



Postdoctoral Positions Available in Yeast Evolutionary and Synthetic Biology

How can we best exploit novel metabolic capabilities from fungi and other microbes?
How can we engineer yeasts for the production of advanced biofuels and bioproducts?

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

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 among the first to mine and test genes from the Y1000+ Project (<http://www.y1000plus.org>), an ambitious project that is sequencing and analyzing the genomes of all ~1000 known species from the budding yeast subphylum Saccharomycotina. Yeasts are more genetically diverse than vertebrates and have evolved myriad energy management strategies to store surplus carbon as fuels, such as alcohols, esters, 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, produce novel fermented beverages, and to convert diverse energy crops 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, phylogenetics, evolutionary genomics, bioinformatics, microbiology, metabolic engineering, and/or synthetic biology. Experience in metabolic engineering or synthetic biology are particularly desirable.

Please send a CV, manuscript p/reprints, and contact information for 2 references to chittinger@wisc.edu. Specifically mention why you are interested in this position in your email. Apply by 31st October 2019 for full consideration. Start date is negotiable, but preferred for early 2020.

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

The Hittinger Lab (<http://hittinger.genetics.wisc.edu>, [@HittingerLab](https://twitter.com/HittingerLab)) belongs to the oldest genetics department in the country and is located on the vibrant UW-Madison campus (above right), which is a major hub for research in biotechnology, microbiology, genomics, synthetic biology, metabolic engineering, 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#.