## **Audra Amasino**



High School: Madison West

Projects that you worked on with SMART Teams: Cytochrome p450, cyclooxygenase, kinesin and myosin, penicillin and streptomycin. Our mentors were Basudeb Bhattacharya and Dave Nelson, and Gary Graper (for the first 2 years)

College: University of Wisconsin- Madison

Major: Biochemistry

**Current Career plans:** Eventually I would like to get a PhD in Biochemistry and run a research lab.

Impact SMART Team had on you: SMART team was the biggest factor in my choosing biochemistry as a major because I would like to know how life works at an atomic level and learning how proteins work in SMART team was the first time I was introduced to thinking at such a fundamental level. The physical models of the proteins were integral to my understanding of protein structure and folding and how proteins work; how the active site is generally a quite small portion of the protein, but the bulk of the protein is necessary to position and stabilize the active site. Even the rigidity of the models, which meant that sometimes the active site was blocked, highlighted how, in nature, a protein must be able to "breathe" to function. SMART team also helped me build leadership skills because I first joined SMART team my freshman year of high school so by the time I was a junior I could teach new members and help direct meetings. It also helped me become more comfortable with public speaking, and also with coherently explaining science. The poster sessions were very helpful, because sometimes people would ask unexpected questions. The specific projects I worked on were, of course, extremely useful in their own right because now I know, for example, precisely what is happening when I take ibuprofen vs aspirin.

**Favorite memory of being on a SMART Team:** For our final presentation in my senior year, we acted out a murder mystery to explain how penicillin and streptomycin kill bacteria. I was the detective and with my stereotypical "bumbling assistant", we interviewed witnesses and analyzed clues to figure out which antibiotic had killed the bacterium; it was a really fun presentation to give!