



**Gene-Brain-Behavior Interactions in Neurodevelopmental Disorders:
Towards an Integration of Perspectives on Disease Mechanisms**

Postdoc Seminar Series | UNC at Chapel Hill
Fall 2010 and Spring 2011 Syllabus

PURPOSE

This seminar examines the topics of genetics, neuroanatomy, physiology, and behavioral development to provide a broad-based and integrated background to understand the etiology and potential mechanism underlying neurodevelopmental disorders.

TIME AND LOCATION

Wednesdays, 9:00 am – 10:30 am
Carolina Institute for Developmental Disabilities (directions on last page)
101 Renee Lynne Ct, Room 206
Carrboro, NC 27510

SEMINAR COORDINATORS

Joe Piven, M.D. and Ben Philpot, Ph.D.

SECTION I NEUROSCIENCE

Coordinators: Tony Richey, Ph.D. + Jingjun Li, Ph.D.

- Sept 1 **Brain Anatomy (gross)**
Aldo Rustioni, M.D. | Professor of Cell & Development Biology, UNC
- Sept 15 **Early Brain Development (cellular-molecular)**
Eva Anton, Ph.D. | Professor of Cell and Molecular Physiology, UNC
- Sept 29 **Synaptic Plasticity in Developmental Disorders**
Ben Philpot, Ph.D. | Associate Professor of Cell and Molecular Physiology, UNC
- Oct 20 **Brain Function (fMRI, EEG, EP)**
Gabriel Dichter, Ph.D. | Assistant Professor of Psychiatry, UNC
Adjunct Assistant Professor of Psychology, UNC
Adjunct Assistant Professor of Psychiatry, Duke University Medical Center
- Oct 27 **Functional Neuroanatomy (relating to Neurodevelopmental Disorders)**
Aysenil Belger, Ph.D. | Associate Professor and Director of Neuroimaging Research,
Departments of Psychiatry and Psychology, UNC



SECTION II GENETICS

Coordinators: Portia McCoy, Ph.D. + Jason Yi, Ph.D.

- Dec 1 **Population Genetics**
Fred Wright, Ph.D. | Associate Professor of Biostatistics, UNC
- Dec 8 **Classical Genetics**
Fernando Pardo-Manuel de Villena, Ph.D. | Associate Professor of Genetics, UNC
Lineberger Comprehensive Cancer Center
Carolina Center for Genome Sciences
Laboratories for Reproductive Biology
- Dec 15 **Genetics of ADHD**
Allison Ashley-Koch, Ph.D.
Associate Professor of Medical Genetics, Duke University Medical Center
- Jan 12 **Gene-Brain-Behavior, Turner Syndrome**
Rebecca Knickmeyer, Ph.D. | Assistant Professor of Psychiatry, UNC
- Jan 19 **The Principles of Epigenetics**
Scott Bultman, Ph.D. | Assistant Professor of Genetics, UNC
- Jan 26 **Application to Complex Human Genetics**
Kirk Wilhelmsen, M.D., Ph.D. | Professor of Genetics, UNC
- Feb 9 **Epigenetics as it Applies to Human Developmental Disorders**
Yong-Hui Jiang, Ph.D. | Assistant Professor
Pediatrics, Division of Medical Genetics, Duke University School of Medicine

SECTION III BEHAVIOR

Coordinators: Sarah Short, Ph.D. + Jason Wolff, Ph.D.

- Feb 16 **Behavioral Development (relating to Neurodevelopmental Disorders)**
Steve Reznick, Ph.D. | Professor of Psychology, UNC
- Mar 9 **Social Development (relating to Neurodevelopmental Disorders)**
Lauren Turner, Ph.D. | Assistant Professor, UNC



- Mar 16 **Language Development (relating to Neurodevelopmental Disorders)**
Bruno Estigarribia, Ph.D. | Research Assistant Professor of Psychology, UNC
- Mar 30 **Repetitive Behaviors (relating to Neurodevelopmental Disorders)**
Jim Bodfish, M.D. | Professor of Psychiatry/Pediatrics, UNC
Director, Center for Development and Learning
- April 13 **Mouse Behavioral Phenotypes**
Sheryl Moy, Ph.D. | Associate Professor of Psychiatry, UNC
Director, Mouse Behavioral Phenotyping Laboratory

SECTION IV GENE X ENVIRONMENT INTERACTIONS

Coordinators: Sarah Short, Ph.D. + Tony Richey, Ph.D. + Portia McCoy, Ph.D.

- April 20 **Optogenetics**
Garret Stuber, Ph.D. | Assistant Professor of Psychiatry, UNC
- May 18 **Gene-Environment Interactions in Neurodevelopmental Disorders**
Cindy Lawler, Ph.D. | Scientific Program Administrator, Neuroscience
National Institute of Environmental Health Sciences (NIEHS)
- June 22 **Gene Therapy**
Steve Gray, Ph.D. | Research Associate, Gene Therapy Center, UNC
- TBA Imaging Genetics
Speaker TBD

DIRECTIONS

1. From campus or Hwy 54, 15-501 South/Hwy 54 Bypass West (traveling towards Carrboro).
2. Take Merritt Mill Rd. exit (just past Laurel Ridge Apartments);
3. Take left at top of ramp on Merritt Mill Road.
4. Take a left on Smith Level Road at the stoplight at bottom of hill.
5. Go past 4 lights and at next block turn right on Rock Haven Rd.
6. Take first Left onto Renee Lynne Court; building is on left at 101 Renee Lynne Court.