

VOICES OF EXPERIENCE

In this issue, four students who participated in the Undergraduate Poster Session at the 242nd ACS National Meeting in Denver, CO, offer tips on presenting a poster at a scientific meeting.

COMPILED BY LORI BETSOCK



Casey Rogers

Institution: James Madison University

Graduation Year: 2012

Major: Chemistry

Poster Topic: "Chemical Demonstrations: Developing an Infrastructure for Outreach"

Plans after Graduation: I hope to obtain a Master of Arts in Teaching in 2013 and teach high school.

Gabriela Alvarez

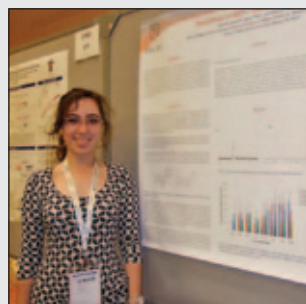
Institution: Emory University

Graduation Year: 2013

Majors: Anthropology and Human Biology

Poster Topic: "Synthesis and Characterization of 4- and 4'-Substituted Chalcones and Their Corresponding Diaryl-isoxazoles"

Plans after Graduation: After graduation I plan to attend medical school and pursue an M.D.



Thomas Gately

Institution: Colorado School of Mines

Graduation Year: 2013

Majors: Chemistry and Engineering Physics

Poster Topic: "Analysis of Rare Earth Elements in a Sodium Peroxide Fusion Matrix Using ICP-AES"

Plans after Graduation: I am in the Air Force ROTC program and will go on active duty once I graduate. I do not yet know what my position will be, but I hope to go into research and development.

Niger Washington

Institution: Pomona College

Graduation Year: 2012

Majors: Chemistry and Mathematics

Poster Topic: "Spin-Orbit States for the $HBr^+ + CO_2 \rightarrow Br + HOCO^+$ Reaction"

Plans after Graduation: I am currently applying for jobs and graduate programs in the chemical engineering field, but I have a preference for attending graduate school. I will have to evaluate my options carefully over the next several months.



How did you prepare for your poster presentation?

Rogers: I did a poster presentation at our university's Spring Symposium, and before that, I gave one at a local chapter session. Also, my advisor requires us to give project updates to our group members at meetings so that we become more comfortable talking about our research.

Alvarez: I made sure I understood everything on my poster — the introduction, how I collected the data, how to interpret the graphs, the equipment used, etc. Sometimes when we work on a project, we don't understand how the raw data was manipulated to be presented in graph form, or why certain steps were added in the procedure.

Gately: I ran through my presentation several times by myself and in front of other people, and got feedback from them. The most help-

ful feedback I got was the questions from people who had presented posters before.

Washington: Before the presentation, I went through the poster several times to practice what I was going to say, by myself in front of a mirror. That way I could choose the best way to phrase something, and the best order to present the information in. This was important because if I made mistakes the first time through, I could be sure to fix them for the next time.

What was it like to present a poster at an ACS national meeting?

Rogers: It was very relaxed. I didn't think it was any different or more intimidating than presenting at a local chapter session.

Alvarez: Before I got there, it seemed like it

would be really daunting, but once it started it felt more like a normal poster session.

Occasionally you'll encounter a person who might ask tough questions, but in general, the ACS members understand that as undergraduates, we may not have the experience or knowledge that would be expected of a graduate student or a postdoc, and they're very friendly and supportive.

Gately: I met some cool people in the chemistry field, and got feedback on the work I've done. At the meeting, there were a lot of helpful Undergraduate Program activities and presentations that were going on outside of the poster session too, so it was a busy meeting.

Washington: Having an opportunity to present my work was a very rewarding experience. What really gets me excited about poster presentations is that I get to share my knowledge with other chemists (students and

professors alike) who are just as excited about chemistry as I am. Presenting a poster is also a great networking experience.

What advice do you have for undergraduate students who are presenting their poster for the first time?

