



The Department of Biological Sciences

The University of Delaware

December 2007

Greetings from the Chair

Once again, on behalf of all the faculty, staff and students of the Department of Biological Sciences, I extend our best wishes to you and hope you will enjoy this update on departmental news. We have enjoyed sustaining our existing traditions as well as initiating some new efforts. We also are extremely grateful to you for your generous donations. These funds allow us to continue key programs, pursue new initiatives and provide special opportunities to our students. Again, we were pleased to see so many of our undergraduate and graduate students receiving local and national awards for their accomplishments.

Undergraduate Research remains a flagship program in the university and the nation. As always, we deeply appreciate the efforts of Drs. Dave Usher and Hal White along with all of the fantastic students and mentors who make this program a standout. Most of these students pursue careers in biological research or medically-related professions in premier institutions and are a strong demonstration of the excellence of the programs here at UD. The "hands-on" nature of their research experience always is an impressive feature of their resume.

Our Graduate Program continues to grow in size and quality. Many of our students have received highly competitive training grant support from various agencies to support their research. Moreover, their work is frequently featured at national or international scientific meetings. Two of our students, Melissa Bonner and Patricia Jones, were selected to meet with a group of Nobel Laureates this year in Germany, a true honor. The work and recognition of these students reflects the excellence of our faculty's research programs. We continue to be one of the top extramurally funded programs at the University of Delaware in an extremely competitive funding climate.

This year's Milton Stetson Undergraduate Research Fellowship to an outstanding



Photo by Tyler Jacobson.

Patricia Jones (left) and Melissa Bonner

undergraduate researcher was presented to Adam Brady. Dr. Stetson, a former professor, department chair and highly regarded researcher, dedicated his career to undergraduate education and research. We also appreciate the support of an anonymous donor who provided funds for our Graduate Student Publication Excellence Award which was given to Weiping Wang.

We are pleased to have Dr. Jennifer Nauen join our faculty this year. Dr. Nauen worked for several years at Harvard University and will bring new ideas and leadership to our approach to introductory biology education, key to all of our students. Dr. Bruce Boman, formerly of Thomas Jefferson University, also will be working here in Wolf Hall and brings a cutting edge research program in Cancer Genetics. His program will add significantly to the new Center for Translational Cancer Research, under the Directorship of Dr. Cindy Farach-Carson. This Center has received substantial support from UD, the community and the state and is further enhancing our ties with the A.I. duPont Hospital for Children/Nemours Foundation and Christiana Hospital/Helen F. Graham



Jennifer Nauen

Cancer Center, as well as providing new training experiences for our undergraduate and graduate students. On a very different note, we mourn the passing of Dr. Victor Lotrich, a former professor in our department who taught at UD for many years. His contributions in the laboratory and classroom made a great impact on both his colleagues and students. He will be missed by many.

This year also witnessed the inaugural Arnold M. Clark Lectureship in Molecular Genetics. This endowed lectureship honors Dr. Clark, a former professor, department chair, researcher and mentor and was established by a generous donation from Dr. and Mrs. Howard E. Hudson. This year's lecture was given by Alfred Sommer, M.D. of Johns Hopkins University and was titled "Vitamin A Deficiency and Global Mortality". Future speakers are now being scheduled for this annual endowed lectureship which represents an exciting new opportunity for our students and fellows to meet the world's premier genetic researchers.

As always, I again thank our many alumni/ae for your generosity throughout the year. In addition to the programs described above, a critical new effort will be the establishment of several endowed professorships to recognize our most accomplished faculty members. You can be a major and lasting part of these traditions by your contributions, large or small. Information on how to donate is included both later in this Newsletter as well as at our web site: <http://www.udel.edu/bio/>.

Please browse the site for news and to see some familiar faces!

Daniel Carson
Trustees Distinguished Professor and Chair
Department of Biological Sciences

Alumnus Receives Presidential Citation



Photo by Kathy F. Atkinson

Sujata Bhatia

On October 13, 2006, Dr. Sujata Bhatia received a prestigious Presidential Citation for Outstanding Achievement from the University of Delaware in ceremonies in the new Gore Recital Hall at the Center for the Arts. The Presidential Citation is given to alumni who have exhibited extraordinary promise in their professional activities. Not

only did Dr. Bhatia earn a BA in Biology in 1999, she also earned undergraduate degrees in Biochemistry and Chemical Engineering and a master's degree in Chemical Engineering that same year. After leaving UD, Dr. Bhatia entered a combined MD/PhD degree program at the University of Pennsylvania. She completed the two degrees, which usually takes eight years, in only four years. Her thesis entitled "Experimental & Computational Models of Leukocyte Adhesion via Selectins and Integrins" earned her the 2002 Andrew Moisoff Young Investigator Award by the Lymphatic Research Foundation. After graduating from the University of Pennsylvania in 2003, Dr. Bhatia was hired by the DuPont Company where she is now a senior scientist and team leader in the development of bio-adhesives for internal wound closure and principal investigator for new interventional medical devices for cardiovascular applications. In 2005, the National Academy of Engineering selected her to participate in the Frontiers of Engineering symposium, an honor given

to the nation's top 100 engineers ages 30-45, even though she was only 28 at the time. In 2007 she was the co-organizer for this event, which was held in Japan.

