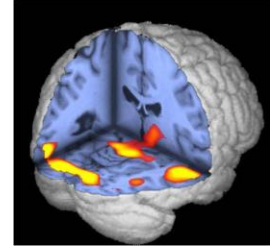


**Summer Educational Program in
Neuropsychiatric Functional Neuroimaging**

June 27, 2016 – July 29, 2016

Functional Neuroimaging Laboratory

Brigham and Women's Hospital, Harvard Medical School



Laboratory Director: Emily Stern, MD Laboratory Co-Director: David Silbersweig, MD
Educational Program Directors: Einat Liebenthal, PhD and Daniel Weisholtz, MD

Tentative Program Curriculum: This program is designed to introduce students at all levels to functional neuroimaging methods and how they can be applied to study of the systems level neuropathophysiology underlying neuropsychiatric disorders.

1. Lectures. The course will include one or more lectures on the following topics

Methodology

- Electronic search engines and resources
- Critical reading of scientific papers
- Basic applied statistics
- Cerebral blood flow and metabolism
- fMRI acquisition and analysis for mapping brain circuitry
- BOLD-EPI/fMRI
- Designing an experiment in E-prime
- Electrophysiological methods
- PET neuroimaging
- EEG demo
- Theoretical and computational neuroscience

Neuroanatomy, Neuropsychiatry, Neuroimaging

Applications

- Introduction to Functional Imaging of Neuropsychiatric Disorders
- Neuroanatomy
- Neuropsychiatric Signs & Symptoms
- Language system - neuroanatomy and neurophysiology
- Language mapping: Clinical application of fMRI and EEG
- Epilepsy and psychosis
- Psychogenic Nonepileptic Seizures (PNES) and Somatoform Disorders
- Neurophilosophy
- Mapping the meditative mind
- Mindfulness Practicum

2. Observation of an fMRI experiment

3. Use of online resources for self-directed learning

4. In depth literature review on a topic of choice. There will either be a required short paper or presentation to the other program participants at the end of the program

For further information please contact Emily Stern, MD: estern@bwh.harvard.edu AND Andrea Field: afield1@partners.org
