Department of Physics MCMICKEN COLLEGE OF ARTS AND SCIENCES

SUMMER RESEARCH OPPORTUNITIES FOR UNDERGRADUATE WOMEN

APLICATION DEADLINE: March 1, 2006

The Department of Physics is pleased to offer the following research project for the summer of 2006. Interested students are urged to contact the faculty member(s) directing the project that most interests them. By contacting the faculty member, you can discover more about the project, learn what your responsibilities will be and if possible, develop a timetable for the twelve-week research period.

<u>DEVELOPMENT OF TECHNOLOGY FOR DYNAMIC PULMONARY FUNCTION</u>

MEASUREMENTS
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We have an opportunity for a student to work on atomic spectroscopy measurements related to detecting physiologically inert gases in exhaled breath, and in computer simulations related to using such measurements to measure pulmonary function. The student should have completed first-year calculus-based physics. Knowledge of, or willingness to learn some pulmonary physiology, is necessary. The position will entail extensive computer programming, although no specific knowledge of computers or experience is necessary.