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Functional genomics of algal lipid accumulation Stanford, CA

A postdoctoral position is available in the lab of Dr. Martin Jonikas at the Carnegie Institution for Science, Department of Plant Biology in Stanford, CA.

The high photosynthetic efficiencies and high lipid contents of green algae make them an attractive potential platform for direct photosynthetic production of biofuels and valuable lipids. The unicellular green alga *Chlamydomonas* is a powerful model system for algal production of biofuels, and more generally for plant metabolism. Under stress conditions, *Chlamydomonas* accumulates neutral lipids as triacylglycerols.

This project aims to comprehensively identify genes required for algal lipid accumulation, by applying transformative high-throughput genetics approaches. The project leverages cutting-edge *Chlamydomonas* genetics resources under development in our lab, including the first genome-wide collection of random insertion mutants with known insertion sites in a green alga.

Much of the proof-of-concept work for the screen has already been performed; and we have exciting preliminary data suggesting that the approach will work. The project would involve performing the screen, analyzing the data, and further characterizing hits of your choosing.

I am dedicated to providing my lab members with a nurturing training environment. The data we collect will build a solid foundation on which you can develop an independent research program.

We are physically located on Stanford campus and have access to many of its resources in addition to our own. Moreover, Stanford's excellent location and year-round sunny and warm climate offers a pleasant setting for work and home life.

The ideal applicant will be highly motivated, have a PhD degree, a strong academic record, research experience in the biological sciences, and fluent English language skills. One or more of the following is a plus: experience with *Chlamydomonas*, lipid metabolism, flow cytometry, genomics, computational data analysis.

To apply, please submit a cover letter, CV and three letters of recommendations to:

<https://jobs.carnegiescience.edu/jobs/postdoctoral-fellow/>

Informal inquiries are also welcome: email jonikas1@stanford.edu.

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