



Monday, April 7, 2003

Students present research findings

By **Jeff Samoray**, *OU Web Writer*

Oakland University students had a unique opportunity to present their research findings and gain presentation experience at the Department of Biological Sciences 25th Annual Student Research Conference April 5 in Dodge Hall.

Selected students from **biology**, biochemistry, **chemistry**, the **Eye Research Institute** and the chemistry/biology collaborative Merck Summer Research Program displayed their work through poster presentations modeled after those given at professional scientific meetings. Of the 18 participating students, two are graduates. Oakland University is one of the few institutions in the country that provides a forum for undergraduates to present their substantive research projects.

"The thing that makes our conference unique is the mixture of undergraduate students and funded faculty," said Associate Professor of Biological Sciences and Department Chair John Cowlshaw. "It's a little out of the ordinary."

More than 70 persons, including about 15 biological sciences alumni, were present for this milestone event. The turnout was high despite the ice storm that hit the area and resulting power outage, which cut the conference short.

"Students were able to display their poster presentations, but we just couldn't continue with the oral presentations," Cowlshaw said.

Associate Professor of Biological Sciences Fay Hansen, who is a member of the conference organizing committee, said the oral presentations would be rescheduled at a date yet to be determined.

Cowlshaw opened the conference by giving a brief history of OU's Biological Sciences Department, highlighting the presenters at some of the early conferences.

"The posters become glossier and more sophisticated every year," Cowlshaw said. "As I went around to look at the displays, the students immediately stepped up and were ready to interact and answer any questions."

Some student presenters have gone on to have high-profile careers: Greg Howells became chief of surgery at William Beaumont Hospital and Howard Birndorf established a succession of biotech firms near San Diego that have grossed \$2 billion. Both students presented at the first conference in 1969.

The poster presentations included:

- Jennifer Froelich – "Development of an Accurate Piezoimmunosensor"
- Jaspreet Gill – "Effects of Steroids on the Expression of Tumor Suppressor Protein p53 and Oncogene V-SRC"
- Smriti Gupta – "Discovery of Helitron Type Transposable Element in Maize"
- Andrea Hartlerode – "The Relationship Between Polyhydroxybutyrate Synthesis and hema Expression in Rhodobacter Sphaeroides 2.4.1"
- Adnan Hussain – "Cytotoxicity of Pesticides in Embryonic Stem Cells"
- Afreen Siddiqui – "Mapping Novel Signal Transduction Pathways in the Retina"
- Aaron Smith – "Osteogenic Differentiation of Embryonic Stem Cells"
- Robert George – "Expression Analysis of Alternatively Spliced Genes in Arabidopsis Thaliana"
- Aisha Chaudhry – "Inhibition of Plasminogen Activation Prevents Ganglion Cell Death in the Retina"
- Adrain Vasquez – "Discovery and Expression Analysis of Alternatively Spliced Genes in Arabidopsis Thaliana"
- Aaron Smith – "Osteogenic Differentiation of Embryonic Stem Cells"
- Sara Pelliccia – "The Effect of UVA Light on Antioxidant Enzyme mRNA Levels in Human Lens Epithelial cells Cultured at 3% and 20% O₂"

The oral presentations to be rescheduled include:

Ecology Session

Kathy Simons – "Growth and Stabilization of the Zebra Mussel Population in Lake St. Clair"

- Melissa Noble – "The Source of Kin Recognition Pheromones in the Social Wasp"
- Jamie Togal – "The Communicative Meaning of Body Oscillations in Social Insects: Causal Evidence from Playback Experiments"

Cellular and Molecular Biology Session

- Adnan Hussain – "Cytotoxicity of Pesticides in Embryonic Stem Cells"
- Lisa Macauley – "Requirement of Progressive Motility in Demembrated Mouse Sperm"
- Aaron McBride – "Development of High Throughput, Cell Free Transcription Activation Assay"
- Aaron Sabbota – "Apoptosis in an Estrogen-Induced Tumor"
- Andrea Hartlerode – "The Relationship Between Polyhydroxybutyrate Synthesis and hemA Expression in Rhodospirillum rubrum 2.4.1"
- Rebeca San Martin – "TIMP 2 Determination of Estrogen Dependent Pituitary Tumors"
- Jennifer Froelich – "Rational Design of Recombinant Antibodies for Biosensors"

For more information on department programs, research, faculty and a seminar schedule, visit the **Department of Biological Sciences** Web site. Visit the **Research** Web site for details about research opportunities at Oakland University.

SUMMARY

Oakland University students had a unique opportunity to present their research findings and gain presentation experience at the Department of Biological Sciences 25th Annual Student Research Conference April 5 in Dodge Hall. Oakland is one of the few institutions in the country that provides a forum for undergraduates to present their substantive research projects.

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