LETTER FROM THE CHAIR

A another year has passed with continued positive steps made by the department, despite a few new challenges. Our faculty and graduate student recruiting has brought our numbers to 18 full-time faculty, 5 visiting faculty and 65 graduate students. Three new faculty searches are underway to expand our group to 21. Enrollment in chemistry classes this fall reached a new record of 4,081, including 15 new undergraduate chemistry majors - the most in several years. Completion of the renovations to Bowman-Oddy Laboratories paved the way for improved instruction capabilities and the approval of a new degree option, the BA in chemistry with a concentration in biochemistry. The new biochemistry option is projected to double the number of chemistry majors during the next five years. The increase in student demand for chemistry has stressed the available resources due to reduced state funding for higher education. However, no student has been turned away thanks to creative budgeting and conservative spending.

Every year we share with you outstanding stories of accomplishment by fellow alumni. Did you know UT chemistry alumni were instrumental in the discovery of synthetic diamonds, artificial sweeteners and new pharmaceuticals? Others have held high-ranking positions in academia and Fortune 500 companies, had distinguished careers in medicine, or made positive worldwide impact on the quality of the environment. Included in this edition are new stories from several alumni from the 1950s and 1960s. The department is proud of our alumni's great contributions to science and medicine. We appreciate their willingness to share their stories.

As we move through 2006, we will continue to work to improve our classroom instruction, our research productivity and our service to the University and the community. The department's efforts toward greater national and international prominence can be seen through the recognition our faculty and students are receiving. Dr. Cora Lin and Xuefen Huang received NSF CAREER Awards, bringing the total number of CAREER Award recipients in the department to three. The UT-ACS student affiliates group received the Outstanding designation from the ACS for the fourth consecutive year. And several faculty have been named to high-ranking positions within the University and professional organizations.

There will be numerous new opportunities for instruction and research as UT moves toward a merger with the Medical University of Ohio, and expansion of the department will be possible with the potential construction of a new science building. The department also will align with the University's Capital Campaign and seek opportunities for further growth within the current budget climate. As always, the support of our alumni is tremendous and greatly appreciated.

Best wishes for 2006.
NEW FACULTY PROFILES

Jared L. Anderson joined the faculty as an assistant professor in fall 2005. Dr. Anderson was born and raised in Sturgis, S.D. He obtained his undergraduate degree at South Dakota State University, where he majored in chemistry and minored in German. During his sophomore year at SDSU, he joined the research group of Dr. Jeff Elbert (now at the University of Northern Iowa), where he studied the synthesis, photoreactivity and separation of thiocinnanamides. In his junior year, he joined the lab of Dr. Jim Rice, an environmental analytical chemist, and worked with high throughput soil extractions and analysis by mass spectrometry. In the summer of 1999 under the NSF-REU program, he spent three months in the department of chemical engineering at the South Dakota School of Mines and Technology, performing research under Dr. Jan Puszynski, where he studied the mechanisms of combustion synthesis reactions. After returning to SDSU for his last year, he worked with Dr. Harrell Sellers studying theoretical chemistry using the unity bond index-quadratic exponential function.

Dr. Anderson then attended Iowa State University in Ames, Iowa, where he joined the group of Dr. Dan Armstrong (now Welch Chair at the University of Texas-Arlington). In the Armstrong group, Dr. Anderson developed new analytical uses for a relatively new and exciting group of ionic liquids called ionic liquids. More specifically, models based on inverse-gas chromatography were developed to characterize the multiple solvation interactions of ionic liquids. These models are now used extensively by organic/inorganic chemists when choosing appropriate solvents for synthesis and catalysis. It also was found that when traditional surfactants are dissolved in ionic liquids, they form what appear to be normal micellar structures. A new class of dicatonic ionic liquids possessing ultra-high thermal stabilities also was synthesized and later patented. These ionic liquids are now being incorporated in gas-liquid chromatography as high temperature stationary phases and will soon be commercialized by Advanced Separation Technologies Inc. In addition to his work with ionic liquids, Dr. Anderson also worked extensively with chiral chromatography and mass spectrometry.

At UT, Dr. Anderson's research interests are in bio-analytical, environmental and green chemistry. Because ionic liquids possess a multitude of varying solvation interactions, their efficacy is being evaluated as novel coatings designed for molecule/ion targeting in microextraction experiments. More specifically, his group is interested in designing ionic liquids to target varying environmentally toxic molecules and ions such as $\text{SO}_4^2-$, $\text{NO}_3^-$, Hg$^2+$, Cd$^2+$ and bio-molecules including neurotransmitters and enzymes. By thoroughly evaluating such systems, new classes of "functionalized ionic liquids" will be designed to provide or enhance certain chemical interactions while possessing various viscosity, solubility, or thermal stability profiles. It has been postulated that up to $10^8$ different cation/anion combinations exist in the traditional classes of ionic liquids. A major goal in Dr. Anderson's group is to effectively delineate the contribution of the cation and anion, independently, to ascertain which ionic component contributes the most to varying chemical interactions. By developing models, ionic liquid cations and anions can be "tuned" for specific chemical interactions while possessing desirable physical properties. The pre-micellar and micellar structure in ionic liquids also is of intense interest. Dr. Anderson's group also explores the incorporation of nanomaterials, including quantum dots, nanoparticles and mesoporous silicas, into varying separation processes.