Dr. Bhatia continues to be involved with our department here at UD. For the past three years she has participated in our HHMI funded summer enrichment program for undergraduates, speaking to students, who have been awarded summer research fellowships, on how to apply to medical schools or combined MD/PhD programs. She also recently planned a new event on campus, the Science Café, at the Brew Ha Ha Coffeehouse, which was sponsored by the American Chemical Society. The Science Café provided a non-traditional setting for scientists to share their work and discuss a wide range of scientific and philosophical issues of public relevance with students. We are very proud of Dr. Bhatia's achievements and continued contributions to UD and the region.

Alumni News

Stuart Williams (B.A. 1974, Ph.D. 1979) is now the Scientific Director of the Louisville Cardiovascular Innovation Institute in Louisville, KY.

Gregory Caputo (B.A. 1976) was recently named Robert E. Dye Professor of Medicine and Chief Quality Officer at Penn State College of Medicine and Hershey Medical Center in Hershey, PA.

Paul Chaney (B.A. 1980), Executive Vice President of OSI Pharmaceuticals and President of OSI Eyetechnology, was appointed to the Board of Directors of EyeGate Pharma in Waltham, MA.

Stephen Ebersole (B.A. 1993) practices primary family eye care with emphasis on the early detection of potential eye and vision problems in infants and children at Optometric Associates in Lewiston, ME.

Christine Sullivan (B.S. 1994) received an M.A. in Teaching from Concordia University and teaches sixth grade Life Science in Portland, OR.

Paul Bauman (B.A. 1997) is a Project Director in the Quality Assurance Practice at LRA Worldwide, Inc. in Horsham, PA.

Thanks to everyone who sent us their news!

Have exciting and interesting things happened to you since you left UD? Do you wonder if the same is true of other students you knew here? The Department of Biological Sciences is asking you to tell us so we can share your stories with fellow Biology alumni in future editions of our newsletter. Let us know what special things have been going on with you, personally or professionally, by filling out the form below and sending it in, or better yet, complete the online form at: <http://www.udel.edu/bio/news/alumni/>

Please fill-out the following form, cut along dotted lines and return.
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Please return completed form to Dr. David W. Smith, Department of Biological Sciences, University of Delaware, Newark, DE 19716. Thanks for your cooperation!

We need your help!

Biology has been busy on all fronts. Your tax-deductible gifts are deeply appreciated and make a huge difference in program development. If you are already planning on donating to the University of Delaware, you may target your support to the Department of Biological Sciences. Please join us in this effort by sending your donation to:

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Ph.D. Grads Excel in their Profession



Diana Willis

Graduate education in the Biological Sciences is designed to prepare students to think critically about biological problems, independently devise hypotheses and design experimental approaches to test these hypotheses. This training is very time consuming and requires high levels of personal commitment by both our faculty and the students undertaking this training. After graduation, Ph.D. students use their new skills in a variety of different venues to make the scientific

enterprise work. Our graduates are very successful in their chosen fields as highlighted by these recent alumni:

Rania Al-Shami (MBA 2003, BISC Ph.D. 2005; advisor Dr. Mary C. Farach-Carson). Dr. Al-Shami was one of the first graduates of our innovative program that allows Ph.D. students to complete their Masters of Business Administration while enrolled as a Ph.D. student. Dr. Al-Shami is the manager of the Scientific Investment Committee of DuBiotech, which administers the Dubai Biotechnology and Research Park, United Arab Emirates. Dr. Al-Shami is currently working on the development of a Training Institute offering continuing education and certifications for Life Science Professionals and also has responsibilities for the review of business plans generated by companies interested in joint ventures with DuBiotech.

Dianna Willis (BISC Ph.D. 2002; advisor Dr. George Molloy). Dr. Willis has just

completed her postdoctoral training at the Nemours Research Institute, Wilmington, DE, and was awarded a highly competitive five year K99 award from the National Institutes of Health to investigate the mechanisms underlying the chronic, neuropathic pain which people experience as a consequence of peripheral nerve injury or inflammation. The goal of her work is to set the stage for new interventions to treat chronic pain, which responds poorly to current pain treatments.

