Maura Vrabel
Graduation Year: Junior
College: Engineering
Major(s): Chemical Engineering
Minors(s): Bioengineering
Scholar Group Membership: MSPS

Did you received other funding for this project?: Career Center ($500)
Could you have completed this project without CUSE funding? Yes
More details on CUSE funding assistance? I was determined to do this internship and so I would have exhausted all avenues of funding, including my own savings, in order to finance the experience.

Project Title: Unpaid Internship at AVM Biotechnology
Project Location: AVM Biotechnology Seattle, WA USA
ND Faculty Mentor: Basar Bilgicer
Project Type: Research, Internship

Why did you undertake this project/experience? Deepen your knowledge of a topic or issue, Prepare for graduate school (MA or PhD), Prepare for national fellowships, Career discernment and/or preparation

Did your funded experience help you:
[Deepen your understanding of your coursework or field of study]: Yes
[Discern your interests and post-bac goals]: Very Much
[Become confident in your ability to set and achieve your goals]: Very Much
[Gain a more nuanced view of local, national, or global communities]: Very Much
[Improve your written and verbal communications skills]:Very Much

Tell us about your experience.
My primary responsibility was to perform assays using the flow cytometer, which is a device that can detect the number and types of cells in a given sample. I maintained the flow cytometer and antibody inventory. Secondary responsibilities included aiding in mouse husbandry, sacrifice, flushing of bone marrow and mononuclear cell isolation. I learned the techniques used for lysing blood in preparation for data acquisition on the flow and the intricate methods of data analysis.

Describe the impact this project had, both on you as a student-scholar and on the people you worked with.
Previously, though I had experience in a research lab, I hadn't worked on large, multi-person experiments. The internship taught me the importance of communication, persistence, and accuracy when working on a project with multiple people. I gained a more complete and in-depth understanding of the regenerative medicine field. I have a thorough and highly proficient understanding of flow cytometry now, something that is standard in all research labs.
As for my co-workers, since our lab team consisted of only four people, I helped tremendously

as an extra hand during big experiments and another mind to contribute to problem-solving the many road blocks that arose. I was consistent in and dedicated to my work, while not taking myself too seriously, which created a positive, friendly atmosphere for everyone. I cannot express enough how grateful I am to all of my co-workers who have become my friends through this experience.

Describe how this experience is connected to your plans as a student or future professional.
I plan to get a doctorate in Bioengineering and then work in the pharmaceutical industry as a research investigator/director. This experience has really shown me how the industry operates from an insider perspective - from lab bench to store shelves. I understand now, how broad and how much potential there is in regenerative medicine. It is now a focus for my graduate studies.

What advice would you give other students who are planning to pursue similar projects?
Make sure you know what you're getting into. Small companies are a great place to learn a lot in a few months; but, they are also much more personal and demanding as people are working (and in my case living) closely together. If you can find housing separate from your coworkers and/or boss, then take that opportunity because mixing business and personal lives is often tricky and can be stressful. Definitely explore the area where you live and work! From my adventures, I found that I really loved Seattle and Washington State itself despite the sometimes demanding work. If you're up for the challenge, and want an excellent resume and connections builder, then I would recommend interning at a small start-up company.