

**McMICKEN COLLEGE OF ARTS AND SCIENCES  
Biological Sciences**

**SUMMER RESEARCH OPPORTUNITIES  
FOR UNDERGRADUATE WOMEN**

**APPLICATION DEADLINE: March 1, 2006**

*The Department of Biology in the College of Arts and Sciences 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.*

**Genetic Diversity in the Endangered American Chestnut**

**Professor Steven Rogstad**  
Department of Biological Sciences  
721 Rieveschl  
University of Cincinnati, Cincinnati, Ohio 45221-0006  
Tel. (513)556-9744  
Fax. (513)556-5299  
[Stephen.rogstad@uc.edu](mailto:Stephen.rogstad@uc.edu)

**Project Description**

Topics of research for summer 2006 include: 1. Exploring genetic diversity in wild and bred populations of the endangered American chestnut. The goal is to contribute to an understanding of how best to reintroduce newly developed, chestnut-blight-resistant strains back to the forests of North America to preserve maximum genetic diversity. 2. Computer modeling of different reintroduction plans will be conducted to determine which are best for preserving genetic diversity. This is an opportunity to learn some basics of population genetics theory, basic techniques for the extraction, manipulation, and analysis of DNA, and to develop computer programming and/or analysis skills.