Sacks Research Group

Area of Research

1) Identifying key components and processes responsible for quality traits in foods and beverages using GC-MS, LC-MS and related approaches, with a particular focus on wines and grapes.
2) Developing chromatography-free approaches to volatile analysis to facilitate high-throughput
3) Developing novel methods for “volatile mass spectral imaging” – creating 2-D images of the volatile distribution of trace volatiles in

For more information, please visit my website: http://blogs.cornell.edu/winechemistry/

Type of student we are looking for

Foremost, I am looking for students who will actively create a better lab environment. I expect my students to foster each other’s success. Academically, I am looking for students with extensive research experience in chemistry and related fields, and demonstrated excellence in advanced chemistry courses. Hands-on experience in instrumental analysis and design and knowledge of programming languages (e.g. R, LabVIEW, Python) are also valuable.

Mentoring philosophy

My job as a mentor is to facilitate your success as a scientist, both at Cornell and beyond. In practice, this usually consists of weekly meetings to discuss your current research or other activities; challenges you are facing; and short- or long-term plans. I expect my students to have a broad understanding of their discipline, and encourage participation in 1-2 national or international conferences per year. I also believe that mentoring others is the best way to grow as a scientist, and encourage my lab members to take on junior students to mentor.

Lab environment

Our research group typically consists of 4-5 grad students, 1-2 postdocs or visiting scientists, and 2-4 undergraduates. Because we have a large amount of instrumentation in lab, and because we don’t rely on service contracts, responsibility for instrument training and maintenance is on individual lab members. Thus, although individual group members’ projects are largely independent of each other, there is a strong sense of comradery and support created by the shared ownership of lab responsibilities.