**Yale University, Department of Psychiatry**

# Psilocybin-Induced Neuroplasticity in the Treatment of Major Depression

**Purpose:** This study will investigate neurobiological and psychological effects of psilocybin-assisted therapy in people with major depressive disorder. The primary hypothesis is that psilocybin administered in a therapeutic context will result in neuroplastic changes that parallel improvement in symptoms of depression.

**Population:**
- Patients with current moderate to severe major depressive disorder despite one adequate antidepressant trial
- Engaged in treatment with a mental health provider
- Participants located close in proximity to New Haven, CT (northeastern states) strongly preferred
- To participate, patients will need to be off or taper off of psychiatric medications (e.g., SSRIs) that may alter the effects of psilocybin (this not required at time of screening and should be discussed with study physicians)

*Major exclusions include:* uncontrolled medical and neurological conditions, history of psychotic disorders or bipolar disorders in participant or first degree relatives, active substance abuse disorder.

**Design:**
- Approximately 16 weeks of study participation
- Two experimental sessions approximately four weeks apart during which participants will receive two of the following three interventions: 1) placebo, 2) low dose psilocybin, and 3) medium-high dose psilocybin
- Experimental sessions will be embedded within a psychotherapeutic framework consisting of eight preparatory, debriefing, and follow-up sessions with trained psychotherapists.
- Electroencephalographic (EEG) data will be collected at four time points to assess changes in neuroplasticity.

**Compensation:** Subjects can receive up to $350 for participating in this study

**For More Information about Study Participation:**
*Dr. Deepak Cyril D'Souza (Principal Investigator): (203) 932-5711 x 2594, deepak.dsouza@yale.edu*
*Uma Dieffenbach (Research Coordinator): (203) 932-5711 x2526, uma.dieffenbach@yale.edu*
*Dr. Jordan Sloshower (Co-investigator): (203) 974-2693, jordan.sloshower@yale.edu*