Donald R. Ronning joined the faculty as an assistant professor in fall 2005. His education began at the University of Minnesota. His undergraduate degree is in biochemistry. During this time, he was awarded a University of Minnesota Undergraduate Research Opportunities Program grant to study proteins that regulate the expression of catechol dioxygenases, which are bacterial proteins responsible for the ring-opening step of the aromatic moieties commonly found in environmental pollutants. Other work included protein crystallization of Toxic Shock Syndrome Toxin 1 mutants. These mutants were possible antigens to be used in vaccines to prevent the over-stimulation of the immune system during septic shock or in response to "flesh-eating" bacteria.

Inspired by his initial successes in crystallizing proteins, Dr. Ronning moved to Texas, where he attended graduate school at Texas A&M University. During his time in the department of biochemistry and biophysics, Dr. Ronning studied protein drug targets from the bacterium Mycobacterium tuberculosis in the laboratory of Dr. James Sacchettini. The focus of Dr. Ronning's
research was to determine the three-dimensional structures of *M. tuberculosis* enzymes using X-ray diffraction techniques. The structural information was used to design lead compounds that inhibit the enzymatic activity of these proteins. It is hoped that subsequent research and design will lead to novel classes of antitubercular drugs.

After graduation, he moved to the National Institutes of Health to do post-doctoral work with Dr. Fred Dyda. This work focused on understanding protein-protein interactions and DNA recognition features of two different systems of transposases. His structural work on the Tn7 transposon model system identified protein-protein interactions within the Tn7 transposase that stimulate DNA binding and are essential for the formation of the multi-protein complex necessary for DNA transposition to occur. Other work identified an entirely new class of DNA transposases. Dr. Ronning’s X-ray crystallographic work, along with accompanying biochemical data, showed these ubiquitous bacterial transposases use unexpected systems of DNA recognition, chemistry of DNA strand breakage and DNA joining, and regulation of the transposase activity.

Dr. Ronning’s independent research activities include the transposase research begun at the NIH. In addition, he hopes to leverage his experience in working with protein/DNA complexes to study similar systems in pathogenic microorganisms and viruses. For example, many bacterial pathogens harbor DNA recombination systems that allow these bacteria to evade the human immune system by actively changing the sequence of external proteins. Identifying and characterizing the function and structure of the enzymes necessary for these evasive responses is central to developing more successful therapeutics for diseases such as malaria and Lyme disease. Another example includes viruses that possess very specific nucleic acid structures near the termini of their genomes. To promote replication of the viral genome and the virus itself, viral encoded proteins must bind these terminal structures to recruit essential host enzymes. Characterization of these protein/DNA complexes will facilitate the understanding of the scaffold formation required for viral genome replication.

Steven J. Sucheck, a UT chemistry (BS ’92) alumnus joined the faculty as an assistant professor in fall 2005. After an outstanding undergraduate career at The University of Toledo, he began his PhD training in organic/bioorganic chemistry at the University of Virginia under the mentorship of Professor Sidney M. Hecht. During the course of his PhD studies, he completed NMR and molecular dynamics-based structural studies on the binding interaction bleomycin group anti-tumor antibiotics with DNA. In addition, he synthesized novel inhibitors of the DNA repair enzyme DNA polymerase β and completed synthetic work related to the total synthesis of bleomycin A₂. While at the University of Virginia, he was the recipient of the Alfred A. Burger Fellowship.

He then moved to the west coast in 1998 to pursue postdoctoral studies with Professor Chi-Huey Wong at The Scripps Research Institute. While at TSRI he studied the aminoglycosides, a class of nucleic acid-interactive antibiotics that are used clinically to treat life-threatening infections. The most significant of this work was related to synthesis of bifunctional aminoglycosides and the study of their divalent interaction with RNA using surface plasmon resonance techniques. The new compounds possessed potent activity against important strains of drug resistant bacteria. Also during this period, he was awarded a Postdoctoral National Service Award from the NIH for the proposal titled “Combinatorial-Derived Aminoglycoside Inhibitors of Escherichia Coli 16S Ribosomal RNA.”

In June 2000, he became the first member of Optimer Pharmaceuticals Inc. (www.optimerpharma.com), a spin-off from the Wong lab where he was engaged in research and development projects related to novel anti-infective agents, carbohydrate-based cancer vaccines, and new technologies for the rapid synthesis of carbohydrates. While at Optimer, he was Senior Scientist and Group Leader. Also during this period, he was awarded a Small Business Innovation Research Grant from the NIH for his proposal titled “New Aminoglycosides to Treat Drug Resistant Bacteria.”

