



# Sean Hackett

**Graduate Institution:** Princeton University

**Graduate Discipline:** Quantitative and Computational Biology

**Hometown:** Ithaca, NY

**Relevant SC Research:** Biological and Environmental Research

## Research Interest:

The primary research question that I want to answer is: how does genetic and environmental variation shape metabolism. To understand how environmental variation shapes metabolism, I have been looking across different nutritional conditions in yeast and studying how they control metabolic flux to grow efficiently. From this point I want to integrate genetic variation using strategies based on competitive growth in order to find genetic variants that alter a strains distribution of flux.

## About Me:

I received my BS in genetics from Cornell in 2006, where my thesis was on the genetic basis of cardiac arrhythmias in German shepherd dogs. After graduating, I spent several years working on another quantitative genetics research project aimed at understanding the genetic basis of variation in metabolic traits, such as adiposity and enzyme Vmaxs within and between populations of fruit flies. My ongoing research on this project has focused on trying to integrate multiple data types through systems biology to

better model each strains physiology and metabolism, so that systems-level traits can be used for genetic association analysis.

In 2010, I followed my interest in systems biology to Princeton, where I just received my MA and am finishing up my second year.

In my down time, I like practicing martial arts, mostly Brazillian Jiu-Jitsu (I'm the president of the Princeton club), as well as boxing. I also love playing sports such as squash, softball and soccer.



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