Rogers: Relax. Presenting a poster is not nearly as nerve-racking as an oral presentation. Most interactions are with a few people at a time and it's more conversational in style than when you are standing before a group presenting.

Alvarez: Make sure you know your project well. Being nervous while speaking happens to everybody, but as long as you know what you are presenting, you can communicate it well to someone who may not have all of the knowledge. There's nothing to worry about — it's the science that's the most important thing.

Gately: Practice and relax. You've worked on this project for a long time and know your stuff. Practice makes perfect.

Washington: Making your first poster can be a bit intimidating. Your research advisor will be a crucial resource if you are preparing a poster for the first time. Be sure to get an early start so that you can have plenty of time to revise, reformat, add proper citations, etc., and also to allow for any unanticipated problems (for example, in printing the poster). Also, don't be discouraged if not many people are stopping by your poster. There will be hundreds of other undergraduates presenting at the same session as well, who are all trying to showcase their own work at the same time you are. Some spectators will come to see certain posters, while others will walk through the aisles and take a glance at many. With that said, don't be afraid to encourage a passerby to listen to your presentation.

In addition, you won't be able to convey every aspect of your project on your poster, so it is best to start early in order to give yourself time to narrow down the aspects of your project that will be most relevant to the audience. It's important to know that many students will not know the theory behind your project, so as trivial as it may seem, explaining the background information is crucial.

Were you nervous? If so, how did you deal with it?

Rogers: I wasn't nervous. I had done this before, and as I said earlier, this is much more relaxed than giving an oral presentation. It really isn't anything to be nervous about as long as you can explain what you did in your research.

Alvarez: I think just about everybody gets nervous when they have to speak in front of others. Even now, I still shake a little bit and my voice falters speaking in public, even though I know in my head that there is nothing to worry about. Definitely preparing and knowing how you are going to present helps a lot. When you really know the material, sometimes the words just come out naturally and automatically; you don't have to worry

about getting stuck or missing something. Also, if you are a person who gets nervous, it's perfectly fine to say to yourself, "I may not be the best speaker, and that's okay," which is what I do. No one is good at everything, but just trying your best is more than enough.

Gately: I was very nervous. This was my first poster, and it was at the ACS national meeting. The most helpful thing I did was practice beforehand, but it took a couple of people asking me questions to get into the groove of presenting.

Washington: I was a bit nervous because I wasn't sure how I was going to convey the information on my poster to people in a coherent manner. Also, I did have a bit of anxiety with regards to answering questions, because I couldn't anticipate everything that was going to be asked (and I, of course, wanted to be able to correctly answer them all). Some questions can catch you off guard, but it's okay if you don't know all the answers. It's better to be truthful than to give misleading information. If you approach the poster presentation as a learning experience, then you will be much more receptive to handling constructive feedback.

How did you benefit from the experience?

Rogers: It taught me how to give a short recap of my research in less than a minute. For scientists, this skill is particularly useful when networking with other scientists or in writing abstracts.

Alvarez: I saw several different ways in which scientists can organize and present their research. And of course, I benefited from learning how to present my poster and handle sometimes-difficult questions.

Gately: I received feedback about my presenting skills, learned what many of my peers were doing, and saw some interesting presentations of work and research going on in other fields of chemistry.

What is the one thing you will do differently the next time you present a poster?

Rogers: I plan to figure out what I'm going to say when someone asks me what I did as my research. I was able to come up with an answer fairly easily, but as the session went on, my answer got much better refined. It would have been better to have that refined answer from the beginning of the poster session.

Alvarez: It all depends on the sort of project I will be presenting. I know I can work on organizing my thoughts a bit better and explaining what the data represent before diving into the results. Sometimes when you know a project so well, it's easy to forget that others are looking at it for the first time.

Gately: I will make sure to check my figures before the final printing of my poster. I made some modifications to my poster and checked the text but forgot to check the images and had a couple inconsistencies that I didn't realize until after it was printed. 