

Postdoc: Spatial and molecular epidemiology of plant pathogens

A postdoctoral research position is available in the [Phylodynamics Research Group](#) led by David Rasmussen at NC State University in the Department of Entomology and Plant Pathology and Bioinformatics Research Centre. This position is part of a USDA NIFA funded project to track the spread of plant pathogens through agricultural landscapes using population genomic data.

The successful candidate will help our team unify recent advances in spatial epidemiology and population genetics to improve phylogeographic methods for plant and other agricultural pathogens. This will include developing new spatial models to track pathogen spread through complex landscapes and that can identify factors promoting transmission. These spatial models will then be coupled with population genetic methods to infer spatial transmission patterns from pathogen genomic data. In collaboration with co-PIs Ignazio Carbone, Peter Ojiambo and Dorith Rotenberg, the candidate will also help us apply these methods to a wide variety of plant pathogens ranging from viruses to fungal and oomycete pathogens. Because many of these pathogens sexually reproduce or recombine, emphasis will be placed on developing methods that allow for recombination.

Applicants must hold a PhD in biology, statistics, computer science or a related scientific field. Previous experience developing high quality scientific software is expected. Experience in geospatial or epidemiological modeling is also highly sought. Candidates with a strong background in both software development and scientific research will be given the highest consideration. As part of the position, the candidate will also be expected to publish and present their work at conferences, teach at workshops and potentially help supervise students.

Initial appointment is for one year, but renewable for up to 3 years. Start date would ideally be in August 2019.

To apply, please send a CV, a 1-2 page cover letter describing previous experience and research interests in relation to this project, and the contact info for two references to drasmus@ncsu.edu. Applications will be considered until the position is filled.

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