Currently, Dr. Sucheck is interested in synthetic investigations useful for defining the structure-function relationships of natural and designed ligands in an effort to better understand the origins of their biological properties. Specific areas of interest include the synthesis and study of nucleic acid-interactive small molecules, glycoconjugates, and biologically active natural products, with an emphasis on naturally occurring anti-infectives. In addition, he is interested in the development of new chemo-selective ligation methods, which would allow traditional synthetic methods to be applied to studying the structure activity relationship (SAR) of biopolymers with therapeutic relevance. Central to these studies are the development of efficient synthetic strategies to achieve these goals.
Cora Lind and Xuefei Huang, assistant professors of chemistry, received prestigious National Science Foundation CAREER Awards to support their teaching and research programs. The awards are for five years and will run from 2006 to 2011. Dr. Lind’s project is titled “Exploration of Negative Thermal Expansion Materials: from Basic Properties to Formation of Composites” and is funded for $543,000. Dr. Huang will study the “Syntheses of Hyaluronan Oligosaccharides as Biological Probes.” Dr. Huang’s project is funded for $525,000. The highly competitive CAREER award program is designed to support promising faculty early in their appointments and allow them to focus on developing both the teaching and research aspects of their academic programs. Drs. Lind and Huang join Tim Mueser, who is currently a NSF CAREER award recipient in the department of chemistry.

AWARDS/SCHOLARSHIPS

The following awards and scholarships were presented at the spring 2005 Honors Tea:

Alfred F. Foster Chemistry Award - Amy Leopold

American Institute of Chemists Foundation Award - Kevin Perzynski

Analytical Chemistry Award - Christopher Leidy and Nathan Auck

Arthur H. Black Award in Analytical Chemistry - Kevin Perzynski

Biochemistry Award - Jennifer Watson

Chemistry for Health Sciences Award - Christina Stemmetz

CRC Press Freshman Chemistry Achievement Award - Chintan Shah

Inorganic Chemistry Award - Ashley Kroust

Organic Chemistry Award - Katherine Swiatek and Tiffany Waller

Physical Chemistry Award - Andrew Stelzer

Outstanding First-Year Graduate Student - Jhindan Mukherjee

Outstanding Graduate Student Research Paper of the Year - Christopher Faehnle and Bingyu Song

Outstanding Teaching Assistant - Adeline Mermet

Arthur H. and Virginia R. Black Merit Scholarship - Tiffany Waller

The Chemical and Allied Industries of Northwest Ohio (CAI-NWO) Scholarship - Jessica Davis

David R. Hostetler Memorial Scholarship - Andrew Stelzer

Henry R. Kreider Scholarship in Chemistry - Andrew Stelzer and Tiffany Waller

James A. Pouré Scholarship in Chemistry - Cecinio Ronquillo

William B. Silverman Scholarship - Cecinio Ronquillo

C.V. Wolfe Scholarship in Natural Sciences - Daniel Lajiness
UT to Combine Forces with MUO
by Andrew D. Jorgensen

By all indications, on July 1, 2006, The University of Toledo will become a new entity, comprised of all UT components and all parts of the Medical University of Ohio, including its hospital. This historic development will bring together two major state institutions of higher education, which have existed three miles apart for the past 40 years. In the early 1960s when the decision was made regarding the third public medical school for Ohio, officials discussed making it part of UT and even locating it on the Bancroft campus. Space limitations and the municipal ownership of UT were arguments against that view. UT became a state institution not long after those discussions, but various technical and political considerations caused the state to use the available land in the area of Byrne and Detroit for the new medical school.

Final legislative action on the merger is scheduled for mid-March, so by the time you read this article, the combination will be certain. The Ohio Legislature and the Ohio Board of Regents (the governing group for higher education) have been strong supporters of this move toward greater cooperation and synergy. This step may be the first of similar or related moves among our state institutions.

The logic of adding a medical school to UT and having MUO as part of a comprehensive university is unassailable. The actual process will be phased in during several years, but the new legal entity will exist from the first day. By mutual agreement of the present boards, Dr. Lloyd Jacobs, president of MUO, will be the president of the new institution. He has been at MUO for more than two years, after serving in leadership roles at the University of Michigan Medical Center. The boards of both universities will be merged, and one new member will be added.

There are 16 bi-university level committees working on making the transition as smooth as possible. These steps are being done very carefully to ensure no disruption to our students, faculty and employees. All are being invited to dream as we become the third largest institution of higher education in terms of budget. Each present institution has annual income of approximately $300 million. UT's student body is about 19,000, while MUO is near 1,500, with many joint students in nursing, physical therapy and public health.

Look for more great things to happen at your UT!

NEW DEGREE OPTION APPROVED FOR CHEMISTRY STUDENTS

A new chemistry degree option, a BA in chemistry with concentration in biochemistry, was approved by the University Faculty Senate in Spring 2005. The new option is designed to serve students with a strong interest in science at the interface of chemistry and biology. Students will take the requirements for the traditional chemistry BA degree, except for physical chemistry, which is replaced by biochemistry, a laboratory class focused in biochemical techniques and advanced biochemistry or biology electives.

In support of the biochemistry laboratory, Richard Carroll, visiting assistant professor of chemistry, Julie Mosher and Tom Kina, received funding for $134,000 through the OBOR Instructional Equipment Program to outfit and modernize the newly renovated biochemistry laboratory (see photo). It is projected that the new degree option will double the number of chemistry majors in the department and attract students with career goals in medicine, biotechnology and the pharmaceutical industry.
William Wiley (MS ’50) dedicated himself to pursuing a graduate degree on a part-time basis while being employed full time in the technical department of Libby-Ford Glass Company. After 3.5 years working at night and on the weekends under the direction of Dr. Paul Block, owner of The Blade and UT chemist, he received his MS degree in 1950. His hard work and advanced degree were a springboard for a tremendous scientific career that resulted in contributions with significant worldwide impact. While at Libby-Ford Glass, Mr. Wiley was a senior chemist on the research team supervised by Joe Ryan that developed the tinted windshield, which is still being used more than 50 years later. Mr. Wiley then moved to Memphis, Tenn to work at Buckman Labs, a family owned chemical company with plants around the world and customers in 85 countries. At the time of his retirement, he was group vice president of marketing.

