Hippocampal place cell sequences for memory and imagination

6/10/16 James Kozloski

T.J. Watson Research Center, IBM, Yorktown Heights, NY, Research Staff Member, Master Inventor
Brain Modeling with Multimodal, Mutiscale Constraints

9/7/16 Diego Contreras

University of Pennsylvania Professor, Department of Neuroscience
Dynamic properties of thalamocortical synapses in the visual system in vivo

9/21/16 Todd C. Sacktor

SUNY Downstate Medical Center Distinguished Professor, Departments of Physiology & Pharmacology and Neurology
PKM ζ , LTP, and memory: controversy and Resolution

9/28/16 Luke Dittrich

New York Times Magazine/Freelance Journalist
Patient H. M., A Story of Memory, Madness and Family Secrets

10/5/16 James J. Knierim

Johns Hopkins University Professor of Neuroscience, Krieger Mind/Brain Institute
Information Processing along the Hippocampal Transverse Axis

10/19/16 Srdjan D. Antic

UCONN Health Associate Professor, Department of Neuroscience
Dendritic Plateau Potential in Thin Dendrites of Cortical Pyramidal Neurons – Potential Role in Network Activity

10/30/16 Joel D. Richter

University of Massachusetts Medical School
Arthur F. Koskinas Professor of Neuroscience, Professor of Molecular Medicine
Molecular Biology of the Fragile X Syndrome

11/2/16 Nathaniel B. Sawtell

Columbia University Associate Professor, Department of Neuroscience and Kavli Institute for Brain Science
Neural Mechanisms for Predicting the Sensory Consequences of Behavior

12/14/16 Ellen M. Unterwald

Temple University Professor of Pharmacology
Director of the Center for Substance Abuse Research, Lewis Katz School of Medicine
Erasing cocaine memories

1/11/17 Donald Pfaff

The Rockefeller University Professor, Department of Neurobiology and Behavior
Waking up the brain: Generalized CNS arousal and estrogen-dependent sexual arousal

1/25/17 Robert Froemke

New York University Assistant Professor, Department of Neuroscience and Physiology
Oxytocin, maternal behavior, and synaptic plasticity

2/8/17 Katherine Nagel

NYU School of Medicine Assistant Professor
Department of Neuroscience and Physiology
Neural encoding of wind direction in *Drosophila*

3/8/17 Annelyn Torres-Reveron*

University of Texas at Rio Grande Valley-School of Medicine
Assistant Professor, Department of Biomedical Sciences, Division of Neurosciences
Environmental enrichment as an effective alternative treatment to reduce endometriosis progression

3/29/17 Daphne Soares

New Jersey Institute of Technology Associate Professor, Federated Department of Biological Sciences
Neural adaptations to cave environments

4/12/17 Attila Losonczy

Columbia University Department of Neuroscience, Mortimer B. Zuckerman Mind Brain Behavior Institute, Kavli-Simons Fellow, Kavli Institute for Brain Science
Dissecting Hippocampal Circuit Operations for Navigation and Learning

5/17/17 Stephen L. Macknik

SUNY Downstate Medical Center Professor and Empire Innovator Scholar, Departments of Ophthalmology, Neurology, Physiology & Pharmacology
The Temporal Neural Mechanisms Underlying Brightness and Visibility Perception

5/31/17 Guillem Esber Brooklyn College - CUNY Assistant Professor of Psychology The role of basolateral amygdala in the modulation of cue salience	3/28/18 Micheal Goldberg Columbia University Medical Center Professor, Department of Neuroscience Corollary Discharge and Oculomotor Proprioception - Two Mechanisms for Spatial Accuracy in the Monkey Brain
9/13/17 Kally O'Reilly New York University Postdoctoral Fellow, Center for Neural Science Sub-circuit alterations in hippocampus metabolic coupling, structure, and function after global neurodevelopment insult	4/25/18 Heather Read University of Connecticut Associate Professor Director, Brain Computer Interface Core, Departments of Psychological Sciences and Biomedical Engineering Cortical Mechanisms for Discriminating Ears
9/27/17 Jacquelyn Meyers SUNY Downstate Medical Center Professor, Department of Psychiatry Genetic, Psycho-Social, and Neurophysiological influences on Substance Use Disorders	5/23/18 Andre Fenton* NYU Langone Medical Center Professor, Center for Neural Science The dynamic structure of cognition: If space was time
10/11/17 Erin Rich Icahn School of Medicine at Mt Sinai Assistant Professor, Department of Neuroscience Dynamic encoding of choice in the orbitofrontal Cortex	9/12/18 John Murray Yale University School of Medicine Assistant Professor of Psychiatry, Neuroscience, and Physics Hierarchical specialization of human cortex
10/25/17 Mariam Aly Columbia University Assistant Professor, Department of Psychology Perception and attention in memory systems	9/26/18 George Dragoi Yale University School of Medicine Assistant Professor of Psychiatry and Neuroscience Neuronal ensembles underlying internally-generated representations
12/6/17 Marisa Carrasco New York University Professor of Psychology and Neural Science, Collegiate Professor On Covert Attention and Presaccadic Attention	10/10/18 Mark Stewart* SUNY Downstate Medical Center Dean, School of Graduate Studies, Professor, Departments of Physiology & Pharmacology, and Neurology An explanation for sudden death in epilepsy (SUDEP)
12/8/17 Eric L. Hargreaves Rutgers University - Robert Wood Johnson Medical School, Clinical DBS Neurophysiologist, Director of the DBS Clinical Research Program Deep Brain Stimulation (DBS) Basics for Parkinson's Disease, plus a little clinical research on the side...	10/24/18 Bruce S. McEwen The Rockefeller University Alfred E. Mirsky Professor, Department of Neuroscience and Behavior Hormones and the Brain: Serendipity to Clinical Relevance
12/20/17 Roger Traub IBM Research Center Research Staff Member Gap junctions between the axons of pyramidal cells and their role in very fast oscillations (ripples)	12/19/18 Jeffrey Goodman NYS Institute for Basic Research, Staten Island Associate Professor, Department of Developmental Neurobiology The Role of Prenatal Thyroid Hormone in Brain Development
1/17/18 Jacqueline Gottlieb Columbia University Professor, The Kavli Institute for Brain Science, The Zuckerman Institute for Mind, Brain and Behavior The hidden side of attention: how does the brain make the selection	1/16/19 Herman Moreno SUNY Downstate Medical Center Associate Professor, Departments of Neurology, Physiology & Pharmacology AD risk factors, -too many to make sense!!
2/28/18 Eric Carmichael Dartmouth College, New Hampshire Department of Psychological and Brain Sciences Probing the origin(s) of gamma oscillations in the rat ventral striatum and their role in information routing	1/30/19 Samuel Neymotin* Nathan Kline Institute for Psychiatric Research Research Scientist Using Biophysical Computational Neural Models to Investigate Neuropsychiatric Disorders
3/14/18 Kamran Diba University of Michigan Associate Professor, Department of Anesthesiology Ripples over space and time: state-dependence in hippocampal spike patterns	2/13/19 Eric L. Hargreaves Robert Wood Johnson Medical School, Rutgers University, Clinical DBS Neurophysiologist and Director of the DBS Clinical Research Program, Division of Neurosurgery Deep Brain Stimulation (DBS) Overview & Research: 1) Predicting Device Duration, 2) Clinical Impact of Interleaving Contact Configuration

