

Lake Forest Students Present Their Research at Regional and National Symposia

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During the fall of 2006, undergraduates from Lake Forest College (LFC), including myself, organized their research into posters and PowerPoint presentations to exhibit at regional and national academic symposia. Specifically, participants conducted laboratory or field research on either Parkinson's disease, cell volume regulation, RNAi, addiction, or avian biology. Fourteen LFC students presented this great diversity of biological study at the Argonne National Laboratories Undergraduate Symposium in lecture form. Lokesh Kukreja, Michael Zorniak, and myself went a step further and traveled to San Diego, California to present two posters on our fission and budding yeast models of Parkinson's disease at the American Society for Cell Biology. Whether presenting on the regional or national scale, young scientists from LFC demonstrated their individual research in biology and enjoyed the fellowship of other undergraduate and graduate students.

The Argonne symposium consisted of undergraduate research, organized into mini-symposia consisting of several twenty-minute individual talks. Hundreds of students from the states surrounding Illinois attended. There were many presentations to choose from, and it was interesting to learn about a vast array of topics. I noticed that the structure of each talk differed significantly between colleges, indicating differences in teaching styles. Michael Zorniak said that Argonne, "strengthened my communication skills by challenging me with a diverse audience." In the morning, a local high school physics teacher conducted a series of insightful demonstrations on the characteristics of shadows. The evening lecture was given by a chemist and, like the first, used a series of colorful chemical reactions to demonstrate the digestive functions of the stomach. Humorously, his chemists' view of acid digesting food neglected most of the biology behind the process.



In December, Lokesh Kukreja, Michael Zorniak, and myself traveled with our P.I Shubhik DebBurman to the American Society for Cell Biology symposium in San Diego, California for what would be one of my most memorable experiences. There were nearly 15,000 attendees, the majority of which were graduate and post-doctoral researchers. Fewer than 1,000 undergraduates attended. We presented two posters on our study of α -synuclein, the protein involved in Parkinson's disease, on the fifth and final day of the symposium. With several days of free time, we visited a variety of lectures, poster presentations, and

wandered around the San Diego Convention Center checking out all the latest biotechnology.

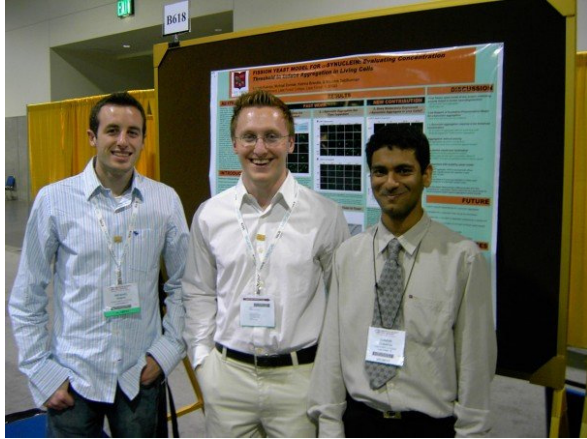
Many famous scientists, such as Susan Lindquist, presented their research or participated in panel discussions involving the audience. Surprisingly, the NIH Director was in attendance and answered passionate questions on the current state of research funding. In addition to all the serious research being presented, there was an event called "Cell Slam" that was one of the most memorable parts of the trip. Participants were given several minutes to do anything they wanted in regards to cells. One scientist sang a parody of "Let it Snow" that went, "The funding situation is frightful but my grant is so insightful...Let it go, let it go, let it go". The crowd loved it. This demonstrated that scientists loved taking a humorous attitude toward science.

One afternoon during the symposium, Lokesh, Michael, and I decided to take a break from the science and travel to Tijuana, Mexico. It was a great opportunity for us to take advantage of the community surround San Diego. At the U.S.-Mexico border we took a cab into downtown Tijuana and had a drink at a local restaurant. Surprisingly, there were pharmacies on every corner. To get back into the U.S. we waited over an hour and wondered if we would ever get back to the symposium. Several hours later, we returned and had numerous stories to tell, such as the donkey painted as a zebra.



Caption: Tijuana, Mexico 2006. Michael Zorniak (left) and Michael White (right).

On the final day, Michael and I presented our poster on budding yeast and Lokesh on fission yeast. Initially, I felt that the graduate students would be extremely critical of our work but once several visited and discovered we were undergraduates and our research was respectable, their comments were insightful and full of praise. A young scientist from Mayo Graduate School also worked with yeast and gave great suggestions for future experiments, one of which I am currently performing. In addition, all three of us discussed our research with others in similar fields and found these conversations very beneficial. This experience increased our confidence and demonstrated that undergraduate research can be presented alongside more advanced studies. When Michael Zorniak was asked what he liked most about attending the ASCB he said, "I was able to interact with scientists from as far as Tokyo, Japan that were interested in the same research questions. Even as an



Caption: American Society for Cell Biology San Diego, California 2006. Michael White (left), Michael Zorniak (center), and Lokesh Kukreja (right).

undergraduate, I was able to propose experiments to graduate students in the same field.”

Together, presenting undergraduate research on both regional and international levels, provided others and myself with an indispensable asset to our intellectual growth as well as peer fellowship. Furthermore, it allows students to gather perspective on the broader research community and realize that they are a significant part of it. And of course, a trip to Tijuana adds a little more excitement to an already intriguing experience.

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