**PhD positions in Cell Signaling and Stress Response**

The Popescu lab in the Department of Biochemistry, Molecular biology, Plant Pathology and Entomology seeks applicants for PhD positions that offers interdisciplinary training in plant genomics, biochemistry, and systems and computational biology.

The PhD students will lead and participate in NSF-funded research exploring the integration of peptidase networks and stress signals, and in the longer term, aiming to reach a predictive understanding of the mechanisms for stress adaptation and tolerance in plants. The project employs the plant Arabidopsis as a model to elucidate the contributions of the proteolytic pathways mediated by TOP1 and TOP2 thimet oligopeptidases through integrated biochemical, proteomics, and systems biology approaches.

**Qualifications:** Bachelor's or Master's degree in genomics, proteomics, molecular biology, plant sciences or a related field.

**Requirements:** Experience with biochemistry and molecular biology techniques applied to plant science; a strong interest in bioinformatics and computational biology; good communication skills and an ability to work as part of a multi-disciplinary team.

How to Apply: Applicants are encouraged to email a one-page cover letter and CV (including skills, previous research/education, GPA, GRE/TOEFL, and the contacts of three references) to scp319@msstate.edu. Please set the email subject line as "[PhD_application] Full name".

**The Popescu lab**

Rapid detection of the surrounding environment is a basic survival skill of all life forms. We study cellular networks that regulate detection of pathogens and environmental stressors. We combine classical and advanced molecular and biochemical approaches to unravel the organization and the general principles of information processing networks in model plants and crops. We generate computational models of signaling pathways to simulate cellular events and predict plant phenotypes.