



Apr 14th, 2:35 PM - 3:35 PM

Behavior Analysis in a Model of Pre-Clinical Parkinsonism

Shannon H. Baumer, '07

Illinois Wesleyan University

Paul A. Garris, Faculty Advisor

Illinois Wesleyan University

Follow this and additional works at: <http://digitalcommons.iwu.edu/jwprc>

Shannon H. Baumer, '07 and Paul A. Garris, Faculty Advisor, "Behavior Analysis in a Model of Pre-Clinical Parkinsonism" (April 14, 2007). *John Wesley Powell Student Research Conference*. Paper 6.
<http://digitalcommons.iwu.edu/jwprc/2007/posters2/6>

This Event is brought to you for free and open access by The Ames Library, the Andrew W. Mellon Center for Curricular and Faculty Development, the Office of the Provost and the Office of the President. It has been accepted for inclusion in Digital Commons @ IWU by the faculty at Illinois Wesleyan University. For more information, please contact digitalcommons@iwu.edu.

©Copyright is owned by the author of this document.

Poster Presentation P12

BEHAVIOR ANALYSIS IN A MODEL OF PRE-CLINICAL PARKINSONISM

Shannon H. Baumer and Paul A. Garriss*

Biology Department, Illinois Wesleyan University
and Illinois State University

This project was designed to evaluate a novel behavioral measurement of preclinical dopamine (DA) loss in a rat model of Parkinson's Disease (PD). Freely moving lesions, cannula implantation, rat handling, and behavior analyses were combined to understand the relationship between behavioral deficits and the degree of DA loss in the rat striatum.

A neurotoxin, 6-Hydroxydopamine (6-OHDA) was injected into the substantia nigra pars compacta (SNc) of the rat brain to induce PD-like symptoms. Utilizing the cylinder test, the rat's behavior was measured pre-surgery, post-surgery, and post-lesion to quantify behavioral deficits resulting from 6-OHDA. Prior to lesioning, cannula surgery was performed to differentiate between surgical and lesioning effects. Results confirmed a direct, positive correlation between the degree of neurotoxin injected and the behavioral deficit experienced.