CHEMISTRY NEWS

A PUBLICATION OF THE UNIVERSITY OF TOLEDO DEPARTMENT OF CHEMISTRY • TOLEDO, OH 43606
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INSIDE THIS ISSUE

The View From the Chair

Ron Viola

Greetings to our alumni and friends of the Chemistry Department. This has been an interesting year – one of growth and change, both for the department and for The University of Toledo. Continuing financial concerns and decreased state funding necessitated a round of budget cuts that impacted all academic departments, including chemistry. Fortunately, we were able to retain all of our staff positions and the talented people who ably fill these positions.

Because of these cuts the department did not hire any new tenure-track faculty during this past year. We were able to convert Lisa Zhurova from a temporary instructor into a more permanent lecturer position. Lisa has been the primary instructor in the Elementary Chemistry course that brings students up to speed so they can tackle the general chemistry sequence. She manages to accomplish this task with hundreds of students each semester. We have also retained Kristi Mock for another year to continue to introduce the wonderful world of chemistry to nursing students. There were a few departures. Shannon Li has accepted a tenure-track position at The University of Michigan-Dearborn campus and we all wish her continued success in her career. One particularly sad change was the "retirement" of my good friend and colleague Max Funk (see his story on page 2. After over 30 years as a great teacher, researcher and department member, Max has decided to start a new career as a program officer at the National Science Foundation. Our loss is certainly their gain and Max has already started to make a positive impact on NSF programs. Despite these changes and financial issues, our faculty continues to make a major contribution to the teaching mission at the university, teaching chemistry to nearly 5,000 undergraduates each year, to students majoring in a wide range of science, engineering and other disciplines. The number of chemistry majors continues to grow, especially in our biochemistry degree programs. Our undergraduate students continue to make significant contributions to our research programs, with a total of 53 students carrying out independent research projects in 17 different laboratories during this past year. The department had 13 ACS certified B.S. graduates and an additional 13 B.A. graduates received their degrees during the past academic year. Our graduate program is also continuing its growth with 23 students joining our program and accepted into research groups during the 2012-13 academic year and 16 new graduate students joining our department this fall semester. These large incoming classes, selected from the best applicants from around the world, have begun to translate into an increased number of graduate degrees awarded. For the past academic year 14 M.S. and four Ph.D. graduates successfully defended their theses and dissertations and have moved on to a range of different career options. An additional six Ph.D. graduates completed their degree requirements during this past summer.

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The View From the Chair *continued from page 1*

Our faculty remains highly research productive, publishing groundbreaking research in top peer-reviewed journals, presenting our most recent research findings at regional, national and international meetings, and receiving new research grants even in this very competitive funding environment. The number of research presentations and publications remains too numerous to list but can be found on our departmental website (www.utoledo.edu/nsm/chemistry).

A listing of the most recently funded research projects is provided on page 5 and includes newly funded projects from the National Institutes of Health, NASA and the Air Force. The number of new grants and funded projects obtained in this highly competitive funding climate is a continuing testament to the creativity and the innovative research ideas being generated by our faculty and carried out by our students.

As always, please keep us informed of any news that you wish to share with us and your fellow alumni, and certainly let us know if you are planning to be in the area. We would be disappointed if you didn't stop by to say hello. You are both the history and the future of our department and we want to stay connected.

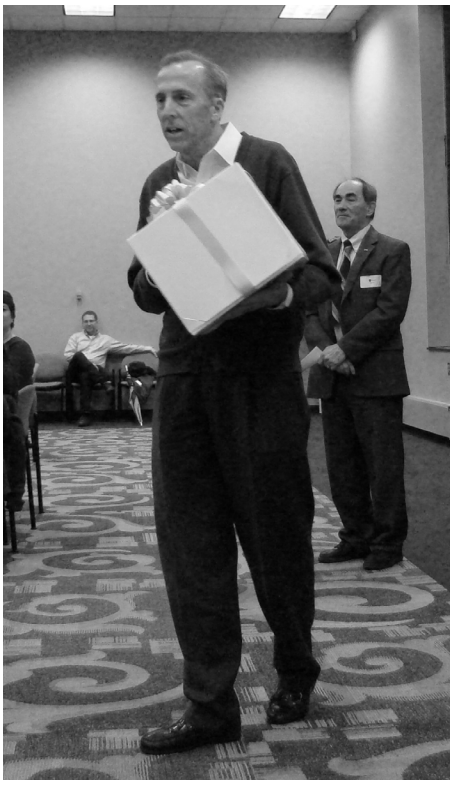
Max Funk Retirement

From 1978 to 2013 **Max Funk** served the Department of Chemistry with distinction. In June 2013, Max retired from The University of Toledo to begin a new chapter in his career as Program Director for the National Science Foundation. He works in the Chemistry of Life Processes program in the Directorate of Mathematical and Physical Sciences, which supports chemistry-based research at the chemistry-biology interface.

