Investigator:	**Madeleine Hackney** Phone: (314) 412-4852 ext. 5006 Email: mehackn@emory.edu
Primary Research Interest:	Other
Description of Research:	This trial will recruit veterans and non-veterans with definite PD to compare the efficacy of PDAE versus WAE for motor, non-motor and neuroprotective effects. The primary outcome measure will be the UPDRS-IV scale, a patient-reported measure of experience of MRMF. 1.Examine effects of Training (3 mos.) and Maintenance phases (13 mos.) of PDAE vs. WAE on patient experience of OFF times. Prediction: Groups will report reduced OFF times, but PDAE effect will be greater at 3 and 16 months. 2.Compare PDAE vs.WAE at 3 and 16 mos. on endurance, behavioral and neural measures of spatial cognition. Predictions:1. PDAE will improve as much as WAE on endurance but PDAE will improve more on behavioral measures of spatial cognition. 2. Behavioral and neural measures of spatial cognition post-intervention will be positively correlated in PDAE. 3.Determine if PDAE vs. WAE vs. non-intervention controls is neuroprotective and if this neuroprotection is associated with OFF time (Aim 1), and cognitive (Aim 2) response to PDAE and WAE. Predictions: At 16 months, slowed NM loss and decreased iron accumulation rate will be noted in PDAE and WAE vs. non-intervention participants and slowed neurodegeneration will be associated with spatial function response.
Relevance to VA:	People with PD have limited options for pharmacological and surgical treatments. PDAE may play a key role in reducing OFF Time experiences but empirical evidence is needed to confirm short and long term effects upon medication-related motor fluctuations, to influence physician prescribed treatments to veterans with PD. Our findings will be generalizable to the 75% of people with PD who experience OFF times, and the 50% with CI. We will target those people who have OFF times and include those with MoCA scores