During his career, he participated in several notable scientific achievements. He handled and marketed polyebeic anhydride as the epoxy catalyst in the honeycomb employed in the heat shield for the Apollo space program. He also participated in the development of a copolymer of vinyl ether and maleic anhydride, which was used as a bodying agent in a commercial shampoo. Mr. Wiley pioneered efforts for the marketing of a copolymer of dichloroethyl ether and tetramethylthlenediamine as a swimming pool algecide-alglstat, which is the largest volume product worldwide for Buckman Labs. His work on the use of an aldehyde condensation product of methacrylic as a deep well cement regulator in the oil patch was awarded a patent. Further, he was associated with research on a chemical that is a major component of a unique polyamine. The combination of this polyamine (6-10) with polyamide (6-6) resulted in the development of a fiber that made production of women’s pantyhose possible.

Warren M. Wise (BS ’51) obtained his first job at 16, and worked his way through The University of Toledo at the Toledo Trust Company bank as a “coin wrapper.” He then did graduate work at Purdue University, where he earned MS and PhD degrees in 1953 and 1955, respectively, while he worked as a teaching assistant in, as he put it, “all phases of chemistry.

After Purdue, Dr. Wise joined Mallinckrodt Chemical in St Louis in 1955, where he worked as a chemist on an atomic energy contract. Six years later, he moved to Corning, NY, and spent the next 30 years there as an analytical chemist with Corning Inc.

DO YOU KNOW AN OUTSTANDING ALUMNUS?

Each year the College of Arts and Sciences recognizes outstanding UT alumni in the sciences, humanities and the social sciences. Departments in the college are invited to submit nominations for these awards. We invite nominations of fellow alumni or self-nominations. This can be done by sending a resume or a short description of career accomplishments, which supports consideration for the award, to the department by mail or e-mail (utchem@utoledo.edu). Thanks for your help.

He continued with Corning as a consultant for five years after his retirement.

From 1985-1992, Dr Wise also taught chemistry at Elmira College and at Corning Community College in the evening. At the same time, he tutored a number of college students for Regents testing.

Dr Wise has published several articles in Analytical Chemistry and in the Journal of the American Chemical Society. His patents include work on a potassium electrode, a chloride electrode and a nitrate electrode.

Since retirement, Dr. Wise has spent time with his family, traveled, tied fishing flies, and fished. He is especially appreciative of his “special devoted companion, ‘Topper.’ He is my ‘Walking and Brace’ dog trained and obtained through ‘Paws with a Cause’ in Wayland, Mich.”

Dr. Wise resides in Painted Post, NY.

Troy Richey (BS ’58) began his career after graduation from UT at Allied Chemical Corporation on Glendale Avenue in Toledo as a research chemist. He worked there from 1958 to 1961 and then moved to the Johns Manville Research Center in Waterville, Ohio where he served as a research chemist. He retired from Johns Manville in 1976 as a senior research engineer. He resides in Napoleon, Ohio.
Harlan L. Lewis (BS '59, MS '63) is a native Toledan who graduated from DeVilbiss High School. He has had a varied, interesting career since his years at The University of Toledo. He was employed at the Owens-Illinois Tech Center from 1961 to 1963, while working on his MS research on electropolishing transition metal-Mo alloys under the direction of Drs. Albertine Krohn and Nelson Hovey. The O-I Tech Center was located just off campus, in space now occupied by the UT College of Engineering. At O-I, he was involved in organo-silicon and alkoxy-silicon polymers.

After receiving his MS, Dr. Lewis went to the University of Illinois at Urbana-Champaign, where he received his PhD in inorganic-physical chemistry in 1968 for work on lithium organometallics with Dr. Ted Brown. Dr. Lewis then returned to the O-I Tech Center, where he worked from 1968 to 1973. His work there was concerned with the preparation and purification of metal alkoxide compounds as precursors for pure metal oxides as high purity glass components. Unfortunately, Owens-Illinois closed the Toledo Tech Center in 1973.

Dr. Lewis' career then took another direction. He taught AP chemistry, AP math (calculus and differential equations) and physics for five years at Maumee Valley Country Day School. In 1978, he had a one-year position as a research assistant at the University of Toledo, where he worked with Dr. James Dye on the preparation and properties of alkaline earth metal oxides as high purity glass components. Unfortunately, Owens-Illinois closed the Toledo Tech Center in 1973.

In the fall of 1979, Dr. Lewis joined the Naval Surface Warfare Center (NAVSEA), in Crane, Ind., as a civilian employee, where he is currently a senior scientist and program manager in the electrochemical power sources department. His first five years at NAVSEA were spent working on pyrotechnic compositions, principally for decoy flares. For the next 12 years, he managed an analytical services laboratory for the power sources (batteries) department. He then worked as a technical consultant and program manager on various battery chemistries for the Undersea community, NASA and the Missile Defense Agency satellite network. His current responsibilities involve both multi-junction solar cells and lithium-ion battery power for space satellite applications.