At The University of Toledo Max was involved in all aspects of the university community. He was a dedicated teacher, excellent researcher and one of the most respected faculty members, known throughout campus for his dedicated and tireless efforts to move the university forward. He contributed his enormous energy to not only training undergraduate and graduate students in organic chemistry and biochemistry, but also served in many leadership roles across campus for faculty governance, academic oversight, strategic planning, building construction, and as advisory to several of UT's athletic teams. His commitment to excellence in all aspects of his faculty position was recognized through several awards, including UT's first NIH Research Career Development Award (1983-88), Sigma Xi Outstanding Researcher (1987), The University of Toledo Outstanding Researcher (1990), Distinguished University Professor (1990), Honors Professor of the Year (2004) and the Excellence in Professional Service Award from the College of Natural Sciences and Mathematics (2012).

Max earned a Bachelor of Science degree in chemistry from Penn State University in 1971, a Ph.D. degree in Organic Chemistry from Duke University in 1975, and then completed his formal training as a Postdoctoral Research Associate at The University of Chicago before coming to UT in 1978, rising through the ranks to Professor of Chemistry in 1986. He also held faculty appointments in the Departments of Medicinal and Biological Chemistry, and Biochemistry and Cancer Biology. His research focused on aspects of bioorganic chemistry and biochemistry, including peroxide chemistry, mechanistic enzymology, protein chemistry, and lipid metabolism. Within this framework Max was a leader in studies of the enzyme lipoxygenase. Lipoxygenase catalyzes the peroxidation of an all cis-1,4-pentadiene system in fatty acids. The importance of this metabolic pathway is still being unraveled. As an example of its importance, the lipoxygenase catalyzed peroxidation of arachidonic acid is the inaugural step in the biosynthesis of leukotrienes, potent mediators of numerous physiological processes.

The department wishes Max the best in his "retirement" and thanks him for his dedicated service to chemistry and The University of Toledo. Anyone wishing to send Max retirement wishes can contact him at mfunk@nsf.gov.



Project SEED Celebrates 10 Years

Summer 2013 marked the tenth consecutive year the chemistry department hosted Project SEED students in the laboratories of chemistry faculty. Project SEED is a program sponsored in part by the American Chemical Society to provide opportunities to economically disadvantaged high school students to become involved in scientific research. An additional goal of the program is to allow students to do chemistry without having to work a summer job. Over 10 years at The University of Toledo, 55 students have received over $140,000 in stipends. **Andy Jorgensen** has served as the program coordinator for the department.

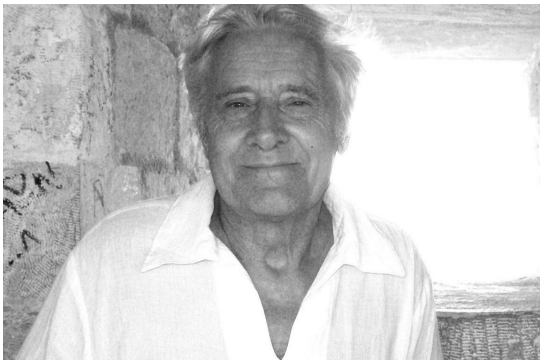
In celebration of this milestone, the Toledo Local Section of the American Chemical Society sponsored an evening symposium and reception in Bowman-Oddy Laboratories on August 15, 2013 for the community to hear about the research conducted by the students: Deborah Okeke (**Ron Viola**, *Canavan Disease*), Mikayla Becker (**Jianglong Zhu**, *Synthesis of S-linked Trisaccharide Sub-unit of Urdamycin A*), Tashiana Carnes (**Jared Anderson**, *Solid Phase Micro-extraction and Making a Fiber*), Shival Sinha (**Dragan Isailovic**, *The Effect of Cycloheximide on Saccharomyces Cerevisiae Type II*), Pablo Alvarez (**Cora Lind-Kovacs**, *Crystallization in the A2M3O12 Family of Negative Thermal Expansion Materials*), and Emmanuel Fevecque (**Wendell Griffith**, *Sequencing Carp Hemoglobin: A Mass Spectrometry Approach*). The student's advisor and talk title are given in the parentheses. Congratulations on a job well done by these young scientists!