Ying Zheng (BISC Ph.D. 1998; advisor Dr. Patricia Martin-Deleon). Dr. Zheng is currently Director of Cell Biology Research at the Aderans Research Institute, Philadelphia, PA. This Institute specializes in investigations which have the potential to lead to hair follicle regeneration in people with substantial hair loss. Her work seeks to identify, isolate and characterize adult stem cells from human scalp that have the potential to reproduce hair follicles for use in hair transplantation.

What's New with David Usher



David Usher (right) and Hal White, directors of the HHMI program at UD

David Usher came to the Biology Department at UD in 1978 from the University of Illinois Medical Center where he had been a Post-Doctoral Fellow in immunology. This completed his eastward professional migration as he received his B.A. in Biology from the University of California at Irvine and M.A. and Ph.D. degrees in Microbiology from the University of Iowa.

During his time at Delaware, Dr. Usher has taught three different courses multiple times:

BISC 105 (Human Genetics), BISC 471/671 (Immunology) and BISC 100 (Freshman Seminar). His research addresses lipid transport and heart disease, especially the relation to obesity. In addition to having a large number of undergraduate students in his laboratory over the years, Dr. Usher has also been the thesis director for five M.S. and four Ph.D. students.

Since 2000, Dr. Usher has been the Associate Chair of the Biology Department with broad responsibilities in both the undergraduate and graduate programs. He has been a tireless champion for involving undergraduate students in laboratory research with faculty, and was instrumental in our receiving grants from the Howard Hughes Medical Institute (HHMI), National Institutes of Health (NIH), Department of Defense (DOD) and the Beckman Foundation. He annually leads a group of undergraduate researchers to make presentations at national meetings, where many have won awards.

Yet another area of Dr. Usher's accomplishments is his involvement in programs to increase the participation of minority students in research. His interest in this very

important activity got a major stimulus when he was on sabbatical leave at Johns Hopkins University and saw how difficult it was to recruit African Americans into clinical trials there. Since then he has been involved in the NUCLEUS and McNair Scholars Programs, and has secured grants to work with both Delaware Technical and Community College and Lincoln University to increase their minority students' success in education and research.



Dr. Usher speaks at meeting of NUCLEUS students in July

Remembering Victor Lotrich



Vic Lotrich

Vic Lotrich died on May 24, 2007, after a 10 month battle with cancer. Diagnosed in the summer of 2006, Vic faced this ordeal with great courage. He was an inspiration to his friends and family.

Vic grew up in a small town on the plains of Eastern Colorado. In high school he was a star basketball player. He attended Colorado State University on a full basketball scholar-

ship and majored in Biological Sciences. While serving in the Air Force for three years after college, Vic spent a lot of time in F-89 jet fighter planes as a member of a two-man crew. In its day the F-89 was the main fighter plane of the US Air Force. Vic also coached basketball while serving in the Air Force. After leaving the Air Force, he earned his Ph.D. degree in Biology from the University of Kentucky and joined the University of Delaware in the fall of 1969.

By training, Vic was an ecologist. However, he was also a generalist and taught a number of courses ranging from BISC 103 General Biology for non-majors to advanced courses in ecology for graduate students. Pick almost any topic in biology and Vic could carry on an intelligent conversation.

For several years Vic's course in Environmental Biology was one of the most popular courses offered by the department. It attracted students from biology, engineering, agriculture and nursing. Students in his senior level course in Vertebrate Natural History loved the stories he told about vertebrates in their natural habitats. Despite the battle he was waging, Vic taught Vertebrate Natural History dur-

ing Winter Session 2007 and was planning to teach General Biology during the summer of 2007.

Vic's research was in the broad area of the ecology/evolution of fish populations. For a number of years he held a joint appointment in the College of Marine Studies. During this time he mentored a number of students at the Master's and Ph.D. levels.

In his life away from the University, Vic was a devoted husband to his wife Gerri for over 50 years. He was also the father of Sally, Victor and Heather and the grandfather of Drew, Mattie and Connor. Vic was a history buff and collector of books. His general knowledge about the southwest United States was mind boggling. He also loved music and had a wonderful singing voice. After Vic retired as a full time faculty member several years ago, he and Gerri spent a lot of time traveling throughout the United States.

In retirement, he treasured the times when he could be back on campus teaching General Biology and Vertebrate Natural History. He will be missed.

**For more on most of these and other stories, visit the News Archive section of our web site at:
<http://www.udel.edu/bio/news/archive/>**

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University of Delaware
Wolf Hall
Newark, DE 19716

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