

Post-doctoral Mentoring Plan – Leebens-Mack

In all of my mentoring functions, I aim to help mentees develop their personal career objectives and provide opportunities and support in helping them make progress in meeting their objectives. Former students and postdocs have pursued diverse career paths and I have enjoyed learning about the broad range of professional opportunities as I have helped mentees gain experiences that have prepared them for success in careers ranging from industry and agency positions to academic jobs. Common themes in my mentoring experiences have been open and clear communication of goals and expectations, empowerment of my mentees with the knowledge base and experience they need to advance their career objectives, and network building. No matter their career aspirations, I feel that the most impactful actions I have taken to help mentees are those that have most directly contributed to them building their own unique professional profile.

Postdoctoral Scholars participating in UGA's **Future Faculty for Inclusive Research Excellence (FFIRE)** program will frame research projects relevant to UGA's strategic research priorities in Data Science, Artificial Intelligence, Integrative Precision Agriculture and Ecosystem Sustainability. For example, there is a great need for innovative comparative and experimental approaches for harnessing the information from a massively increasing pool of plant genome data to promote ecosystem sustainability and expand the diversity of plants utilized for production of food, fiber, timber, renewable energy sources, medicines and other plant-based industrial resources for a growing bioeconomy. AI-enabled investigations of plant genome data would aid identification of genotype-phenotype associations, advance understanding of fundamental ecological, genetic and molecular processes impinging on plant growth and reproduction, and inform strategies for sustainable production of plant-based resources.

Professional Development: Postdoctoral researchers will participate in a customized array of research, mentorship and professional development activities. I meet frequently and regularly with postdocs to frame objectives and maintain focus on how research, project management, mentoring, and networking activities are contributing to realization of their career aspirations. I strive to provide postdocs with many opportunities to cultivate their professional support network through collaborative research activities. Postdocs expand their professional network through meetings and research, teaching, and/or outreach collaborations.

Teaching, Presentation and Networking Opportunities: Postdocs in my have opportunities to present their work in departmental seminars, meetings with my research collaborators, and at the large international society meetings. I also facilitate postdocs' efforts to be invited for seminars at other institutions in order to expand their professional network and elevate their professional profile.

Research Opportunities and Authorship: As is evident in my biosketch and lab website, my lab uses genome data to address a wide range of macro- and micro-evolutionary questions related to ecological, physiological, reproductive, and molecular processes in plants. I work with postdocs (and students) coming into my lab to frame specific projects that encompass their research interests and advance their career goals. We have access to so much data for comparative genomic analyses (e.g. as part of the Open Green Genomes Initiative - <https://phytozome-next.jgi.doe.gov/ogg/>) that we can immediately frame a compelling set of data analyses for publication in a high-stature journal. Cultivating a publication record is an expectation for all careers requiring a PhD, and authorship is especially crucial for those pursuing academic careers. I work with postdocs to frame publication objectives including highly focused work that can be done quickly and more ambitious, comprehensive work that may require more than a year for data collection, analysis, and writing. I encourage lab journal clubs that can facilitate explorations into the literature and framing of new research objectives. Moreover, deliberate scheduling of writing time, and active back-and-forth refinement of manuscript drafts are also strongly encouraged. Once a manuscript is ready for outside assessment, targeted expert feedback can be helpful as well as posting preprints in appropriate on-line archives.