PhD Student position investigating the role of endoplasmic reticulum stress in regulation of Arabidopsis immune responses.

A PhD student position is available in the Karolina Mukhtar’s lab in the Department of Biology at the University of Alabama at Birmingham, AL, USA http://www.uab.edu/cas/biology/kmukhtar

Inositol-Requiring Enzyme 1 (IRE1) is a highly conserved eukaryotic ER stress sensor. While chronic ER stress is linked with metazoan immune disorders, the role of IRE1 in plant immunity remains elusive. Our laboratory established the first known connection between the IRE1 and its client mRNA for the bZIP60 transcription factor in Arabidopsis immune signaling (Moreno et al. 2012).

The position will start in the spring semester 2017. The successful candidate will be involved in a project addressing the molecular mechanisms of biotic stress-dependent IRE1 activation kinetics under oscillating ER stress conditions using genetic and biochemical approaches, systematic dissection of the IRE1 protein domains in signal perception and transduction, and/or analysis of next-gen seq data to identify novel IRE1 degradation targets. Further duties include assisting in the supervision of undergraduate students, development of appropriate experiments, collection and analysis of data, interpretation of results, formulation of conclusions, and documentation in a final written form.

The successful candidate will be very well organized, dedicated, have excellent written, oral, and interpersonal communications skills and the ability to work both independently and collaboratively with co-workers.

Required qualifications:
-A BS or MS in biology, genetics, molecular biology, plant pathology or the equivalent

Bonus qualifications:
- publication(s) in peer-reviewed journals,
- previous experience with Arabidopsis molecular biology and protein biochemistry techniques,
- experience in plant-microbes interactions
- background in Gateway cloning, generation of transgenics and RNA-seq analyses

For information about the graduate program in the Department of Biology at UAB, and how to apply, please see https://www.uab.edu/cas/biology/graduate-program

For specific information about the position, please contact Dr. Karolina Mukhtar at kmukhtar (at) uab.edu.

The University of Alabama at Birmingham is a major research university in the South-East that is particularly renowned for its programs in biomedical and natural sciences. The urban campus houses over 2,000 faculty and 16,000 staff with a student population exceeding 18,000.

UAB is classified as one of 115 U.S. Highest Research Activity (R1) Universities by the Carnegie Foundation. Birmingham is the largest city in the state of Alabama, with metro population exceeding 1 million, and is
home to high-quality medical facilities, many fine restaurants, a historic theater, a symphony orchestra, an opera, a ballet, and nationally known events such as the Sidewalk Moving Picture Festival. The Birmingham metropolitan area has consistently been rated as one of America’s best places to work and earn a living based on the area's competitive salary rates and relatively low living expenses.

UAB is an Equal Opportunity/Affirmative Action Employer committed to fostering a diverse, equitable and family-friendly environment in which all faculty and staff can excel and achieve work/life balance irrespective of ethnicity, gender, faith, gender identity and expression as well as sexual orientation.