

**Targeted Research Initiative for Mood Disorders**

**Meritorious Research 2009**

**David Loring, Ph.D.**  
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**Atlanta, GA**

**Application Title:**

Metabolic and DTI abnormalities in TLE with and without comorbid depression

**Award Amount:** \$75,000

**General Audience Summary:**

Patients with temporal lobe epilepsy (TLE) are more likely to become depressed compared to patients with other brain diseases, although many TLE patients are not depressed. The portion of the brain in the temporal lobe where seizures start is important for emotion, but for depression to develop, additional areas of the brain connected to the temporal lobe likely are involved. This study will use new methods of picturing the connections of the brain to investigate whether depressed TLE patients also have impairments in the parts of the frontal lobe that have been associated with depression in other diseases.

**Andrey Mazarati, M.D., Ph.D.**  
**Associate Professor**  
**The Regents of the University of California, Los Angeles**  
**Los Angeles, CA**

**Application Title:**

Hippocampal neuro-inflammation as a mechanism of depression in epilepsy

**Award Amount:** \$74,000

**General Audience Summary:**

Depression is frequently observed in, and contributes to a low quality of life in patients with epilepsy; at the same time, mechanisms that underlie epilepsy-associated depression are poorly understood, and effective therapies of this condition are lacking. The proposed project examines whether epilepsy-associated depression may develop as a result of inflammation in specific brain areas, and consequently whether depression in epilepsy patients may be successfully treated with anti-inflammatory drugs.