Postdoctoral Position Available in Yeast Biodiversity and Synthetic Biology

Shake the tree of life to find sustainable solutions to our energy needs!

How did *Saccharomyces* become expert fermenters?

Why do most yeasts only ferment specific sugars?

How can we best exploit novel metabolic capabilities from fungi and other microbes?

Modern DNA sequencing and synthesis allow us to read and write from genomes at a breathtaking pace. Microbial genomes, from archaea to bacteria to fungi, encode novel and especially useful functions. You can be the first to mine and test genes from the Y1000+ Project (http://www.y1000plus.org), an ambitious project to sequence and analyze the genomes of all ~1000 known species of yeast from the subphylum Saccharomycotina. Yeasts are more genetically diverse than vertebrates and have evolved myriad energy management strategies to store surplus carbon as fuels, such as ethanol and oils. They compete vigorously for nutrients in every continent and biome, but most species are minimally characterized. These fungi and other decay specialists may possess the genes needed to engineer microbes to tolerate stressful industrial conditions and to convert diverse energy crop feedstocks into advanced biofuels.

The ideal postdoctoral applicant will be highly motivated to develop an independent research project in the Hittinger Lab and work as a team within the Great Lakes Bioenergy Research Center, a Department of Energy-funded research center that seeks to understand and overcome the challenges of advanced cellulosic biofuel production. The candidate should have a strong background in molecular genetics, molecular evolution, metabolic engineering, biodesign, or synthetic biology; experimental expertise in molecular genetic techniques is required. Experience in analyzing Illumina sequence data, phylogenetic inference, and computer programming are highly desirable. Please send a CV, manuscript preprints, and contact information for 2 references to cthittinger@wisc.edu. Specifically mention why you are interested in this position in your email. Apply by 14th February 2016 to receive full consideration.

Chris Todd Hittinger Lab
University of Wisconsin-Madison

Laboratory of Genetics, DOE Great Lakes Bioenergy Research Center, Wisconsin Energy Institute, Genome Center of Wisconsin, J. F. Crow Institute for the Study of Evolution

The Hittinger Lab (http://hittinger.genetics.wisc.edu) is located in the oldest genetics department in the country on the vibrant UW-Madison campus (above right), which is a major hub for research in biotechnology, biochemistry, microbiology, systems biology, genomics, and evolutionary biology.

Legal: The University of Wisconsin-Madison is an Affirmative Action/Equal Opportunity Employer. This is a postdoctoral training opportunity, which does not require a UW PVL#.