STATISTICAL ANALYSIS PLAN: CYP2B6 Polymorphisms in Ketamine
7/9/13

Primary outcome measures will be ketamine metabolism, measured as plasma norketamine/ketamine concentration-time $AUC_{0-\infty}$ ratio, by *CYP2B6*6* hetero or homozygote genotype. Secondary outcome measures will include ketamine enantiomers area under the plasma concentration curve ($AUC_{0-\infty}$), maximum plasma concentration, apparent oral clearance (and by *CYP2B6*6* hetero or homozygote genotype) and norketamine enantiomers formation clearances (and by genotype). Area under the curve (AUC) of plasma ketamine concentration is determined by noncompartmental methods using nonlinear regression analysis. Clearance is dose/AUC.

Plasma and urine ketamine and metabolite concentrations are analyzed by noncompartmental methods. Outcome measures in wild-type and *CYP2B6*6* carriers will be evaluated by ANOVA. If the hypothesis is correct, we will observe diminished ketamine metabolism and clearance in *CYP2B6*6* carriers.

Sample size calculation is based on the comparison of two groups, genetic variants versus controls. Derived from the belief that detection of a 30% difference in metabolism would be clinically significant and calculating a standard deviation of 25% it is estimated that 12 patients per group is an adequate sample size.