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.

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<tr>
<th>SECTION I</th>
<th>NEUROSCIENCE</th>
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<td>Coordinators:</td>
<td>Tony Richey, Ph.D. + Jingjun Li, Ph.D.</td>
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| 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.