

Job Description

Title of Position: Laboratory Technician (Academic Hourly)

Primary Position Function/Summary (1-2 sentence summary): Technician's primary job is to perform sample production of proteins and sterols in order to support NIH-funded research projects. Other duties include maintaining laboratory equipment (including FPLC and HPLC systems), performing mutagenesis by construct design, and optimization of protein expression with isotopically labeled media. The successful applicant will receive excellent training in handling cell cultures, protein purification methods, and analytical techniques including solution-state NMR, mass spectrometry, and liquid chromatography. This position provides an excellent opportunity for career advancement through the development of new skills and co-authorship of high-impact publications.

Major Duties and Responsibilities (detailed duties):

- Perform cell culture, including preparation of growth media, inoculation, and incubation using proper aseptic technique
- Design and preparation of bacterial expression plasmids
- Protein purification using techniques including ammonium sulfate precipitation, preparative ultracentrifugation, and chromatography using an FPLC
- Extraction of natural products from cell culture using solid-liquid extraction methods and liquid chromatography
- Perform quality control analysis of samples using UV absorption spectroscopy, solution-state NMR, mass spectrometry, and HPLC
- Develop knowledge of isotope labeling patterns and NMR data analysis procedures in order to contribute to the design of ongoing research

Education:

- Required: Bachelor's degree in chemistry, biochemistry, molecular biology, or a related field
- Preferred: Undergraduate GPA of 3.5 or higher

Experience:

- Required: Undergraduate research experience in chemistry, biochemistry, molecular biology, or a related field
- Preferred: Experience with proper aseptic technique, use of a pH meter, centrifugation, and chromatography

Training (needed to be considered for the position; do not include any on-the-job training needed):

- Required: Applicant should have an interest in NMR spectroscopy and general techniques in molecular biology and biochemistry.

Knowledge Requirements:

- Required: Standard chemical and biological laboratory techniques and laboratory safety
- Preferred: Buffer and solution preparation, cell culture, and protein purification

Please describe the urgent or specialized need for this appointment.

We strongly prefer a candidate that can start work in January 2017.

How was this candidate identified and selected for this position?

If other candidates were considered, please explain the selection process and why the appointee was selected over any other candidates.