

Dr. Robert G. Weilbaecher Research Award

Summer 2007

Purpose

A research award was established by Dr. Robert G. Weilbaecher, an alumnus of the Department of Biological Sciences, Loyola University New Orleans. The award (\$4,000) provides support for a Loyola biology major to conduct state-of-the-art research in a research program at an off-campus institution during 8 weeks of the summer. Each year, a different research mentor will be selected to serve as host research program at a nationally eminent institution.

Award Support and expectations

The student selected for the award will receive a \$3,500 stipend and an additional \$500 for expendable supplies associated with the research project. The student is expected to work closely with their research mentor (see attached pages) for approximately eight (8) weeks during the summer. At the completion of the summer, the student is expected to prepare a written thesis describing their research and to present their results at the Annual Biological Sciences Undergraduate Research Symposium.

Application

Students applying for this opportunity must meet the following requirements and submit the following materials to the Chairperson, Department of Biological Sciences, Loyola University.

Minimum requirements:

- ❖ Be a Loyola Univ. Biological Sciences major with **at least junior status**.
- ❖ Have a minimum of **3.2 GPA** in Science courses
- ❖ Submit a one-page (single-spaced) statement of your **career goals**
- ❖ Submit a one-page (single-spaced) statement of **why you would like to pursue this research opportunity**.

Deadlines and information

Applications are being accepted beginning immediately. **Deadline for applications is March 15th**. For further information, contact **Dr. Frank Jordan**, Chairperson, Department of Biological Sciences, Loyola University New Orleans. (504) 865-3829 and/or jordan@loyno.edu.

2007 Weilbaecher Mentor

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are needed to see this picture.

Rose Ann Cattolico received her doctorate at the State University of New York, Stony Brook, in 1973 and served as a postdoctoral fellow at McGill University until 1975 when she joined the faculty of the University of Washington. Her main research interests have been in the area of chloroplast genome architecture and gene function in non-chlorophyll b containing algae as well as functional genetic diversity within stramenopile populations. She currently teaches classes in cell biology and algology. During her tenure at the University of Washington she has successfully mentored ten PhD students and six masters degree students in the completion of their degrees, and hosted fifteen postdoctoral fellows. She sponsors three to six undergraduates per year in the lab.

Dr. Cattolico has developed an experimental system based on *Heterosigma akashiwo*, a naturally wall-less, toxic alga that blooms in coastal regions world-wide. In the laboratory, cultures of this alga can be synchronously grown and axenically maintained. In the field, *Heterosigma* forms massive brown tides that impact the survival of eco-cohorts at every trophic level. This alga has been shown to kill finfish, compromise fish and sea urchin egg development and impact copepod as well as oyster survival. Dr. Cattolico uses *Heterosigma* to examine various aspects of chloroplast evolution, gene expression, signal transduction, Calvin Cycle, chloroplast replication, motility, and the effects of pollution on growth and development of estuarine algal populations.

A thorough description of Dr. Cattolico's research program and list of publications is available at <http://faculty.washington.edu/racat/index.php>.