Postdoctoral Research Fellow (proteomics / metabolomics)

**Position Description:** The Department of Plant & Environmental Sciences, Clemson University, Clemson SC is seeking highly motivated Postdoctoral Research Fellow to explore the physiology and biochemistry of stress tolerance in plants using mass spectrometry-based metabolomics/proteomics. Candidates with extensive experience in employing proteomics/metabolomics approaches in other biological systems (non-plant) are also encouraged to apply. The project involves tracking the tissue-specific metabolism and biotransformation of xenobiotics, and the associated changes in the physiology, biochemistry, and carbon partitioning in plants using proteomic and/or metabolomic approaches. The successful candidates will also have opportunities to investigate plant responses to other biotic/abiotic stressors to elucidate cellular physiology of stress tolerance in plants. The candidate will work with a multi-institutional team in the above research area, and will participate in the activities of Multi-User Analytical Lab (MUAL; https://www.clemson.edu/cafls/mual/), a core facility that the group directs, for the analytical part of their experiments.

The MUAL currently employs mass spectrometry-based metabolomic approaches to elucidate biological systems. With the new hire, we expect to expand the metabolomics capabilities of the lab, especially in the area of plant metabolomics. Alternatively, based on their experience, the candidate can also lead the ongoing efforts of the lab to set up mass spectrometry-based proteomics research. The analytical instruments in the lab include Orbitrap Tribrid Fusion mass spectrometer (with CID, HCD, ETD dissociations and ID-X capabilities) coupled to analytical and nano-ESI & -UHPLC, triple quadrupole mass spectrometers, multiple GC-MS, a full suite of metabolomics and proteomics software from Thermo Scientific etc. We currently have an active Academic Partnership Program with Thermo Scientific that provides the lab direct access to scientists at Thermo for training and other resources through onsite visits etc.

**Requirements:** Candidates should be highly motivated in independently leading cutting-edge research in metabolomics or proteomics, should have Ph.D. in physiology, biochemistry, chemistry, or related disciplines, with a strong background in the application of high-resolution mass spectrometry for metabolomics/proteomic research. In-depth knowledge about biological systems, metabolic workflow and related software, proficiency in a relevant computer language to develop scripts for library creation/searchers, and data processing is preferred. Previous experience in plant sciences is preferred, but is not a prerequisite. Candidates with in MS-based proteomics (profiling, quantitation, PTMs), 13C/15N isotope flux analysis, informatics software, and independent operation of any hybrid orbitrap mass spectrometers will be given preference.

**Salary:** $47,500-$55,000/year; commensurate based on qualifications and experience. Position is renewable up to three years based on satisfactory annual progress.

**Application Instructions:** The position is available immediately. Please submit the following documents in Interfolio (https://apply.interfolio.com/53402) by September 20, 2018. The applications are reviewed as received.

1. Cover letter highlighting interest in the position and relevant qualifications
2. Curriculum vitae
3. Copy of the transcript (unofficial)
4. Copy of relevant publications
5. Name and contact information of three references.

Position related questions may be directed to: Dr. Nishanth Tharayil (ntharay@clemson.edu).