



Postdoctoral position in Fungal-Plant-Insect Associations, St. Leger Lab

The St. Leger laboratory, Department of Entomology at The University of Maryland (UMD), invites applications for a Postdoctoral Scholar – Employee position starting when a qualified applicant is found on a USDA/NSF funded project entitled “Determining the properties required for a genetically engineered biocontrol agent to work safely”. The candidate post-doctoral associate will work on a unique experimental system involving a radiating genus of fungi (*Metarhizium* spp) which have rapidly diversifying lifestyles that includes associations with plants and insects. The goal is to ask fundamental questions about invasion ecology (including persistence, propagation, potential horizontal gene transfer and biogeochemical impacts), potential adaptation in the field (e.g., divergence in insect and plant associations), mutational capacity (using genomic sequencing) and transgene stability. The project will provide insights into the genetic and molecular underpinnings determining evolutionary shifts in lifestyles that will be generally applicable to pathogens and hosts. Understanding these shifts is critical, especially in light of environmental change, invasive species and the laboratories work on transgenic approaches to controlling vectors of human disease. A combination of experimental approaches will be used, and there will be many opportunities to develop new projects to explore the evolution of lifestyle shifts.

Position Qualifications: A Ph.D. in entomology, biological control, insect pathology, microbiology, genetics (or related discipline) is required. Experience working with bioinformatics tools is helpful but not required.

Some relevant papers for the project from our group are listed below:

- <https://journals.plos.org/plospathogens/article?id=10.1371/journal.ppat.1006260>
- <https://science.sciencemag.org/content/364/6443/894>
- <https://link.springer.com/article/10.1007%2Fs00253-014-5788-2>

Applicants should submit a CV and a summary of research experience via email to Professor **Raymond J. St. Leger** (stleger@umd.edu). Please highlight in your cover letter your research experience and how your skillset/experience is relevant, and provide the contact information for 3 references. This position is currently open and applications will be accepted until a suitable candidate is identified.

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