Dear potential lab members,

We occasionally have openings for talented undergraduate and post-baccalaureate student researchers in my laboratory. Sometimes these openings turn into paid student assistant positions. This is an exciting opportunity for students wishing to get a taste of real organic/medicinal chemistry research in an active laboratory doing federally-funded research, often as a precursor to graduate school. As quite a few people express interest, and we have limited lab space and fume hoods, we are required to be somewhat selective in students we consider.

**Why else must we be selective?**

a) Organic chemistry research requires a demonstrated understanding of organic chemistry principles (structure of organic compounds, mechanisms, reactions, analytical methods like NMR, HPLC, LCMS, etc).

b) Organic lab research requires at least a cursory starting knowledge of key organic lab techniques: TLC, chromatography, distillation, NMR spectra interpretation, following reactions, etc.

c) Good science requires good communication skills and the ability to think logically.

d) With the very little space we have available, we need to ensure students we accept are a good fit to the goals of the research lab and have sufficient commitment to performing research.

e) *More than anything:* training students takes tremendous time for everyone involved.

**Our current minimum requirements for incoming organic chemistry research students:**

a) Having taken all of the core organic lecture and lab courses: Chem233, 234, 335, and 336

b) Ideally, but not mandatory: having taken at least one or more advanced chemistry elective course: 400 or above. The advanced organic chemistry courses (Chem433) or graduate courses would be nice.

c) Reasonable grades in the science/chemistry lab and lecture courses (*B or greater, with some flexibility*).

d) A reason for wanting to do research that is compatible with your career goals

e) Our lab is highly dependent on computers. You should be comfortable with MS Word, Excel, etc.

f) Enrollment in Chem699 (undergrads) or Chem897 (grad students) the entire time you are in the lab.

**Application procedure:** Write a one-two page document that addresses the ideas below. The format isn’t important, but the content is.

a) What is your major? Chem/Biochem majors receive a slight priority over non-Chemistry majors. Also include your the relevant science courses have you taken, which grades you received. (If not at SFSU, tell where you took them). This information can be listed or tabulated. Which relevant courses do you plan to take?

b) Briefly mention your current and upcoming schedule and tentative times you would be available to do research. At very least: how many days a week, and a rough number of hours per week. Also mention other major commitments (internships and work). These are not frowned upon, but being overwhelmed with other obligations is an indicator that students will not be productive in the lab.

c) When are you graduating or leaving SFSU? To make a reasonable contribution to a research project, we typically require a 1-2 year commitment.

d) Why do you want to perform research? What is the next step in your career path? How will performing research integrate or help you with your next step? If you intend to get an advanced degree, what sort of degree do you want? Also: If you are coming in with research funding, please mention this. (One paragraph is sufficient for this section)

e) We are an organic chemistry research laboratory. So please name your favorite organic chemical reaction. Name your favorite organic chemistry lab technique. Include a sentence or two as to why.

f) Lastly: submit *one example* of a writing assignment that you feel demonstrates your writing abilities (it should be science related, like a lab report that you feel happy with). It should be 4 or more pages.

→ Please submit the packet by email in doc or pdf format to marc anderson: marc (at) sfsu.edu

There is no deadline, applications are considered throughout the year. If the lab is full, and a position opens up, we may ask you to update your application at a later time.