Junior Scientists Survival Training Excites LA-SiGMA Students

Public speaking and leadership took center stage for research students at a recent retreat funded by EPSCoR and organized by LA-SiGMA students. Undergraduate and graduate students and postdoctoral researchers learned about the importance of idea sharing, presentation making and networking at the second annual LA-SiGMA Students Retreat held at Tulane University. The student-led retreat included 43 students from the seven schools participating in the Louisiana Alliance for Simulation-Guided Materials Applications (LA-SiGMA). As one attendee put it: “the informal ambience, facilitated in part by the absence of faculty, enabled lively discussion among students who shared their research experiences and challenges.” The one-day event provided students a unique opportunity to interact with their colleagues from other campuses, and was structured so they had the opportunity to report on their research findings, network with one another and hear from guest speakers.

The guest speakers added a dose of reality to the day. LSU graduate student Chinedu Ekuma, who helped organize the retreat, said the talk by Dr. Peter J. Feibelman “was not just a [science] talk, but a career talk.” Dr. Feibelman is a Senior Scientist at Sandia National Laboratories in Albuquerque, NM. His talk, entitled “Junior Scientist Survival Training,” provided students with ways to establish a scientific identity and persuade the research community that each student deserves to become a permanent member.

“Though curiosity about nature and the romance of discovery are what draw us to a research career, landing a permanent research position also requires hard-headed self-analysis and a realistic approach to the scientific marketplace,” says Dr. Feibelman. Southern Baton Rouge graduate student, Michael Benissan, said he listened intently during Dr. Feibelman’s talk as he “provided vital advice on establishing a rewarding career in academia.” Benissan was quick to adopt the practices outlined in Dr. Feibelman’s presentation: just one week later Benissan made his own presentation at a conference in Puerto Rico, which he modified to reflect Feibelman’s suggestions.

Students also had an opportunity to showcase their own research in a concise manner geared toward the lay audience. Coined ‘elevator speeches,’ these five-minute talks addressed each student’s research and educational activities – including the purpose, the software used, their respective analysis methods, and conclusions they have made thus far. Each talk incorporated a short PowerPoint presentation. Students who shared their experiences were entered in a raffle to win a copy of Dr. Feibelman’s book, “A PhD is Not Enough: A Guide to Survival in Science.”

Benissan, a native of Ghana, was one of the two students who won the raffle. “The thought of condensing months of research into four PowerPoint slides while conserving the essence of my research goals and progress was daunting,” Benissan said. However, the positive feedback he received from his colleagues was a good indicator that the audience understood the relevance of his research on thermal barrier coatings and their use in our world today.

Michael Khonsari, Associate Commissioner for Sponsored Programs

Students are the lifeblood of the State's research and development future

- Michael Khonsari, EPSCoR
The retreat is another example of the importance of EPSCoR to the students. “They get to meet experienced researchers, like Dr. Feibelman, and empathize with other students who are having the same experiences they are,” said Dr. Khonsari. Benissan, who is supported by NSF EPSCoR through LA-SiGMA awards, said that he not only appreciates the financial support of EPSCoR and LA-SiGMA, “but also the prominent role models they make available to me and my other student colleagues.”

Attendance increased from 30 participants last year to 43 participants this year. Based on feedback from the first retreat, the planning committee included more time for group discussion and opportunities for individual presentations. One suggestion that was made after this year’s retreat was to meet more frequently.

Special thanks to Professor Lawrence Pratt, the faculty adviser for the retreat. Dr. Pratt is the Herman and George R. Brown Chair in Chemical Engineering at Tulane University. His classes and research interests revolve primarily around statistical mechanics and thermodynamics.

LA-SiGMA Explained

The Louisiana Alliance for Simulation-Guided Materials (LA-SiGMA) pushes the scientific frontiers in computational materials science, and prepares Louisiana researchers to use the next generation of heterogeneous, multicore and hyper-parallel cyberinfrastructure effectively. LA-SiGMA builds state-wide interdisciplinary research collaborations involving computational scientists, computer scientists and engineers, applied mathematicians, theorists and experimentalists. Most significantly, the Alliance builds materials science graduate curricula that are unique in its statewide reach and impact, and will be a model for virtual organizations for advanced education and training of graduate students and post-doctoral fellows.

The LA-SiGMA research program consists of three major science drivers in areas of current strength in the State, and of great technological and economic importance: Electronic Materials, Energy Materials, and Biomolecular Materials.

The Alliance members are: Louisiana State University (lead institution), Grambling State University, Louisiana Tech University, University of New Orleans, Southern University at Baton Rouge, Tulane University, and Xavier University.