



2015 Summer Institute in Cognitive Neuroscience

Week 2: Cognitive Neuroscience of Development Course Director: Susan Bookheimer (UCLA)

The developing human brain involves the intricate orchestration of molecular-, cellular-, circuit- and systems-level mechanisms, under the control of genes and influenced by prenatal and postnatal environmental factors. This week of the Summer Institute will provide in-depth training on how the human brain develops in healthy individuals, and how developmental disorders arise from a host of influences operating at different levels of organization and during different stages of maturation.

Monday (6/29): Genetics and Imaging I

8:30-9:00	Breakfast
9:00-9:30	Introductory Remarks – Susan Bookheimer (UCLA)
9:30-10:45	Giovanni Coppola (UCLA) – Methods and approaches in identifying genes critical for brain development and developmental disorders
10:45-11:00	Break
11:00-12:15	Jason Stein (UCLA) – In vitro models of developmental disorders
12:15-1:45	Lunch
1:45-5:00	Lab Session: An introduction to the event-related potential technique
5:00	Adjourn

Tuesday (6/30): Genetics and Imaging II

8:30-9:00	Breakfast
9:00-10:30	Alan Evans (McGill) – Imaging genetics: computational approaches and techniques:
10:30-10:45	Break
10:45-12:15	Susan Bookheimer (UCLA) – Imaging genetics in development: effects of risk and resiliency genes:
12:15-1:45	Lunch
1:45-5:00	Lab Session: TMS workshop
5:00	Adjourn

Wednesday (7/1): Stress and Development

8:30-9:00	Breakfast
9:00-10:30	Anne Andrews (UCLA) – Serotonin in early development: maternal stress, pre-natal exposure to selective serotonin reuptake inhibitors
10:30-10:45	Break
10:45-12:15	Nim Tottenham (UCLA) – Early exposure to stress and deprivation and long term effects on brain development
12:15-1:45	Lunch
2:00-3:30	Mike Miller (UCSB) Scientific Misconduct and fMRI: When Is The Line Crossed?
3:30-4:30	Steve Grant (NIDA) Grant Writing Workshop

Thursday (7/2): Adolescence, High Risk Behavior and Addiction

- 8:30-9:00 Breakfast
- 9:00-10:30 Jay Giedd (UCSD) – Healthy brain development: Insights from psychiatry
- 10:30-10:45 Break

- 10:45-12:15 BJ Casey (Cornell University) – The adolescent brain
- 12:15-1:45 Lunch
- 1:45-3:15 Adriana Galvan (UCLA) – Neuroimaging of high risk behaviors and addiction
- 3:30-5:00 Debate Preparation (no lab)
- 6:30-8:00 **DEBATES** (fellows will be organized into teams during week 1)
LOCATION: Loma Pelona Center

Friday (7/3):

- 8:30-9:00 Breakfast
- 9:00-10:30 Elizabeth Sowell (Children’s Hospital, Los Angeles) – Functional and structural brain imaging in toxic exposure and severe developmental disabilities-
- 10:30-10:45 Break
- 10:45-12:15 Mirella Dapretto (UCLA) – Functional and structural brain imaging in developmental disorders of social behavior
- 12:15-1:45
- 1:45-3:30 Lucina Uddin (University of Miami) – Computation and network analysis for understanding developmental connectivity

- 5:00-6:00 Reception **Banquet Loma Pelona Center Patio**
- 6:00-8:00 Dinner **Banquet Loma Pelona Center**

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