

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.	
	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

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

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

Yes CHEM296, 396, 496 0-2

Location of research/creative activities:

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

Students will conduct experiments to produce and purify recombinant proteins, such as nitric oxide synthases and NADPH oxidases, which play key roles in various disease processes. In addition, students will perform literature reviews, optimize experimental protocols, and analyze the resulting data.

Brief description of student responsibilities?

Student(s) will conduct experiments to generate recombinant proteins and purify the protein using a variety of chromatography, including FPLC and HPLC. Further, the student will study the protein-protein interaction by spectroscopy (UV/Vis, fluorescence, dynamic light scattering) and differential scanning calorimetry (DSC).

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?

Yes

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 expected and encouraged to conduct their research daily (Monday through Friday), as biochemical experiments are often time-consuming and require consistent effort.

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 or CHEM351).

Other requirements or notes to applicants:

Chemistry, Biochemistry, or Biology majors