Two Postdoctoral Research Positions: salicylic acid signaling in plant-pathogen interactions

University of South Carolina, Columbia, USA

Two postdoc positions are available in the group of Dr. Zhengqing Fu at the University of South Carolina, Columbia. The area is molecular plant-pathogen interactions with a focus on salicylic acid signaling. 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 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).

The research projects focus on two topics: how we can increase our understanding of salicylic acid signaling during plant defense against pathogen infection (Chang et al., Molecular Plant under revision) and how plant pathogens modify salicylic acid pathway to cause diseases (Qi et al., Molecular Plant accepted with minor revision). We are seeking to recruit two creative and motivated persons to fill these positions. The incumbents are expected to develop innovative approaches to address fundamental questions in salicylic acid signaling and/or molecular plant-pathogen interactions.

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 Biology, Plant Pathology, Biochemistry or a closely related field. A solid publication record, strong oral and written communications skills, and excellent molecular biology skills.

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. Please check the Fu lab website at https://fubiolab.weebly.com/ for more details. A complete list of publications can be found at https://scholar.google.com/citations?user=INwqlrQAAAAJ&hl=en&oi=ao. Applications will be considered immediately until the position is filled. The University of South Carolina is an Equal Opportunity/Affirmative Action employer.