

**FALL FY07 AWARDS ROSTER**  
**RESEARCH & TRAINING FELLOWSHIPS FOR CLINICIANS**

*\$50,000 awards for one year*

- Name:** Christopher Anderson, M.D.  
**Institution:** Stanford University Medical Center  
**Project:** Disruption of sleep architecture related to high-frequency stimulation of the anterior thalamus  
**Preceptor:** Robert Fisher, M.D., Ph.D.  
**Lay Summary:** Deep brain stimulation is an experimental but promising treatment for epilepsy. Deep brain stimulations for epilepsy involve implantations of electrodes into the thalamus – an important deep brain structure. The thalamus is a necessary structure in the generation and maintenance of normal sleep. Injury to the thalamus can disrupt or abolish sleep. This project will study sleep patterns in patients who are already undergoing thalamic stimulations to investigate whether there is sleep disruptions caused by this new treatment modality.
- Name:** Sarah Barnett, M.D.  
**Institution:** Children's Hospital Boston  
**Project:** Identification of risk factors for refractory seizures in term newborns with acute encephalopathy  
**Preceptor:** Janet Soul, M.D.  
**Lay Summary:** Recent studies show that bumetanide, unlike other medicines currently in use, controls seizures in newborns. This research seeks to pave a way for future clinical trials of this exciting discovery by examining factors that will identify newborns at greatest risk for hard-to-treat seizures. These data will be used to help design effective studies to test bumetanide in humans.
- Name:** Autumn Klein, M.D., Ph.D.  
**Institution:** Brigham and Women's Hospital  
**Project:** Obstetrical and Neurological Outcomes in Women with Epilepsy: A Prospective Study  
**Preceptor:** Edward Bromfield, M.D.  
**Lay Summary:** Epilepsy is a disease of repeated seizures, which may include violent movements called convulsions, or may be milder events, such as staring and “spacing out” for a minute to two. During pregnancy and delivery, women with epilepsy (WWE) may have more complications, such as Cesarean-section (C-section) and seizures than women without epilepsy. For WWE, a C-section may be done out of fear of their having a seizure, rather than for the usual medical reasons that this procedure is performed. Seizures during pregnancy, labor, or delivery may harm the baby or mother. This research, at the time of childbirth, will ask women with epilepsy and their doctor’s questions about their epilepsy, their delivery and their medical care during pregnancy. It is expected that WWE will have more C-sections during delivery, but it is hypothesized that most WWE will not have a seizure during delivery.

**Name:** Travis Losey, M.D.  
**Institution:** Barrow Neurological Institute  
**Project:** Utility of postictal sodium MRI for localization of partial onset seizures  
**Preceptor:** David Treiman, M.D.  
**Lay Summary:** Sodium magnetic resonance imaging is a type of brain scan that looks at the amount of sodium ions in a region of tissue. During a seizure, brain cells are flooded with sodium ions. This study will examine using sodium magnetic resonance imaging performed just after a seizure to identify regions of the brain affected by a seizure.