Undergraduate Research at The University of Toledo

Will Cole

A long standing tradition at The University of Toledo Department of Chemistry is providing undergraduate students with training in the research lab. Over the years numerous students have performed research at a high level resulting in fellowships, research papers at professional meetings and peer-reviewed publications in scientific journals. In 2012-2013, 53 undergraduate students participated in research projects in chemistry laboratories with full-time faculty members. One current researcher extraordinaire is William "Will" Cole, who has worked in the lab of **Jared Anderson** for the past 2 years. Will's work has focused on developing and characterizing the analytical performance of novel ionic liquids for use as sorbent coatings on solid phase microextraction fibers. He is also working to develop a novel ionic liquid-based enantioselective catalyst. During his research experience Will has published 5 papers and has 1 more "in press" and 2 "in preparation". He has also presented his results at scientific meetings. Because of his excellent record he spent Summer 2013 as a co-op at Genentech, Inc. in California working with Dr. Yi Yang. He worked on developing a novel assay to determine the carbonyl content of a protein sample. During the short summer months he took the project from the idea stage through to a complete product. Will's work is an example of the excellent training and opportunities afforded to our undergraduates.

Former Faculty Spotlight – Bodo Diehn Celebrating 80 Years!



Congratulations to Bodo Diehn who will celebrate his 80th birthday next June. Dr. Diehn was a faculty member at The University of Toledo from 1966 to 1980, rising through the ranks to Associate Professor (1969) and Professor (1975). He was an outstanding teacher of chemistry and researcher in the field of biophysical chemistry where he focused on the effect of environmental agents on the visual systems of simple organisms. His research contributions included over 40 published manuscripts including high profile papers in the journals *Nature, Science*, and the *Journal of the American Chemical Society*. For his efforts at The University of Toledo he was nominated for the Outstanding Teaching Award in 1977 and was the first Sigma Xi Outstanding Researcher at the university in 1978. He was also an adjunct faculty member at the Medical College of Ohio and an adjunct professor of zoology at Michigan State University in East Lansing.

Dr. Diehn also received the first Congressional Fellowship of the American Chemical Society, serving on the staff of the U.S. House Subcommittee on Consumer Protection and Finance and the U.S. Senate Committee on Aeronautical and Space Sciences from 1975 to 1976. In 1980 he left The University of Toledo to become director of the newly established Legislative Science Office for the Michigan Legislature. He also spent time at The University of Michigan establishing the Michigan Research Corporation to aid faculty

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Former Faculty Spotlight – Bodo Diehn Celebrating 80 Years! *continued from page 3*

developing research inventions for the marketplace. In the mid 1980's he moved to Arizona and served in numerous capacities in government, environmental protection and regulation, and business. He is an avid pilot, triathlete and outdoorsman.

Dr. Diehn is originally from Germany and initially studied at The University of Hamburg for his undergraduate degree. He received his Ph.D. as a Fulbright Scholar at The University of Kansas in 1964, working with Nobel Laureate Frank Sherwood "Sherry" Rowland followed by postdoctoral training at The University of Arizona from 1964 to 1966. He retired in 2008 from the Arizona Department of Environmental Quality and currently resides in Arizona.

Department Highlights

Lambda Sigma National Honor Society won the "Most Improved Chapter" in 2012 and has been an "Honor Chapter" for two years in a row. This is a first in the history of UT. The UT chapter also hosted a national conference in September 2013. **Jim Zubricky** is the advisor.

Jim Zubricky was selected to be part of a faculty cohort group to apply the flipped classroom pedagogy to college level classes. He has adapted Chemistry 1230 (General Chemistry I) from its traditional format to be taught using the Apple iPad as the device that helps deliver materials to students. He has also been working on an iPad/e-text version of the seminal chemistry textbook for nursing students *General, Organic, and Biological Chemistry* with Professor Emerita Karen Timberlake of Los Angeles Valley College which will be released during spring 2014.

Xiaohua (Shannon) Li, a visiting assistant professor from 2010-2013, accepted a tenure-track assistant professor position in the Department of Natural Sciences at The University of Michigan-Dearborn in the fall of 2013.

Xiche Hu won an iPad Mini at The University of Toledo Federal Credit Union's 49th Annual Meeting in May 2013.

