



POSTDOCTORAL SCHOLAR

Biology of the oomycete *Phytophthora infestans* Riverside, California, USA

Postdoctoral positions are available in the laboratory of Dr. Howard Judelson at the University of California, Riverside, studying the **Biochemistry, Cell Biology, and Physiology** of the microbe *Phytophthora infestans*, the potato late blight pathogen. These are funded by multi-year grants from the U.S. National Science Foundation and Department of Agriculture-National Institute of Food and Agriculture.

Project One: This aims to understand the effects of polyploidy on the biology of *Phytophthora*. While diploidy is the normal state, polyploids predominate in nature in many species including *P. infestans*. This suggests that polyploidy provides a short-term advantage to the species. This will be tested by comparing the biology of diploids and polyploids, through studies of growth, development, pathogenicity, cell biology, metabolomics, and transcriptomics.

Project Two: This will study the effect of reactive oxygen species on transcription factors bearing cysteine residues. The cysteines are hypothesized to act as redox switches that modulate responses against oxidative stress. The research will integrate studies of protein biochemistry (e.g. DNA-protein and protein-protein interactions), cell biology and metabolite analysis (e.g. assessments of oxidative stress during growth and development), and molecular genetics (e.g. gene editing using CRISPR, transcriptomics).

How to apply: Send via email to howard.judelson@ucr.edu a *Curriculum vitae* (CV), contact information for three references, and a cover letter indicating your research interests and qualifications for the position(s). Please note that to be hired as a Postdoctoral Scholar at UC-Riverside, you may not have worked for more than five years as a postdoctoral in any institution.

Location: The work will take place at the University of California, Riverside, a large research university (27,000 students) in Southern California. Riverside is a medium-sized city (population of 325,000) located about 90 km (55 miles) from Los Angeles. The city has a sunny warm climate and is about one hour's drive from beautiful ocean beaches and a similar distance from snow-capped mountains.

Lab website: oomyceteworld.net