

Faculty Member Contact Information

Name: **Kelly Barry**
Department: **Biological Sciences**
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Description of the URCA Assistant Position(s)

Number of students requested: **1**

Number of students who will be funded: **0 (This will be an unfunded position.)**

Will the student be eligible to earn course credit? Yes **X** 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: **SL3223 (my research lab)**

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

Determine the types and quantity of AMF fungi associating with the roots of *Trillium recurvatum*, a native plant, using molecular biology protocols such as PCR amplification and DNA sequencing.

Brief description of student responsibilities:

Student will purify total DNA from plant roots, PCR amplify AMF fungal DNA from total DNA using PCR primers that specifically recognize AMF fungi, clone the AMF into plasmids for DNA sequencing, analyze the sequence data to determine specific fungi associated with the plant roots.

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 molecular biology techniques for cloning and sequencing, compile and analyze sequence information to identify AMF fungi from sequence databases, and present their findings as a poster at appropriate conferences (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):

The student will be working closely with two Biological Sciences faculty members, Dr. Tom Fowler and Dr. Kelly Barry. Project can be initiated in Summer 2009 and continue into Spring 2010.