

The Department of Chemistry Newsletter

Spring 2005

A Message from the Editor

This spring marks the end of my 30th year at the University of Evansville. As I sit here at the keyboard, I am reminded of the many fine students and wonderful colleagues that I have known since I arrived here at the tender age of twenty seven. Now, I'm beginning to think about retirement in the not-too-distant future and all the new and exciting experiences that it will bring. We've had a pretty exciting year here, as well, so let's see what the news is.

The Kresge Grant

The University of Evansville has received a \$228,000 challenge grant from the Kresge Foundation to purchase and maintain science equipment. A total of \$342,000 for equipment has been raised thus far, including \$114,000 from the Kresge Foundation. According to Jack Barner, the university vice president for institutional advancement, if the university raises \$465,000 by September 1, 2006, we will receive the remaining \$114,000 of the grant. The purchase of new instruments has already begun. Purchases will include an Oriel 0.25 meter monochromator with computer interface to be used with our laser setup; two data acquisition boards, one very fast the other high accuracy, along with LabView software for interfacing instrumentation to a computer; a digital storage oscilloscope; a refrigerated centrifuge; a Photon Technology International, Inc. fluorescence system; an electrochemical detector and data acquisition system; and an inductively coupled plasma-optical emission spectrometer.

Departmental Review

As part of a campus-wide series of departmental reviews, we spent much of the winter gathering information and writing narrative descriptions of our program and faculty. The process culminated with the visit of an outside reviewer, **Dr. David Kurtz**, of Ohio Northern University. His report was quite positive with comments such as "The ACS accredited department has developed an innovative curriculum which allows flexibility in serving other strong programs at U.E. while providing some specialization through the fifth and sixth semesters of chemistry." It was helpful for us to gain a sense of where our program stands with respect to those of other similar institutions.

The Barometer

Dr. Lynch's Interdisciplinary 480 honors class, composed mostly of our chemistry and biochemistry seniors, built a 35 foot tall water barometer in the Koch Center Atrium. The design and building project was an attempt to increase the visibility of science on the UE campus and to demonstrate the relationship between barometric pressure and the weather. The barometer is constructed of a flower pot, clear PVC tubing, valves, and blue colored water. It is accurate to

within 1 inch (of water!) when compared to the department's mercury barometer. Funding for the project was provided by **Dr. Jean Beckman**, past chair of the department and now Dean of the College of Arts and Sciences. We hope when you next visit the campus you will be sure to visit the barometer in the Atrium.



The ID 480 class



Rather tall, isn't it

News of our Faculty

Kristy Miller

I recently joined the department after completing a Ph.D. in biochemistry at the University of Louisville last April. Being from Washington, Indiana, I feel right at home in Southern Indiana. Since this was my first year teaching, most of my time was spent designing and developing both introductory chemistry and biochemistry courses. I am excited to have two students, **Angela Elsten** and **Sean Vaughn**, participating in undergraduate research and working with me this summer on a project entitled, "The Role of Bioactive Sterols in the Tissue Specific Regulation of 11_β-hydroxysteroid dehydrogenase." Although this past year has been quite busy, it has also been very productive. I feel privileged to be working with such enjoyable students and colleagues who have helped me feel right at home.

Bryan Lynch

This was an exciting year for me and for the physical chemistry curriculum. In the summer, thanks to two UE granting agencies, a 4 by 6 foot laser table was delivered; this stable "home" for our laser will allow us to find even more uses for our laser system in teaching and undergraduate research. This year **Brian Alberding** became my first undergraduate research student working in the laser lab. His project was to develop a method for controlling the temperature of our iodine gas cell and to acquire high resolution absorption and emission spectra of this simple diatomic molecule. In addition to working with our laser system, Brian learned many valuable skills, like glass blowing and turning threads on a lathe in our engineering shop. I continue to be an active member of the local ACS section. This year I finished up my term as Chair, and I enjoyed performing demonstrations with students from Joshua Academy, Dexter Elementary School, and Impact Ministries

Don Batema

I continue to teach in the Chem 118 and 240 labs as well as the evening environmental science classes in the BLS program. **Joseph Pleen** spent last summer working with me on developing GC/MS methods for detecting atrazine and its metabolites in wetlands. Joe didn't get as far as he had hoped, but did detect small amounts of atrazine in some of the wetlands we sampled. I hope to continue working on the methodology this year. I also began the third year of a long term study on the bird populations at the Bluegrass Fish and Wildlife Area. I hope to use birds as indicators to assess environmental changes in the area. In January 2005 I presented the results of the first two years at the Audubon Society meetings. Finally, I have been accepted to attend an NSF regional workshop on New Approaches and Techniques for Teaching Science. The focus will be addressing environmental problems to stimulate undergraduate learning. I will use experiences gained from this workshop to develop a new course in the environmental studies program.