2/27/19 J. Ashot Kozak
Wright State University Associate Professor,
Departments of Neuroscience, Cell Biology & Physiology
TRPM7: a cation channel and a kinase

3/13/19 Linnaea Ostroff
University of Connecticut Assistant Professor,
Department of Physiology & Neurobiology
Local protein synthesis on both sides of the
synapse in an emotional memory circuit

3/20/19 Anne Murphy
Georgia State University Professor, Neuroscience
Institute Sex differences in innate immunity & its impact
on opioid modulation of pain

3/27/19 Lorin S. Milescu
University of Missouri Assistant Professor, Division of
Biological Sciences
The (im) probability machine: how ion channels
organize complex behavior in neurons and circuits

4/3/19 Ian Wishaw
University of Lethbridge, Alberta, Canada Professor of
Neuroscience
Multiple Motor Channel Theory and Hands or
How the Brain Works

4/24/19 Barry Komisaruk
Rutgers University Distinguished Professor, Department
of Psychology
Brain activity related to sexual response and
orgasm in women and men

5/8/19 Amy Kohtz
Rutgers University Department of Environmental
Sciences, Brain Health Institute
Sex Differences in Addiction: Memory or
Motivation?

5/16/19 Panayiota Poirazi
Institute of Molecular Biology and Biotechnology
(IBB), Foundation of Research and Technology-
Hellas (FORTH), Heraklion, Crete, Greece
Computational Neuroscientist Active dendrites and
their role in neuronal and circuit computations

6/5/19 Pantelis Hatzis
Biomedical Sciences Research Center, Athens,
Greece, Researcher B and Head of Fleming
Genomics Facility, Division of Molecular
Biology & Genetics
Long non-coding RNAs in intestinal carcinogenesis
and beyond

9/18/19 Mitchell Goldfarb
Hunter College Professor, Department of Biological
Sciences
Essential and Pathological Functions of FHF
Proteins in Excitable Tissues

10/9/19 Charles E. Schroeder
Columbia University College of Physicians and
Surgeons, Professor, Departments of Neurosurgery
and Psychiatry
Dynamic mechanisms of temporal prediction in
Active Sensing

10/23/19 Brian Mathur
University of Maryland School of Medicine, Associate
Professor, Department of Pharmacology
Reaching beyond consciousness to define
claustrum function

10/30/19 Gunnar Cedersund
Linköping University, Sweden Group Leader, Integrative
Systems Biology
Mechanistic modeling of the brain neurovascular
coupling: Merging electrophysiology with fMRI

11/20/19 Nora Newcombe
Temple University, Laura H. Carnell Professor of
Psychology and the James H. Glackin Distinguished
Faculty Fellow
Cognitive Maps: some people make them, some
people struggle

12/11/19 Charles Nicholson
NYU School of Medicine Professor of Neuroscience and
Physiology
Computer Models Clarify Structure of Brain
Extracellular Space

1/15/20 René Hen
Columbia University Professor, Departments of
Neuroscience, Psychiatry, and Pharmacology
Harnessing Hippocampal neurogenesis to improve
cognition and mood

1/22/20 David Kaplan
Tufts University Stern Family Professor in Engineering,
Professor and Chair, Department of Biomedical
Engineering
Tissue Engineering the Gut and Brain - Advances
and Needs

2/5/20 Anne Churchland
Cold Spring Harbor Chair of Neuroscience
Decisions, movements and wholistic behavior

2/12/20 Salvador Durá-Bernal
SUNY Downstate Medical Center Research Assistant
Professor, Department of Neurology
Data-driven multiscale modeling of cortical
Circuits

2/26/20 Konrad Kording
University of Pennsylvania Professor, Department of
Neuroscience
The activity of neurons is affected by many
aspectsof our behavior and our visual world

5/20/20 Anthony Zador
Cold Spring Harbor Laboratory Alle Davis Harrison
Professor of Biology
From Connectome to Computation

**Alumni, SUNY Downstate, School of Graduate Studies*