

## UROP Projects for the 2006-2007 Academic Year

**Student:** Corey Gaiser, senior

**Sponsor:** Dr. Stephen Trumble, Biology

**Title of UROP Project:** Lipid Peroxidation of Harbor Seals

**Project Summary:** The objective of this research was to determine if there is a correlation between the age of harbor seals and the intensity of lipid peroxidation and to identify any factors that contribute to increased lipid oxidation. Portions of this study were conducted in the state of Alaska; in partnership with the Alaska Fish and Game.

**Student:** Matthew Parker, senior

**Sponsor:** Dr. Jie Song, Chemistry

**Title of UROP Project:** Is C<sub>18</sub>N<sub>12</sub> a Stable Buckyball?

**Project Summary:** This study extended investigations to small buckyball, C<sub>30</sub>, which is more complicated than C<sub>28</sub> due to the existence of several molecular symmetries. The N-substituted product of C<sub>30</sub>, C<sub>18</sub>N<sub>12</sub>, shows great instability in experimental work and the theoretical method is the only one available. In this study, geometries were optimized at Density Functional Theory (DFT) level. The GAMESS suite of programs and MacMolPlt were used for all calculations and for visualization.

**Student:** Kyle Fluegge

**Sponsor:** Renee Zietek; University Outreach

**Title of UROP project:** *50 years of Community Partnership*

**Project Summary:** This project examined the history of University of Michigan-Flint's role and involvement in community affairs over the past 50 years.

**Student:** Keith Fluegge and Ryan Glover

**Sponsor:** Dr. Heather Seipke, Communications

**Title of UROP project:** *Elderly Women and Assisted Living: Changes in Identity During Changes in Context*

**Project Summary:** Through the use of in-depth interviews this study examines elderly women's communication about transitioning to assisted living and personal sense of self. A combination of communication and aging theory and socio historical factors aid in understanding the communication elderly women use to describe themselves within the context of life events prior to and after becoming an assisted living resident.

**Student:** Brian McGhee

**Sponsor:** Dr. Traki Taylor, Education

**Title of UROP Project:** *Nannie Helen Burroughs*

**Project summary:** This project explored the life and work of Nannie Helen Burroughs, African American educator, orator, religious leader, and businesswoman.

**Student:** Keith Fluegge

**Sponsor:** Bryan Spencer, Urban Health and Wellness Center

**Title of UROP project:** *Health Care, Health Walk, CRIM's Flint Children*

**Project summary:** This project examined the functionality and efficacy of various health-related programs sponsored by the Flint CRIM Fitness Foundation