Bill Morrison

Our seventeen-year-old daughter is now looking for the right college to continue her education in the fall of 2006. Her five weeks last summer at the Stella Adler Studio of Acting in New York City were a rousing success, so her search is focusing on schools with strong liberal arts and programs in drama and musical theater.

Lowell Weller

Professor Weller stops by the department from time to time for a visit. He and Eloise are doing well and continue to live in Evansville.

Phil Kinsey

Doctor Kinsey continues his new career as "Doctor Golf" doing custom design and fabrication of golf clubs.

News of our Students

This Year's Graduates

Brian Alberding will begin graduate studies in chemistry at The Ohio State University.

Dan Deatherage will enter the graduate program in molecular cellular developmental biology at the Ohio State University.

Matt Jones has been accepted by the Southern College of Optometry in Memphis, Tennessee.

Lauren Massey will enter the University of Kentucky College of Dentistry in Lexington.

Morgan Oberle expects to begin medical studies in the fall.

Christi Riley has been accepted by the University of Kentucky College of Pharmacy.

David Winternheimer will begin graduate studies at UCLA in the area of organic pharmaceuticals and natural products chemistry.

Summer Plans of Some Sophomores and Juniors

A number of students will spend part of the summer doing research here at the University of Evansville. **Angela Elsten** and **Sean Vaughn** will work with **Dr. Miller**, **Megan Gootee** with **Dr. Lynch**, **Emily Maurer** and **Jessica Wojtas** with **Dr. Lutgring**, and **Kevin Ruble** with **Dr. Kaufman**. **Jessica Frisz** will do summer research at the University of Kansas and **Mandir Helms** will do research at Texas A&M University. **Sheena Donald** will be doing summer research at the University of Southern Indiana branch of the Indiana University medical school. She will also start an environmental co-op with Toyota in the fall.

Student Award Winners

Each year the Indiana-Kentucky Border section of the American Chemical Society presents awards to our outstanding sophomore and senior majors. The awardees this year are sophomore **Kim Fessel** and senior **David Winternheimer**. The CRC award for outstanding work in freshman chemistry (a Handbook of Chemistry and Physics) went to **Aaron Wiles**.

Chemistry Club

The Chemistry Club started off the year with a welcome back picnic at **Dr. Lutgring's** house. In November, the club helped out with National Chemistry Week and demonstrations in fourth grade classrooms. During finals week, the club had a holiday pizza party during finals week. In January, the club sold organic chemistry model sets and lab notebooks as a fundraiser. The club ended the year with a spring banquet at the Olive Garden honoring the graduating seniors. 2004-2005 was also the first year for **Dr. Kristy Miller** as the new Chemistry Club advisor. The club is looking forward to next year and is also planning to reestablish the affiliation with the American Chemical Society by becoming an ACS student affiliate. The officers for 2005-2006 are: President: **Jessica Frisz**, Vice President: **Brad Hubartt**, Secretary: **Kyle Klene**, Treasurer: **Josh Zars** and Activities: **Mandir Helms**.



Our seniors at the Olive Garden banquet

Other Student News

Ashley Neuman will serve as the president and **Seth Hall** as the vice president of student government next year.

Alumni News - This section is updated as we receive news of our graduates.

Kim Brown '04 is currently working as a forensic scientist/drug chemist for the Indiana State Police in Fort Wayne

Jamie Bruns '01 is finishing her fourth year as a graduate student at Washington University in St. Louis. She has one publication in the *Journal of Organic Chemistry* and reports that three more may be possible. Jamie hopes to defend her dissertation next spring.

Landa Colvin-Marion '02 is working as a chemist at NanoScale Materials, Inc. in Manhattan, Kansas. She has been working on a Master's in Public Health Degree and a Ph.D. in Toxicology at Kansas State University. Landa married Chris Marion '01 last August.

