

Organization: University of Florida, Agronomy Department, Plant Molecular and Cellular Biology Program

Position: Postdoc, Metabolic Engineering for Crop Improvement

Location: Gainesville, FL 32611, United States

Description: The Crop Biotechnology Research Program at University of Florida, headed by Fredy Altpeter (<http://agronomy.ifas.ufl.edu/faculty/fredy-altpeter/>) is seeking a highly motivated postdoctoral research associate with experience in plant genetic engineering, molecular biology and project management to join our team. The research program focuses on designing biomass crops for enhanced productivity and production of value added products using the “plants as factories” concept in collaboration with the recently **funded U.S. Department of Energy’s Bioenergy Research Center** <https://cabbi.bio/research/feedstocks-theme/>

The successful candidate will apply established transformation and CRISPR-Cas9 protocols to validate targets for crop improvement and develop multiplex genome editing and transgenic strategies for metabolic engineering. Characterization of genetically modified events under controlled environment and field conditions will allow to select best performing events similar in scope to our earlier publications:

<https://onlinelibrary.wiley.com/doi/10.1111/gcbb.12684>; <http://onlinelibrary.wiley.com/doi/10.1111/pbi.12411/epdf>;
<http://onlinelibrary.wiley.com/doi/10.1111/pbi.12833/full>

Experience: Extensive background in molecular genetics is essential, including design and construction of multi-gene vectors using modular cloning platforms like Golden Gate assembly, analysis of RNAseq data, plant tissue culture, biolistic gene transfer, molecular and phenotypic characterization of transgenic plants under greenhouse and field environments and statistical analysis of data. Knowledge in plant metabolism, physiology and genomic regulation is desirable. This work requires excellent interpersonal and communication skills in English as well as excellent writing skills as demonstrated by a strong publication record in peer reviewed journals. Recent graduates are encouraged to apply.

How to apply: Please email your resume, cover letter, and contact information of 3 references as well as US-visa history (what type of visa and when received) to the PI at altpeter@ufl.edu. University of Florida is an equal opportunity and affirmative action employer. All qualified applicants will receive consideration for employment without regard to race, color, national origin, religion, sex, gender identity, age, sexual orientation, genetic information, status as an individual with a disability, or status as a protected veteran.

Annual Salary: \$ 47,500 plus benefits.

Initial deadline for application: Application review will immediately and will continue until a suitable candidate is identified.

Selected publications related to this position:

- Parajuli, S., Kannan, B., Karan, R., Sanahuja, G., Liu, H., Garcia-Ruiz, E., Kumar, D., Singh, V., Zhao, H., Long, S., Shanklin, J., Altpeter, F. 2020 (in press). Towards oilcane: Engineering hyperaccumulation of triacylglycerol into sugarcane stems. *Global Change Biology – Bioenergy* <https://onlinelibrary.wiley.com/doi/epdf/10.1111/gcbb.12684>
- Kannan, B., Jung, J.H., Moxley, G. W., Lee, S.-M. Altpeter, F. 2018. TALEN mediated targeted mutagenesis of more than 100 *COMT* copies/alleles in highly polyploid sugarcane improves saccharification efficiency without compromising biomass yield. *Plant Biotechnol. J.* 16: 856–866. <http://onlinelibrary.wiley.com/doi/10.1111/pbi.12833/full>
- Altpeter F. et al. 2016. Advancing Crop Transformation in the Era of Genome Editing. *Plant Cell.* 28: 1510-1520. <http://www.plantcell.org/content/early/2016/06/22/tpc.16.00196.full.pdf+html>
- Zale, J., J.H. Jung, J.Y. Kim, B. Patha, R. Karan, H. Liu, X. Chen, H. Wu, J. Candreva, Z. Zhai, J. Shanklin, F. Altpeter. 2016. Metabolic engineering of sugarcane to accumulate energy-dense triacylglycerols in vegetative biomass. *Plant Biotechnol. J.* 14: 661-669. <http://onlinelibrary.wiley.com/doi/10.1111/pbi.12411/epdf>.