Dr. Lewis has four children with his first wife, Lois (nee Eddie), a native of Toledo, who died in 1974. Two daughters were born in Toledo, and a son and daughter in Urbana-Champaign. His oldest daughter lives in Brussels, Belgium, with her husband and three sons, where she is completing a PhD in international law. His second daughter is married and is a software engineer at Microsoft in Issaquah, Wash., while his son is also there with a law firm. His youngest daughter is completing work on an MBA at the University of Wisconsin-Madison.

Dr. Lewis and his wife, Doris Wittenburg, a native of Houston, Texas, reside in Bloomington, Ind.

Clyde Sweet III (BS '66) grew up in Toledo just east of the UT campus on Kensington Road and went to Toledo Catholic schools (Gesu and St. Francis de Sales high school). His mom (Mary Sturz) and dad (Clyde Sweet II) both attended UT in the early 1940s with his dad graduating in the late 1940s on the GI bill. With family roots firmly planted at UT and living so close to campus, Dr. Sweet lived at home and walked to the only university he considered for his college education.

Dr. Sweet majored in chemistry because of his love of science and the knowledge that the best variety of career possibilities were available with a chemistry major. His chemistry classes were in University Hall and the engineering building, which was fairly new in 1962. He recalled his first days in chemistry lab that year were spent learning to use the slide rule. “Computer programming with IBM punch cards would have to wait for another 12 years,” he recalled. During summers, he worked at the Sun Oil Company refinery on the east side for $3 per hour, which allowed him enough money to cover tuition ($300 per semester), books ($100 per semester) and spending money (gas was 35 cents per gallon) for the school year. He learned organic from Dr. Oddy, analytical from Art Black, and did a senior research project in inorganic chemistry with Dr. Frank Walmsley. Dr. Sweet fondly remembers seeing Peter, Paul and Mary in the Field House, meeting Barry Goldwater when he came to campus during the 1964 election, and being on the ROTC rifle team and traveling to other campuses around the Midwest for meets.

Dr. Sweet's class was one of the first to follow the ACS chemistry requirements. After graduation, he continued his education at Case Institute of Technology (now Case Western Reserve University). He received his PhD in biochemistry in 1970, studying chemical interactions in biological membranes, followed by a MS in natural resources in 1976 from the University of Michigan. He has had an extensive career in academia and industry. Dr. Sweet began his career at Tennessee Eastman Company in Kingsport, Tenn., working on food additives (1971-1974). He has been on the faculty at Wayne State University (1977-1979), Clinch Valley College (1981-1983), and Alma College (1983-1985) and held important scientific positions in environmental chemistry. Since 1985, he has been a senior environmental chemist at the Illinois State Water Survey, which is part of the University of Illinois at Urbana-Champaign. His research has focused on critical problems with urban air pollution and the fate and transport of hazardous air pollutants, such as mercury.

Although he officially retired in 2004, he still works part time at the Water Survey. Dr. Sweet is married to Cynthia (nee Swindle) who also is from Toledo. They reside in Mahomet, Illinois and have two children, Laura, 24, who is currently in graduate school in nursing at Ohio State University and Natalia, 18.
**UT’S CAPITAL CAMPAIGN AND CHEMISTRY**

The University of Toledo is in the initial phase of a major capital campaign to enhance the quality of the university (http://thenmelsson.utoldeo.edu). The major goals of this campaign will directly support students and provide new opportunities for their pursuit of a high-quality education. These goals include:

- An increase in the number of scholarships available to students,
- An increase in the number of endowed faculty chairs and professorships, and
- Technology upgrades for the campus community.

Over the course of the 90-year history of chemistry at UT, the department and generous donors have established endowed funds to support chemistry students and enhance the quality of the chemistry program. Award, scholarship and program enhancement funds have directly or indirectly benefited more than 1,000 chemistry alumni.

As the university moves forward during the capital campaign, donors to the University can designate their contribution to a specific fund in a department where it will have the greatest impact. Most chemistry alumni and friends of the department choose this option and donate directly to the fund of their choice in the chemistry department. Many enhance their contributions even further through matching gift programs through their employers.

Endowed funds in chemistry available for donations are:

- Arthur H. Black Professorship
- Chemistry Progress Fund
- Frontiers in Chemistry Lecture Series
- Undergraduate Research Fund
- Henry R. Kreider Scholarship
- James A. Poure Scholarship
- David R. Hostetler Memorial Scholarship
- William B. Silverman Chemistry Scholarship
- Chemistry Faculty Scholarship
- Chemical and Allied Industries of Northwest Ohio Scholarship
- ACS Student Group
- Arthur H. Black Award in Analytical Chemistry

Thank you to everyone who has made or considered making a contribution to support chemistry students who are working to become the next generation of chemists, teachers and medical professionals. Through your generosity and thoughtfulness, many dreams have been and will be achieved.

---

**RECOGNIZING OUR DONORS**

The chemistry department recognizes and thanks all donors who generously made gifts during the July 1, 2004 to June 30, 2005 fiscal year. Donors are listed alphabetically.