Ashley Teow was recognized in C&E News as an Ashland Scholar. Ashley worked as a Project SEED student in 2012 under **Jared Anderson** while attending Sylvania Southview High School. Her paper was titled *The Use of Head-space Solid-Phase Microextraction with On-Fiber Derivatization Coupled to Gas Chromatography to Improve the Chromatographic Resolution of Chiral Compounds*. She is attending UT as a chemistry major.

Jon Kirchhoff stepped down on June 30, 2013 as Associate Chair to spend more time in the classroom and research laboratory. Many thanks to Jon for his dedication to the department. **Cora Lind-Kovacs** replaces him.

Dr. Daniel Berger, professor from Bluffton University, is spending the fall 2013 semester on sabbatical working with **Andy Jorgensen** on climate change education.

Mechanism of inhibition of Mycobacterium tuberculosis antigen 85 by ebselen is the title of a paper co-authored by Lorenza Favrot (Ph.D. student, Ronning), Anna E. Grzegorzewicz, Daniel H. Lajiness (Ph.D. '11, Ronning), Rachel K. Marvin (Ph.D. student, Isailovic), Julie Boucau (Ph.D., '08, Ronning), **Dragan Isailovic**, Mary Jackson, and **Donald R. Ronning** that will appear in *Nature Communications*. The World Health Organization estimates that 1.4 million people died in 2011 from tuberculosis. Many of those deaths were from drug resistant strains of the bacterium that causes TB. The paper describes studies characterizing the mechanism of action of an anti-tuberculosis compound called ebselen. This mechanism opens a path for new TB treatments that can avoid the development of drug resistant strains.

GRANT$$

External Grant Awards

Don Ronning and **Steve Sucheck** received a grant from NIH in the amount of $1,818,750, which goes through 2018, for their project titled *Understanding trehalose synthesis and utilization in mycobacteria.*

Don Ronning, Tim Mueser, Leif Hanson and Connie Schall (Chem. Eng.) received a grant from NASA in the amount of $200,000. The funds are to support protein crystallization experiments to be performed on the International Space Station. The samples will be launched on SpaceX 4 in summer of 2014 and the returning protein crystals will be used for neutron diffraction studies to be performed at either Oak Ridge or Los Alamos National Labs. These structures will offer new information for the development of therapies for treating drug-resistant bacterial infections.

Dragan Isailovic is a co-PI on a grant from MARS, Inc., *Mass Spectrometry Studies of Lipid Oxidation in Commercial Products*, in the amount of $30,000 through December 14, 2013 and was co-PI on an Air Force Office of Scientific Research grant, *Salivary Biomarkers of Fatigue*. The amount awarded was approximately $1,150,000 through 2016.

University Research Grants Funded for 2012-2013

DeARCE-Koch Award - **Steve Sucheck**
Design and Synthesis of Mechanism-Based Inhibitors Targeting Mycobacterium tuberculosis GlgE,
Amount awarded: $25,000

Interdisciplinary Research Initiation Award – Marcia McInerny (PI), **Steve Sucheck**, Katherine Wall, Anthony Quinn (co-PI's), *Use of a Bioconjugate Vaccine to Alter Autoimmunity in Type 1 Diabetes*,
Amount awarded: $40,000

University Summer Undergraduate Research and Creative Activity Awards Program (USRCAP)

Omar Badawi (**Jared Anderson**),
Synthesis and Evaluation of Magnetic Ionic Liquid Extraction Solvents in Dispersive Liquid-Liquid Microextraction,
Amount awarded: $2,750

Marcus Cluse (**Steve Sucheck**),
Cyclopeptide Alkaloid Synthesis,
Amount awarded: $3,000

Joshua Staffeld (**Kana Yamamoto**),
Development of a Metal-Free, Aerobic Oxidation of Azolines to Azoles,
Amount Awarded: $3,000

First Year Summer Research Experience (FYSRE) Awards

James Dunaway (**Jianglong Zhu**),
Total Synthesis of Antitumor Antibiotic Derhodinosylurdamycin A,
Amount awarded: $3,250

Samuel Johnson (**Steve Sucheck**), The Synthesis and Application of a Biotin-conjugated Ebselen Probe,
Amount awarded: $3,000

Rachel Opperman (**Peter Andreana**),
The Fermentation, Isolation, and Purification of Microbes and Polysaccharides,
Amount awarded: $2,850

Sierra Parker (**Kana Yamamoto)**,
Metal-Free, Aerobic Dehydrogenation of 1,3,5-Pyrazolines, 1,4-Dihydropyridines, and 3,4-Dihydropyrimidin-2(1H)-ones,
Amount awarded: $3,000

