

**Department of Science and Health
UC Clermont College**

**SUMMER RESEARCH OPPORTUNITIES
FOR UNDERGRADUATE WOMEN**

APPLICATION DEADLINE MARCH 1, 2012

The Department of Science and Health is pleased to offer the following research project for the summer of 2012. 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.

Project Title: The Effects of Atrazine on Bluegreen Algae

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Project Description

As part of The East Fork Watershed Research Collaborative, I have been involved in determining the stimulus for bluegreen algae blooms and what the effects of the herbicide Atrazine has on bluegreen algae. Recent work has been to establish a protocol for consistently growing the cyanobacter in the lab and to quantify the fluctuations of growth when various concentrations of nutrients are added. The next step is to add the herbicide Atrazine to the cultures and to determine the interaction between the culture and the herbicide. Because bluegreen algae are bacteria and not plantlike little is known about the interaction. This knowledge will be of great help in dealing with algae blooms in lakes.

The summer research project will include treating the cultures with Atrazine and measuring the algae response by quantifying chlorophyll production using spectrometry and High Performance Liquid Chromotography. The student researcher will grow cultures, extract the chlorophyll and then measure the amount of chlorophyll produced. At the termination of the project the student will organize and analyze the results of the research.