Anna Dowdy '96 is a senior researcher at Procter & Gamble. She reports that she was expecting the birth of twins in November 2003.

Ryan Flamion '99 will graduate from the Ross University School of Medicine on June 10 and will begin residency with the University of Louisville, Glasgow/Barren County Family Medicine Residency Program in Glasgow, Kentucky.

James George '88 is a lead European applications specialist for CodeLink (MicroArrays). He was married in September 2001 to Heidi Bertram; they were expecting their first child in November 2003.

Melanie Giusti '00 is a clinical laboratory scientist with the Hoxworth Blood Center in immunohematology-compatibility at the Cincinnati Children's Hospital Medical Center. She attended the University of Cincinnati to study medical technology/clinical lab science and was ASCP certified in 2002.

Jeremy Heinold '03 has moved to North Carolina to teach at Graham High School. He was to coach basketball and track and teach algebra and geometry with a good opportunity to teach chemistry and physics in the future.

Angie Krieg '95 stops by from time to time and has kept particularly close contact with Nancy Ubelhor. Here is a recent photo of the Krieg family.



Chris Marion '01 is a first year veterinary medicine student at Kansas State University. He and Landa Colvin were married on August 21, 2004.

Kurt Oldenburg '92 continues to work for 3M in the twin cities. He reports that his job is now aligned with quality control instead of manufacturing and that he is the part-time laboratory supervisor with about 25 percent of his job in supervision and about 75 percent in technical areas. Debbie has shifted from graphic design to photography courses. They have been taking photography courses for some four years and have set up a studio and dark room in their basement.

Amy Besing Paik '99 is a senior research engineer at the United Technologies Research Center in East Hartford, Connecticut. She's enjoying life there and has been a project leader for a \$200,000 project during the past year. She was married in January 2004.

Cliff Renschler '77 is deputy director in the Nuclear Weapons Planning & Operations Office of Sandia National Laboratories.

Summer Lockerbie Randall '00 wrote that she expected to finish her PhD at the University of Washington in the near future. My sources tell me that she is applying for work with a government laboratory.

Jesse Reiherzer '04 is working on fuel cells with the Frank DiSalvo group at Cornell University

Brigitte Robinson '03 is a graduate student in chemistry at Indiana University.

David Russell '83 is a Baptist pastor in Ames, Iowa, and has begun a doctor of ministry program at Luther Seminary in St. Paul, Minnesota, with a specialization in university congregations. He reports that his daughter, Zoe, is an aspiring actress.

Randy Scherer '04 has been accepted by Vanderbilt University to begin a doctoral program in materials science and engineering.

Mark Seib '90 is a physician living in Fishers, Indiana. He has served as the president of the Madison County Medical Society for three years and is medical director for Aventis Bioservices (a plasma donation center).

David Schultz, II '94 is a physician practicing with Evansville Primary Care. He reported that he and his wife were expecting their first child last fall.

Laura Schultz '97 continues to work for General Electric Plastics in Mt. Vernon, Indiana.

Crystal Steinmetz '02 continues to work for Red Spot Paint here in Evansville. Crystal arranged a tour of the company for faculty and students of the department during the last academic year. Her son, Shawn, is finishing second grade.

David Summerville '01 began the industrial internship master's program in advanced organic synthesis through the Materials Science Institute at the University of Oregon.

Ben Tucker '01 stops by from time to time. He continues to pursue a PhD in chemistry at the University of Illinois.

Luke Turner '97 completed a doctorate at Purdue University and has taken a postdoctoral position at Bath University in England. He was awarded a Royal Society USA Research Fellowship which will enable him to spend three years working with Matthew Davidson in inorganic chemistry.

Deaths

Clifford Shultz, former member of the faculty and father of Loranelle Shultz-Lockyear, '91, died on May 27 in Lindsborg, Kansas.

Phone system change

All telephone numbers at the university now have the prefix 488. Thus, the number for the Chemistry Department office is now 488-2035

Department of Chemistry Alumni Information Form

Name _____ Year of UE Graduation _____

Address _____

E-mail _____

Current Position _____

Family News:

Education since Leaving the University _____

Travel/ Hobbies/ Honors:

Names and Addresses of Prospective New Students

Feel free to mail this form to us at
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or

send us information by e-mail either via the link on the Department of Chemistry home page
<http://chemistry.evansville.edu> or directly to me at bm8@evansville.edu