

How are yeast metabolic functions genetically encoded? How can they be manipulated for sustainable human benefit?

The Great Lakes Bioenergy Research Center (GLBRC, https://www.glbrc.org/) at the University of Wisconsin-Madison is seeking to train a postdoctoral researcher interested in applying metabolic engineering, multi-omic, and synthetic biology approaches to improving cellulosic biofuel production in yeast. The postdoc will be comentored by two GLBRC researchers, Professor Chris Todd Hittinger and Dr. Trey K. Sato, to increase the conversion of glucose and xylose, the two most prevalent sugars in plant biomass, into isobutanol by Saccharomyces cerevisiae. Postdoctoral projects will include a mix of independent and collaborative research with a team of other GLBRC scientists. The postdoc will have access to the Center's vast knowledge, equipment, and resources for adaptive laboratory evolution, genome sequencing, CRISPR/Cas9 engineering, strain libraries, industrially-relevant lignocellulosic hydrolysates, and metabolomic tools to address a vital 21st century problem: meeting the World's need for economically viable and environmentally sustainable biofuels and bioproducts.

Postdoc candidates should have their PhD (by the start date) with a strong background in molecular genetics, microbiology, metabolic engineering, and/or synthetic biology. Experience in analyzing Illumina sequencing data, bioinformatics, machine learning, and CRISPR/Cas9 genome engineering are highly desirable. Please send a CV, any manuscript p/reprints, and contact information for 3 references to cthittinger@wisc.edu and tksato@glbrc.wisc.edu. Specifically mention why you are interested in this position in your email. Apply by 15 December 2023 for full consideration, but candidates will be considered on a rolling basis. Start date is negotiable, but sooner is better.