**INDIVIDUAL CONTRIBUTORS**

- Josephine Kreider Auten
- Dr. Amy Smith Barker
- Dr. Norman Barton
- Dr. Fredric Baur Jr.
- Dr. E. Williams Beans
- Dr. Curtis and Maurelyn Black
- Helen Black
- Dr. Randy and Carole Bohn
- Dr. Stephen and Patricia Bollig
- Gregory Bowls
- Dr. Pannee and Rene Burckel
- Glenn Cauns
- Dr. James Case
- Joseph Cotruvo
- Timothy and Bathsheba Flood
- Robert and Sandra Frisch Jr.
- Patrick Gillen
- Drs. Hua Guo and Qian-Yun Zhang
- Roland and Joyce Hight
- Ruth Hultner
- Jane Idoine
- Dr. Charles Johnson
- Jerald and Marceena Katcher
- Dr. Leslie and Ruth Lahti
- Dr. Robert and Carol Oberle
- Maley Jr.
- Jay Martin
- Robert McCracken
- John and Nancy McManus
- Dr. Anthony Melonakos
- Robert and Nancy Mentzen
- Terry Moore
- Mary and Richard Morrison
- Dr. Milton Mozen
- Janice Boden Mueller
- Joseph and Rosemary Nachman
- John Olczak
- Walter Opdycke
- Dr. Richard Pace
- Nina Potente
- Gary Regulska
- Dr. Charles and Susan Ritz
- Dr. James Sander
- Patricia Scharf
- Harold and Charlotte Shaffer
- Dr. Sidney Steele
- Roy and Sheila Stein
- Dr. Robert Taormina
- Dr. Lori Tierney
- William Wiley
- Rev. Linda Zaye
- Dr. Bin Zheng and Lei Feng
- Karen Zolg

---

**INDUSTRIAL AND ORGANIZATION SUPPORTERS**

- Bristol-Myers Squibb Foundation
- Chemical & Allied Industries of Northwest Ohio (CAI-NWO)
- Eli Lilly & Co Foundation
- Georgia-Pacific Corporation
- Monarch Analytical Labs
- Pfizer Inc
- Procter & Gamble Fund
- Toledo Section of the American Chemical Society
DEPARTMENT NEWS

Alan Pinkerton was elected president of the American Crystallographic Association (ACA) for 2007. He will serve as vice-president for 2006. The ACA is a nonprofit, scientific organization of approximately 2,000 scientists, who study the structure of matter at atomic resolution. He also is the immediate past president of the Pittsburgh Diffraction Society.

Jon Kirchhoff was appointed to the American Chemical Society’s Examinations Institute Analytical Chemistry Committee. The committee will develop the ACS standardized examination for analytical chemistry for 2007.

Andy Jorgensen was appointed to the American Chemical Society’s Society Committee of Education for a three-year term. He continues to serve on ACS’s Committee on Community Activities, which plans and coordinates the society’s programs aimed at the public, including National Chemistry Week. Later this year, Andy will lead the committee’s Earth Day activities.

Andy Jorgensen was UT’s nominee for the Council for Advancement and Support of Education and the Carnegie Foundation for the Advancement of Teaching 2005 U.S. Professors of the Year awards program. He was also elected chair of the UT Faculty Senate for the 2005-06 academic year.

Xuefei Huang organized the first Midwest Carbohydrate Symposium on September 30, 2005. The symposium was held at UT and attracted carbohydrate and organic chemists from around the Midwest. Professor Jon Thorson from the University of Wisconsin and Professor David Gin from the University of Illinois gave plenary lectures during the meeting. Topics at the symposium included chemical synthesis, enzymatic synthesis, glycochemistry, and glycobiology and glycoanalysis. The symposium was sponsored by Anatrace Inc, the department of chemistry and the College of Arts and Sciences.

Graduate students, Stacy Gates (PhD student, Lind) and Eric Yearley (PhD student, Pinkerton) gave invited talks at the Pittsburgh Diffraction Society International Meeting in November 2005 at Argonne National Laboratory. Stacy and Eric also shared the 2005 Chung Soo Yoo Award for the best student poster presentation at the conference.

UT-ACS Student Affiliate received their fourth consecutive “Outstanding” ACS Student Affiliate Chapter Award. The award is for the 2004-05 academic year and was accepted at the ACS National Meeting in Atlanta, GA in March. Only 32 of 970 student chapters were designated as “Outstanding” for 2004-05.

In summer 2005, the department hosted 7 Project Seed students. This program is for economically disadvantaged high school students. The American Chemical Society awards funds to match the dollars provided through the grants of UT faculty and other sources, including the local section of the ACS, UT’s Toledo Excel program and an alumni donor. Faculty who hosted students were Max Funk, Xuefei Huang, Cora Lind, Mark Mason, Tim Mueser, Joe Schmidt and Ron Viola. The coordinator was Andy Jorgensen. At the end of the summer, these students joined undergraduate student researchers in presenting their work in a symposium. Earlier this month, the 2006 Project Seed application was submitted to the ACS. If granted, the department will host eight students this summer.

