



## **We are hiring a postdoctoral associate to study the molecular basis of plant control over arbuscular mycorrhizal symbiosis.**

***Department of Biology, University of Miami (Coral Gables, FL)***

We are hiring a postdoctoral associate to investigate the molecular signaling mechanisms that govern the interaction of plants with arbuscular mycorrhizal fungi. In the model legume *Medicago truncatula*, we recently identified a number of mycorrhiza-induced, root-expressed mobile peptide hormones (CLE peptides), and found that one of them (CLE53) suppresses further root colonization once a critical threshold is reached ("autoregulation") (Müller et al., *Nature Plants* **5**, 933–939 (2019), <https://doi.org/10.1038/s41477-019-0501-1>). For others, the molecular function is unknown. The Postdoctoral Associate will be elucidating the molecular functions of peptide signaling pathways in beneficial plant-fungus interactions, focusing initially on the molecular mechanism of induction and transduction of CLE signaling. The Postdoctoral Associate will also work on characterizing novel short- and long-distance signals in the context of symbiosis. The ultimate goal of our lab is to identify the molecular mechanisms of plant control over arbuscular mycorrhiza symbiosis, and develop plants (crops) with increased symbiotic capacities. Please refer to [www.plantmycolab.com](http://www.plantmycolab.com) for more details on our research. The Postdoctoral Associate will use plant molecular biology, genetics, biochemistry, transcriptomics, and microscopy to tackle this project. The Postdoctoral Associate will have the opportunity to develop skills in molecular plant-microbe interactions, grant writing, mentoring undergraduate and graduate students, and writing papers.

Candidates must have a PhD in Biology, Plant Biology, or related discipline, and must have research experience in plant molecular biology, biochemistry, and/or genetics. The candidate must have a deep interest in plant-microbe interactions and plant physiology. Other important qualifications are a background in statistical methods, a strong work ethic and strong organizational and time management skills. Other qualifications include problem-solving skills, experience in manuscript writing, a track record of publications, and independent research experience. Experience with legume genetics, molecular plant-microbe interactions, and/or bioinformatics are desirable but not required.

The contract is initially limited to 12 months with a possibility for renewal contingent on funding and satisfactory performance. The start date is flexible, but an ideal candidate would begin as soon as possible.

To apply, please email your application documents (CV, description of research experience and research interests, contact information for 3 references) to Dr. Lena Mueller ([Lena.Mueller@miami.edu](mailto:Lena.Mueller@miami.edu)). Review of applications will begin September 20, 2021.