Sharon Pepenella Graduate Women in Science Travel Award Report- Spring 2011 Graduate Student, Jeffrey Hayes Lab

The support I received from the Graduate Women in Science (GWIS) travel grant allowed me to attend the 30th Annual Summer Symposium in Molecular Biology at Penn State University. This year, the conference focused on Chromatin and Epigenetic Regulation of Transcription, a topic that directly relates to my research on specific protein interactions during chromatin folding, and is a field of particular interest to my lab. This conference gave me the opportunity to present a poster and welcome discussion on my research not only with other scientists, but also with the pioneers and leaders in my field of study.

The four day Penn State conference is one of the largest held for chromatin and epigenetic research. This symposium was divided into clustered topics including genomics, nuclear organization, chromatin remodeling, and epigenetics, with daily sessions comprising of talks and subsequent discussion by prominent invited speakers. From these talks, I developed a broader understanding of the cutting edge research in the field, and learned about techniques that I could apply to my own research. I even discovered that some of the novel data being presented supported my working hypothesis! A few of the talks I found to be particularly interesting were given by Blaine Bartholomew, who discussed novel research regarding chromatin remodeling, and by Jerry Workman, who challenged the long accepted "histone code" hypothesis. In addition, I sat in on a talk by Jonathan Widom, an enthusiastic scientist and friend of the lab, who is well known for his development of an important synthetic DNA sequence crucial to chromatin research in numerous labs. Sadly, soon after I returned from the conference, Dr. Widom passed away unexpectedly. I am very grateful to have had the opportunity to listen to him present his research.

The conference hosted a speaker-student lunch along with other social activities, which encouraged interaction between the graduate students and the invited researchers. I am appreciative to have been given this opportunity to develop networking prospects, especially for post doc considerations. In addition, I was able to meet and speak with researchers who were now PI's for previous members of the Hayes lab. These were colleagues who had either left for graduate school or took postdoctoral positions after defending. It was enjoyable to hear about the new projects my former lab mates were working on, and in return the PI's were very interested in hearing about the developments in the ongoing research in our lab.

At the poster session, I discussed my data on "the intra- and inter- nucleosomal interactions of the histone H4 tail during chromatin folding," alongside over 100 undergraduates, graduate students and postdoc presenters. This was probably the most exciting part of the conference for me, because we had the chance to converse with other students and researchers about our research in a fun and social environment. I feel this type of interaction is crucial in a graduate student's career; it reaffirms the global importance of your data and thesis project, and it is also personally fulfilling to have people excited about the science you're doing. In addition, I was given valuable feedback and suggestions for future experiments. I developed a collaboration with a lab from Penn State that has the equipment and ability to perform analytical ultracentrifugation on chromatin, a technique that I have wanted to use with my own experiments.

This conference was a wonderful opportunity and gave me the chance to meet the scientists whose papers I have long studied in great detail. I am extremely thankful to GWIS for funding my trip, as well as the conference organizers and my advisor Dr. Jeffrey Hayes for his continued support.