Susan Salari (**Dragan Isailovic**),
A Comparison of Lipid A Structures Present in LPS of Burkholderia pseudomallei and Burkholderia thailandensi,
Amount awarded: $3,000

Awards/Achievements

Jim Zubricky, Lecturer, was named by the Provost's Office as one of the September Shining Stars at UT. This award, which was given by the Provost's Office, was based on accomplishments related to his outstanding efforts on the Apple iPad project through the Honors College. He is also co-chairing the committee preparing the 2013 ACS Exam in General, Organic, and Biological Chemistry. The exam was released in October 2013. **Dan Finnen** (MS '90, Funk/Ph.D. '98, Pinkerton) is also on the committee.

Andy Jorgensen was appointed as a Visiting Professor for the University Studies Abroad Consortium (USAC) program in Luneberg, Germany for spring 2014 to teach chemistry and climate change courses to American students who are there studying the German language. He also received a Senior Lecture Award from the Environmental Chemistry Division at the ACS 38th Northeast Regional Meeting, Rochester, NY in September 2013, and was appointed chair of the American Chemical Society's Committee on Education for 2013. He also served on the Advisory Board of the American Chemical Society's National Association for Chemistry Teachers, a new organization for those who teach in K-12 classrooms.

The university reinstituted the **Service Recognition Awards program**. Several department personnel were recognized. Those recognized for five years of service were Jared Anderson, Terry Bigioni, Youming Cao, Claire Cohen, Wendell Griffith, Anthony Kaminski, Cora Lind-Kovacs, Don Ronning, Steve Sucheck and Jim Zubricky; 10 years of service, Stephanie Kaetzel, Edith Kippenhan, Tim Mueser and Ron Viola; Charles Davis, Eric Findsen, Dean Giolando, Charlene Hansen, Tom Kina, Jon Kirchhoff and Kristin Kirschbaum completed 20 years of service; 25 year awardees were Pannee Burckel, Julie Mosher, Alan Pinkerton and Pam Samples, and Max Funk with 30 years of service to the university and department.

9th Midwest Carbohydrate and Glycobiology Symposium

The University of Toledo hosted the 9th Midwest Carbohydrate and Glycobiology Symposium (MCGS) on October 11-12, 2013. Over 70 scientists from as far away as Massachusetts attended the symposium, which included topics such as carbohydrate synthesis, glycobiology, glycotherapeutics, glycomics, carbohydrate engineering, glyconanotechnology, and carbohydrates as renewable resources. UT chemistry professors **Jianglong Zhu**, **Peter Andreana**, and **Steve Sucheck** organized this year's symposium.

Recognizing that many scientists, including students, faculty, and industrial researchers in the Midwest have a strong interest in understanding carbohydrate chemistry, biology, and function, Professor Xuefei Huang organized the first symposium in 2005 at The University of Toledo. The fundamental understanding of carbohydrates and their function is essential to several fields that include basic research, bio/nanotechnology, human health and disease processes and renewable resources. The symposium's return to UT was highlighted by student and faculty presentations, and a special carbohydrate synthesis by **Jim Zubricky** who brewed two special edition beers for all the carbohydrate chemists to enjoy at the welcoming reception.

The symposium would not have been possible without generous donations from the following companies and individuals: Heidolph, P212121, Quanta Biodesign Limited, Ash Stevens, Carl and Mary Johnson Family Foundation, and The University of Toledo.

Awards and Scholarships

The following awards and scholarships were presented at the Spring 2013 Honors Tea:

Alfred F. Foster Health Science Award
Audrey Miklovic (Fall) and
Paula Zeren (Spring)

American Chemical Society
Division of Organic Chemistry Award
David Long

American Chemical Society
Division of Inorganic Chemistry Award
Danielle Samblanet

Analytical Chemistry Award
Omar Badawi

American Institute of Chemists Foundation Award
Danielle Samblanet

Arthur H. Black Award for
Analytical Chemistry
Danielle Samblanet and
William Cole

Biochemistry Award
Nathaniel Westphal

CRC Press Freshman Chemistry
Achievement Award
Corissa Piatka and Alisha Sangal

Dean's Medal for Outstanding Graduating Senior
Waqar Arif

Inorganic Chemistry Award
Michael Mayer

Organic Chemistry Award
Sudipa Biswas and Clayton Rice

Physical Chemistry Award
Samantha Lear

Arthur H. and Virginia R. Black Merit Scholarship
William Cole

The Chemical and Allied Industries of Northwest
Ohio (CAI-NWO) Scholarship
Christiana Onyskiw