Charlene Hansen, CPS, has been upgraded to administrative secretary I and is completing a year as president of the Glass City Chapter of the International Association of Administrative Professionals. She also received a Professional Development Stipend from The University Women’s Commission to attend the Educational Forum of the International Association of Administrative Professionals in July 2005 in Denver, Colo.

Faculty and Staff Service Awards

The following chemistry faculty and staff were recognized for their service to the university. Max Funk, distinguished university professor, 25 years; Julie Mosher, chemical lab supervisor II, 20 years; Jon Kirchhoff, professor and associate chair, 15 years; Pannee Burkel (MS ’89, Edwards; PhD ’01, Pinkerton), instrumentation scientist, 15 years; Charlene Hansen, administrative secretary I, 15 years; Elizabeth Jourova, senior research associate, 5 years.

Send Us Your News

We love to hear news about our alumni and friends and share it with others in the newsletter. Please send us updates on your address, career and family. Information can also be sent via e-mail at utchem@utoledo.edu. Also, check out the department’s website at www.chem.utoledo.edu
LETTER
TO THE EDITORS

Dear Colleagues,

It is not often in one’s life that you run across a giant of a man, but when you do, their memory resides with you for a lifetime. That is the case of Professor Black. I was a chemistry major from 1963 to 1967 and Professor Black was my favorite professor. He was exacting, professional, kind, accessible, friendly, and got the information through to his students. I will be forever grateful for the knowledge he imparted to me.

For these reasons, I am happy to include a check with this letter, which is a third payment to help support his professorship. I would also like to encourage all past chemistry students from the University of Toledo to help support this cause. In doing so, we can give thanks to the University, and specifically the chemistry department and those of like quality and integrity as Professor Black, for the knowledge that was given to us. This knowledge enabled each and every one of us to attain our goals and become successful in whatever endeavors we each pursued.

I would also like to encourage those who knew Professor Black to send in their memories as requested in the mailing we recently received.

The Arthur H. Black Professorship in Chemistry is truly a goal that needs to be realized. In such a fragmented and polarized society, on this we all can agree.

Sincerely,

Robert E. Maley D.D.S.
Toledo, Ohio

ALUMNI NEWS

WEDDINGS:
Chau (Victoria) Pham BS '96, (MS '98, Funk) married Hien Tran on December 31, 2005 in San Mateo, Calif.

Amber Bouteufuer (MS '05, Funk) married Aaron Peariso on August 20, 2004 in Monroe, Mich.

BIRTHS:
Abigail Kovalcik was born on January 20, 2006 to Kasey (PhD '01, Karchhoff) and Cheryl Kovalcik.

Katharina Louise was born to Karsten (MS '93, Fry) and Nathalie Mielke on October 10, 2005

Catherine (BA '95, MS '97, PhD '00, Flowers) and Steve Summers welcomed Claire to their family on April 10, 2004 with Baby No. 2 on the way in May 2006

Amy Smith (BA '94, PhD '99, Kirchhoff) and Eric Barker announced the arrival of Ryan Joseph on November 30, 2005. Ryan weighed in at 9 lb. 3 oz. and was 21.25 inches long.

Yuqing Jing (MS '05, Huang) and Jianfeng Wang welcomed Daniel Wang on April 17, 2005. He weighed 6 lb 7 oz. and was 20 inches long.

Amber (MS '05, Funk) and Aaron Peariso welcomed Marte on July 11, 2005.

CAREER NEWS:
Nina McClelland (BS '51, MS '63, Hon. PhD '03) received the 2005 George S. Wham Leadership Medal from the American National Standards Institute (ANSI). The George S. Wham Leadership Medal “honors an individual who has made outstanding contributions to the voluntary standardization community and provided long-term direction and visionary qualities in support of the ANSI Federation.” Dr. McClelland received the award at a banquet in Washington, D.C. on October 13, 2005.

Nina McClelland (BS '51, MS '63, Hon. PhD '03) was appointed chair of the International Activities Committee of the American Chemical Society.

Gordon Mather (BS '59) retired on December 31, 2004 from private practice in internal medicine in Toledo. Dr. Mather writes
he "enjoyed his time in the UT chemistry department, where he received excellent preparation for a 40 plus year career in medicine."

Charles Ritz (BS ’69) is professor of mechanical engineering at California State Polytechnic University at Pomona. His specialty is physical chemistry and molecular structure mechanics. He received his PhD from the University of Michigan in 1974.

Gillian Robert Baldo (MS ’81, Burow) is a chemist with the U.S. Food and Drug Administration and lives in Manassas, Va. She received her PhD from the University of South Florida.

Brenda Sheppard Zimmer (BS ’87) has worked for the past 15 years as an analytical chemist in the Forensic Chemistry Center at the U.S. Food and Drug Administration in Cincinnati, Ohio. Recently, she assumed the role of public affairs specialist, also with the FDA. In her spare time, Brenda teaches at Raymond Walters College as an adjunct faculty member in chemistry. She received her PhD in 1991 from the University of Cincinnati under the direction of Joe Caruso.

Kregg Brooks (BS, Honors, ’92) recently accepted a position as an attorney associate with Bromberg and Sunstein LLP in Boston, Mass.

Beth Kroa (PhD ’94, Funk), husband David and son James, 14, live in Fleetwood, Penn. where Beth is teaching high school chemistry. She recently added department chair and football cheerleading coaching to her responsibilities.

