

Position # S10-008

Faculty Member Contact Information

Name: **Kelly Barry**
Department: **Biological Sciences**
E-mail Address: **kbarry@siue.edu**

Description of the URCA Assistant Position(s)

Number of students requested: **1**
Number of students to be funded: **0 (This will be an unfunded position.)**
Will the student(s) be eligible to earn course credit? Yes No If yes, in which course? **Biol 493**
(If students are to earn credit hours for participating, they should earn 3 credit hours.)
Location of research/creative activities: **SL022A (my research lab)**

Brief description of the nature of the research/creative activity:

This project will investigate methods to reduce or eliminate the strong cold dormancy requirements of many native seeds. We will also initiate the investigation of dormancy genetic regulation in native seeds.

Brief description of student responsibilities:

The student will systematically investigate the influence of plant growth regulators and temperature on the dormancy period of native seeds. The student will conduct literature reviews and design PCR primers based on published information from *Arabidopsis* and other plants in order to PCR amplify gene sequences, quantitate gene expression, clone the dormancy sequences from native plants, add sequence information to sequence database.

URCA assistant positions are designed to provide students with *research or creative activities* experience. As such, there should be measurable, appropriate outcome goals. What exactly should your student(s) have learned by the end of this experience?

The student will maintain an organized lab notebook, learn a variety of plant tissue culture and molecular techniques for PCR, compile/submit information to DNA databases, and present their findings as a poster at appropriate conferences (Society for In Vitro Biologists, Midwestern American Society of Plant Biologists, Illinois State Academy of Science).

Requirements of Students

If the position(s) require students to be available at certain times each week (as opposed to them being able to set their own hours), please indicate all required days and times:
None

If the location of the research/creative activities is off campus, must students provide their own transportation?
Yes _____ No _____ N/A

Must students have taken any prerequisite classes? Please list classes and preferred grades:
Biol 120 with a B or higher.

Other requirements:
None

Notes to applicants (i.e., any other information you'd like applicants to know about you or the position before applying):
Project can be initiated in Summer 2009 and will continue into Spring 2010.