Postdoctoral Position in Epigenetic Regulation of Plant Immunity

University of South Carolina, Columbia, SC, USA

A postdoc position is immediately available in the group of Dr. Zhengqing Fu at the University of South Carolina, Columbia.

Previous work identified the first mono-ADP-ribosyltransferase called HopU1 in plants or plant pathogens (Fu et al., 2007 Nature 447: 284). HopU1, as a type III effector from the plant bacterial pathogen *Pseudomonas syringae*, targets RNA-binding proteins to suppress plant defense. It was reported that NPR3 and NPR4 function as the salicylic acid receptors in plants (Fu et al., 2012 Nature 486: 228). Recently, we discovered that salicylic acid promotes the interaction between NPR1 and the *P. syringae* type III effector HopAB2. HopAB2 mediates the degradation of NPR1 via the 26S proteasome dependent on its E3 ligase activity to subvert plant immunity (Chen et al., Cell Host & Microbe under second revision). In addition, we found that the HEN3/CDK8 kinase module of the mediator complex facilitates phosphorylation and stabilization of NPR1 protein to establish systemic acquired resistance (Chen et al., Molecular Plant under review).

We have identified three groups of epigenetic regulators that play important roles in plant innate immunity. We are seeking to recruit a creative and motivated person to develop these projects further into publications. The incumbent is expected to develop innovative approaches to address fundamental questions related to epigenetic regulation of plant immunity.

Specific duties:
1. Design experiments (20%)
2. Perform molecular and genetic studies related to the projects (60%)
3. Prepare publications, presentations and summaries (20%)

We are part of an interactive plant group of internationally recognized faculty. Columbia is located in the Midlands of South Carolina only two to three hours away from the Appalachian Mountains and the beautiful Atlantic coast line.

The position is available for up to three years, depending on performance.

**Qualifications:**
- A PhD degree in Plant Pathology, Plant Biology, Biochemistry or a closely related field,
- A solid publication record,
- Strong oral and written communications skills, and
- Excellent molecular biology skills and knowledge in molecular plant-pathogen interactions

**How to apply:**
Please send a description of current and past research experience, research interests and future goals, a list of technical expertise, a CV, and e-mail addresses and phone numbers of at least two references to Zhengqing Fu at zfu@mailbox.sc.edu. Lab website: [http://www.biol.sc.edu/faculty/Fu](http://www.biol.sc.edu/faculty/Fu). Applications will be considered immediately until the position is filled.

The University of South Carolina is an Equal Opportunity/Affirmative Action employer.