





Faculty Member Contact Information

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Contact Info	
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Department	Chemistry

1 Funded, Unfunded URCA Assistant

	This position is ONLY open to students who have declared a major in this discipline.	M
	This project deals with social justice issues.	
	This project deals with sustainability (green) issues.	
	This project deals with human health and wellness issues.	
	This project deals with community outreach.	
X	This mentor's project is interdisciplinary in nature.	I

Are you willing to work with students from outside of your discipline? If yes, which other disciplines?

- Yes, Biochemistry, Biology, Pharmacy

How many hours per week will your student(s) be required to work in this position?

(Minimum is 6 hours per week; typical is 9)

- 9 hours

Will it be possible for your student(s) to earn course credit?

- Yes-- CHEM296, 396, 496 (0-2 credit hours)

Location of research/creative activities:

- SW2010

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

Student will conduct experiments to isolate biopolymers, including DNA and proteins, from nature resource and purify desired human proteins through protein recombinant technology. And the student will have opportunity to study their functions or use them for application, such as environmental waste cleaning. Student will also have to conduct literature search, standardize protocols, and perform data analysis.

Brief description of student responsibilities?

Student(s) will conduct protein purification through chromatography. They may involve the characterization of enzymes with state-of-the-art instrumentation, such as HPLC, FPLC, fluorescence and calorimetry.

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?

There are plenty of measurable outcomes for life science research. In the past, my undergraduate students perform research and give poster or oral presentations in the SIUE Probst lecture and senior assignments, as well as professional society meetings including American Chemical Society (ACS) and American Society for Biochemistry and Molecular Biology (ASBMB). They are also co-authors in peer-review journals.

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:

- Students are encouraged to conduct his/her research every day (Mon. –Fri.) because biochemical research is time-consuming.

If the location of the research/creative activities involves off campus work, must students provide their own transportation?

- N/A

Must students have taken any prerequisite classes? Please list classes and preferred grades:

- Prefer to student has taken or is taking Biochemistry I (CHEM451A).

Other requirements or notes to applicants:

- Chemical, Physical, or biological related majors.