

IDeA National Resource Summer Internships for Undergraduate Students in Proteomics

Summer Internship May 22nd- July 28th, 2023

[Plot your course for the future...Explore a Summer Internship in](#)

BIOMEDICAL RESEARCH THROUGH THE PROTEOMICS CORE FACILITY

Looking for a summer research experience? Paid summer research internships are available for two undergraduate students who are rising juniors or seniors. Selected students will work on a project relevant to human health led by faculty and scientists in the **IDeA National Resource for Quantitative Proteomics** located in the Winthrop P. Rockefeller Cancer Institute at the University of Arkansas for Medical Sciences. The scope of the projects will focus on leveraging the core facilities state-of-the-art mass spectrometers to generate proteomic data from biologically relevant samples (tissue, plasma, cell lysate, etc.) and analyzing this data using the Bioinformatics Core housed here at UAMS. As a primary outcome of this internship, students will gain exposure to alternative career options in biomedical research through participation in the daily operations of a research core facility. Students will interact with core facility users and gain experience in experimental design considerations, data collection/analysis/delivery, bioinformatics and administration. Upon completion of this internship, students will have unique insight on how a core facility operates both scientifically and professionally.

Highlights of the summer activities:

- Work with the scientists at the IDeA National Resource for Quantitative Proteomics at UAMS
 - Observe experimental design conferences with investigators from around the nation
 - Learn proteomic sample preparation techniques
 - Operate Orbitrap Mass Spectrometers used to collect high throughput proteomic data
 - Analyze proteomic data and perform protein searches using Mascot, MaxQuant and Scaffold software
 - Participate in ongoing proteomic research projects
 - Communicate summer project findings in an oral presentation
- Join a community of undergraduate research students from Arkansas schools all working on biomedical research at UAMS
- Special activities include talks on scientific ethics, CV writing, scientific communication through writing and oral presentations and social activities with other research students

Summer Internship May 22nd- July 28th, 2023

Co-hosted by the IDeA National Resource for Quantitative Proteomics at UAMS and the IDeA Network of Biomedical Research Excellence (Arkansas INBRE)

Applications are due February 1, 2023

<https://proteomics.piestar-rfx.com/opportunities>

Please direct any questions to:

Dennis Province PhD

Director of Education and Outreach

(501) 526-6000 Ext 24928

Proteomics_Internship@uams.edu



Students with an undergraduate science major (e.g., biology, chemistry) and that are interested in a career in science should apply for this internship. The Biomedical Research internships are designed for students with a solid background in science who wish to know about translational research, scientific work in the laboratory that translates to direct patient care. This internship will provide experience in Proteomic and Bioinformatic Sciences and is designed to encourage pursuing a career in biomedical research.

Specifics of the Undergraduate Student Internship Program

- Internships are available for Arkansas undergraduate students who will be rising juniors or seniors majoring in science, (e.g. biology, chemistry or related major)
- An internship includes a stipend, along with university privileges for the participants on campus including use of the library, computer laboratories, and recreational facilities.
- A travel award is available for each participant, for travel to a national conference or regional scientific meeting to present their research in the year following the internship
- A major goal of the Proteomic Core Summer Student Research Internship Program is to involve Arkansas students from groups traditionally underrepresented in science in a stimulating research experience.
- Participating students will prepare a paper in journal format and a poster presentation at the 10th Annual Arkansas Summer Undergraduate Research Symposium (ASURS) at the end of the 10-week program.

Selection Criteria

Applications will be reviewed by an *ad hoc* committee comprised of the Faculty and Staff from the IDeA National Resource for Quantitative Proteomics at UAMS. Selection criteria for the fellowship will include the student's GPA, faculty recommendations from the applicant's home institution, and evidence for inclination toward a career in research. Students selected to participate in the program will be notified by March 14th.