

Postdoctoral Researcher – Evolution of downy mildew pathogens

The Quesada Lab at North Carolina State University invites applications for a Postdoctoral Researcher position. The Postdoc will be responsible for performing evolutionary genomics research with downy mildew plant pathogens affecting specialty crops. The project will focus on studying host adaptation in downy mildew pathogens and shifts in pathogen populations that have resulted in failure of control methods such as host resistance and fungicides. Next generation sequencing and multi-locus sequencing will be used for isolate genotyping. Phenotyping assays to characterize pathogen virulence and sensitivity to fungicides will be performed in growth chambers and in the field. The candidate will be responsible for collecting and analyzing data, writing scientific publications, giving oral and poster presentations, and assisting with grant writing and reports. The Postdoc will also assist with activities related to lab management, training and supervision of other lab staff and stakeholders, and field trials.

This position requires a recent PhD degree (within the last 4 years) in plant pathology, plant-microbe interactions, microbiology, or evolution. Self-motivation, independence, good time management skills, and a high level of written and spoken English are required. Experience working with filamentous pathogens in a lab setting, using CLC Genomics workbench or similar packages, R or similar statistical analysis platforms, experience in statistical analysis, demonstrated ability to publish scientific papers, ability to search and read scientific literature pertinent to job, mentor other staff, and developing new research protocols are also required. Experience with population genetics and evolutionary analysis of filamentous plant pathogens, analysis of Illumina and PacBio sequencing data, and coding experience (bash, perl, python) is preferred but not required.

The lab is located on the main campus in Raleigh. NC State's location in the Research Triangle Park provides unique opportunities for interactions with the Ag. Biotech industry, including AgBiome, Novozymes, Bayer Crop Science, BASF, Syngenta, and the North Carolina Biotechnology Center; other major universities, including Duke University and the University of North Carolina at Chapel Hill; local research networking groups such as the North Carolina Microbiome Consortium; NC Department of Agriculture and several federal agencies.

Interested applicants should send a cover letter describing qualifications, a resume or CV with contact information for three references, college transcripts, and a one-page abstract of Ph. D. thesis to Dr. Lina Quesada (lmquesad@ncsu.edu).

The position will be open until filled.