Anthony Pacifico (MS ’96, Hudson) accepted a position as a scientist at Science Applications International Corporation (SAIC) in Frederick, Md. SAIC is a Fortune 500 company and the largest employee owned research and engineering firm in the United States. Anthony’s work focuses on new and innovative approaches to cancer research through their Congressionally Directed Medical Research Program.

Chau (Victoria) Pham (BS ’96, MS ’98, Funk) is working at Genentech in South San Francisco, Calif.

Brad Shotwell (BS, Honors ’98) accepted a position in spring 2005 in the oncology group at GlaxoSmithKline in the Research Triangle Park in North Carolina. Prior to moving to industry, Brad received his PhD in John Wood’s group at Yale University and was a postdoctoral fellow with Bill Roush at the University of Michigan. He and his wife Jeannie, a UT pharmacy graduate, enjoy being out of school and recently bought their first home.

Miki Plesescu (MS ’99, Kirchhoff) was promoted in 2005 to research investigator in the radiochemistry/DMPK group at Millennium Pharmaceuticals in Cambridge, Mass.

Camille Jones (PhD ’00, Edwards) moved from the National Institute of Standards and Technology Center for Neutron Research to become an assistant professor of chemistry at Hamilton College in Clinton, NY.

Dana Wise (BS, Honors ’00) received her PhD in analytical chemistry in May 2005 from the University of Texas at Austin under the direction of Jason Shear. Her dissertation was titled “Tracking Neuronal Content Using Capillary Electrophoresis with Multiphoton Excitation of Fluorescence.” This investigation involved studying the chemical contents of the two different biological clocks in the brain responsible for the sleep and wake cycles. Dana has moved to the department of pharmacology and toxicology at the University of Arizona where she is working in the laboratory of Terrence Monks.

Duane Wilson (BS ’02) is a fourth year graduate student in chemistry at Ohio State University working toward his PhD with Sheldon Shore.

Brandon Collins (MS ’03, Mueser) has accepted a position with Boehringer Ingelheim in Connecticut.

Nari Talaty (MS ’03, Giolando) has received significant national attention for his PhD research in Graham Cooks’ laboratory at Purdue University. Nari worked with a team of scientists to help develop fast and reliable mass spectral methods for the detection of explosives and hazardous materials such as chemical and biological agents. Two recent papers on this work have appeared in the journal, Analytical Chemistry.

Nina Potente (BS ’05) accepted a position as a chemist and lab and safety manager with SGS North America Minerals Division in Detroit, Mich. As part of her job responsibilities, she tests the byproducts of coal and coke for Detroit Edison.

Morgan Sammons (BA ’05), Kevin Perzynski (BS ’04) and Qinfeng “Phoenix” Liu (PhD ’05, Kirchhoff) have taken Vanderbilt University by storm this past fall. Morgan is in the PhD program in biomedical sciences, Kevin is in the PhD program in chemistry, and Phoenix is a postdoctoral associate in the biochemistry department working in the lab of Daniel Liebler.

Kevin J. Perzynski (BS ’04) was recognized as the Outstanding Student in Chemistry for 2004-05 at the College of Arts and Sciences Honors Awards and Recognition Ceremony in May 2005.
DEPARTMENT “SPIRIT WEAR” AVAILABLE FOR ALUMNI

In 2005, the department began offering 250 mL UT beaker mugs with a UT chemistry logo on the mug. The cost is $8 per mug. Because of their popularity, we have expanded our items to include short sleeve T-shirts, long sleeve T-shirts, polo shirts, denim shirts and hooded sweatshirts.

Each shirt has the UT logo, “The University of Toledo”, embroidered along with “Department of Chemistry” (see photo) or “Department of Chemistry Alumni”.

The Jerzee denim shirt, medium stone, is shown in the photo. The Lee denim shirts are a heavier shirt than the Jerzee.

PRICES ARE AS FOLLOWS:

<table>
<thead>
<tr>
<th>Item</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jerzee blue denim shirt</td>
<td>$20</td>
</tr>
<tr>
<td>Jerzee medium stone denim</td>
<td>$20</td>
</tr>
<tr>
<td>Lee ladies three-quarters sleeve</td>
<td>$20</td>
</tr>
<tr>
<td>Lee men's blue denim</td>
<td>$30</td>
</tr>
<tr>
<td>Lee men's medium stone</td>
<td>$30</td>
</tr>
<tr>
<td>Short-sleeved tees navy or gold</td>
<td>$10</td>
</tr>
<tr>
<td>Long-sleeved tees navy or gold</td>
<td>$15</td>
</tr>
</tbody>
</table>

Men's short polo navy or butter ................................ $25
Ladies short polo navy or butter ................................ $25
Hoodie sweatshirt navy or gold ......................... $30

Add $2 for XXL or XXXL for each item
Add $3 for shipping and handling for each order

Make checks payable to
UT-Chemistry and mail to
The University of Toledo, Department of Chemistry MS 602, 2801 W.
Bancroft St., Toledo, OH 43606-3390.

For additional information contact
Charlene Hansen at 419-530-7902 or charlene.hansen@utoledo.edu

THE UNIVERSITY OF
TOLEDO