

A Postdoc Position in Molecular Plant-Pathogen Interactions

University of South Carolina, Columbia, SC, USA

A postdoc position is 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). In a set of projects, we investigate how plant pathogen cause diseases. Recently, we discovered that salicylic acid promotes the interaction between NPR1 and the *P. syringae* type III effector AvrPtoB. AvrPtoB mediates the degradation of NPR1 via the 26S proteasome dependent on its E3 ligase activity to subvert plant immunity (Chen et al., 2017 Cell Host & Microbe 22:777-788). In addition, our projects uncovered important signaling pathways in salicylic acid-mediated plant defense (Chang et al., 2019 Molecular Plant 12:678-688, Chen et al., 2021 Science Advances 7: eabl7173, Qi et al., 2021 Molecular Plant 14:1-16).

Specific duties:

The incumbent is expected to develop innovative approaches to address fundamental questions related to regulation of plant pathogenesis and immunity.

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

Qualifications:

A Ph.D. degree in Plant Pathology, Plant Biology, Biochemistry or a closely related field, A solid publication record, strong oral and written communications skills, 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.

Applications will be considered until the position is filled.

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.

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