Post-Doctoral Fellowship
Dr. Rita Miller’s Lab
Department of Biochemistry and Molecular Biology
Division of Agricultural Sciences and Natural Resources
Oklahoma State University – Stillwater, Oklahoma

POSITION DESCRIPTION: This position requires the ability to design and execute experiments to study the function of the endoplasmic reticulum in regulating cellular responses to environmental challenges including virus infection, heat, chemical and salt stress. Specifically, the successful candidate will study the ER lumen binding protein BiP and its effect on sensing pathways within plant and yeast cells. These pathways will focus on those used by the bZIP60 family of transcription factors to regulate cellular adaptive responses in potato and tobacco plants. The new postdoc will use molecular biology, genetic, biochemical and cell biological approaches in their research. In doing so, they will identify the molecular basis for new modes of regulation in the endoplasmic reticulum in plants. This project will also use the yeast Saccharomyces cerevisiae and requires the ability to learn yeast cell culture.

A demonstrated interest in plants is a plus. This position requires the ability to think critically and work independently. Excellent communication, documentation, and writing skills are necessary for the maintenance of laboratory notebooks and the preparation of journal manuscripts. The ability to prepare figures in Powerpoint is needed. The ability to learn the graphics programs Adobe Photoshop and Adobe Illustrator will be needed to prepare figures for presentation and manuscripts. The ability to conduct careful live cell microscopy will be considered. Presentation of research findings at lab meetings, journal clubs, and scientific conferences is expected. The appointment will be for 11 months.

QUALIFICATIONS: The position requires a Ph.D./Ed.D. in Life Sciences with experience in Microbiology. Knowledge of molecular biology, basic cell biology, basic knowledge of cell cycle regulation, and an understanding of basic cell stress mechanisms. The ability to lift a minimum of 30 lbs is required and the ability to move about the lab. May be exposed to standard lab chemicals including ethidium bromide, acrylamide, glutaraldehyde, methanol.

Questions should be directed to Melissa Kirk at melissa.kirk@okstate.edu.

The Department of Biochemistry and Molecular Biology administers a nationally recognized program with 300 undergraduate students and 30 M.S. and Ph.D. students. For more information about the department go to: http://biochemistry.okstate.edu/

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