**Postdoctoral Research Associate –** Adapting perennial crops for climate change: Graft transmissible effects of rootstocks on grapevine shoots.

The Miller Lab Group, a joint faculty partnership between the Donald Danforth Plant Science Center and Saint Louis University, is seeking applicants for a postdoctoral research associate to join our dynamic team investigating how grapevine rootstocks derived from native North American *Vitis* species modulate shoot system phenotypes in grafted grapevines. Funded by the National Science Foundation Plant Genome Research Program, the project is entitled “Adapting perennial crops for climate change: Graft transmissible effects of rootstocks on grapevine shoots” and is currently in the third year of a five year award ([www.vitisunderground.org](http://www.vitisunderground.org); twitter: @vitisroots). This project is a collaborative effort between researchers at the Danforth Plant Science Center, Michigan State University, Missouri State University, Saint Louis University, South Dakota State University, Ohio State University, University of Missouri, United States Department of Agriculture – Agricultural Research Service, and an industry partner. The position will be based at the Danforth Plant Science Center in St. Louis, MO.

**Duties of the postdoctoral research associate** include 75% research and 25% administration as the project manager. The research component of the position will focus on analyzing and integrating diverse and large data sets to understand how rootstock genotype and environment interact to influence shoot system phenotype. We have collected comprehensive scion phenotype data at three phenological stages over the course of three years in an experimental vineyard in southwestern Missouri. The last field collection date for this aim is September 2019. Data collected include leaf shape, leaf ion concentrations, physiology measurements, and gene expression in reproductive and vegetative tissues, among others. Working closely with project team members, the postdoc will lead efforts to analyze and integrate data sets, using approaches such as mixed effect linear models incorporating rootstock genotype, irrigation, time, tissue, and interaction terms, among others. The postdoc will be tasked with leading manuscript preparation describing these data. In addition, the postdoc may contribute to data collection and analysis for other project aims, including root-shoot combinations distributed in commercial vineyards in California, and in a rootstock mapping population that was planted in Columbia, MO and elsewhere in Spring 2019. Finally, the postdoctoral research associate will have the opportunity for training in the grapevine industry through our industry partner and will be expected to contribute to the development of outreach and educational programming at two major botanical gardens. The administration component of the job involves scheduling and participating in monthly and annual PI meetings, and compiling annual project reports, among other duties.

**The successful candidate will have 1)** expertise and a proven track record in one or more of the following areas: agronomy, botany, computational biology, plant evolutionary biology, genomics, physiology, statistics, transcriptomics, viticulture, and a strong desire to learn areas with which they are less familiar; **2)** PhD in a field related to one or more of the research areas listed above (required by the starting date of employment); **3)** strong interest in crop improvement and perennial agriculture, **4)** outstanding organizational skills, strong work ethic, positive attitude, and a team player who gets along well with others. **The anticipated start date for this position is September 1, 2019 but later start dates may be considered.**

**All applications must be made online** at <http://jobs.slu.edu>. Please send a cover letter describing research interests, experience, and qualifications, Curriculum Vitae, and contact information for three references to Dr. Allison Miller (allison.j.miller@slu.edu). Review of applications will begin immediately and continue until the position is filled.

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