Andrew Dollimore Award in Chemisty
RaeLynne MacBeth

The Faculty Scholarship/Jack Kay Scholar
Yetunde Badmus

David R. Hostetler Memorial Scholarship
Nathan Diemler

Henry R. Kreider Scholarship in Chemistry
Omar Badawi, Marcus Cluse, Moung Soo Choi

James A. Poure Scholarship in Chemistry
Brandy Porkarski

CV Wolfe Scholarship in Natural Sciences
Jonathan Tomko

William B. Silverman Scholarship
Emily Rady

Outstanding Teaching Assistant
Lucille Pinault (M.S., '13, **Ronning**)

Outstanding Graduate Student Research Paper
of the Year
Hem Raj Khatri (Ph.D. student, **Zhu)**
Synthesis of Complex ortho-Allyliodarenes by Employing the Reductive Iodonio-Claisen Rearrangement, Chem. Eur. J. 2012, 18, 12232-12236.

Outstanding First Year Graduate Student
Kevin Kawchak (Ph.D. student, **Yamamoto**)

ALUMNI NEWS

Births

Ayana Arachea Johnson was born at 7:09 a.m. on October 6, 2013 to Jon and **Buenafe Arachea** (Ph.D. '11, Viola) Johnson. She weighed 7 lbs., 4 oz. and was 20 inches.

Margaux Louise Collins was born on August 1, 2013 to **Virginie Casarotto-Collins** (Ph.D. '08, Hudson) and **Jonathan Collins** (M.S. '09, Ronning), at 3:13 a.m. She was 19 inches long and weighed 6.8 lbs.

Dragan and **Slavica Isailovic** welcomed Nikola on December 6, 2012. He weighed in at 8.8 lbs. and was 21.5 inches long. His older brother and sister are very happy.

Weddings

Jessica Rachid (office student worker 2007-2011) married Craig Friedberg on August 24, 2013 in Cleveland. Both graduated in 2011 from the College of Engineering and are residing in Illinois.

Career Updates

Manish Joshi (Ph.D. '13, Anderson) accepted a scientist position at Ashland, Inc in New Jersey.

Yunjing Meng (Ph.D. '11, Anderson) is working as a Quality Control Scientist at Chantilly Biopharma in Virginia

Qichao Zhao (Ph.D. '11, Anderson) took a position as scientist at the Changjiang Water Resources Commission in Wuhan, China.

John Beck (Ph.D. '11, Schmidt) is a Chemistry Lecturer at Lake Michigan College.

Yao Cong (Ph.D. '10, Anderson) accepted a scientist position at Abbott Pharmacueticals in North Chicago, IL.

Virginie Casarotto-Collins (Ph.D. '08, Hudson) is working as a Clinical Data Manager for QUINTILES in France, an American company specializing in clinical trials that works with pharmaceutical companies.

Jhindan Mukherjee (Ph.D. '08, Kirchhoff) accepted a position as an Analytical Chemist at Michigan Nanotechnology Institute for Medical and Biomedical Sciences. She will work on analysis and separation of small molecules.

Ken Boone (M.S. '08, Findsen) is a Quality Control Chemist at Thermalin Diabetes, LLC in Cleveland/Akron, OH

Claudine Arm (M.S. '06, Kirchhoff) is an Inside Applications Engineer with Laird Technologies in Cleveland. She is working on her MBA at The University of Akron while juggling two toddlers, Arabella and Logan.

Ruel Nacario (Ph.D. '05, Hudson) is a Senior Scientist with Nitto Denko Technical Corporation in California.

Steve Tomanicek (Ph.D. '05, Mueser) is a Postdoctoral Researcher at Oak Ridge National Laboratories and was featured in an article in the Knox News Sentinel in Knoxville, TN. The team Steve is working with has identified two genes in microorganisms that are responsible for an environmental process that converts mercury into its most toxic form – methylmercury. ORNL is becoming a major center for mercury research and the researchers are working on finding the best solutions to the mercury environmental problem.

Catherine Summers (Ph.D. '00, Flowers) was the event chairman for the 36th West Side Montessori School's Decked Out Derby Party which hosted southern fare, games, auctions and more, entertaining 185 supporters. The event raised about $95,000.

Dana Wise (B.S. Honors, '00, Kirchhoff) began working at Janseen Pharmaceutical in Titusville, NJ, which is part of Johnson & Johnson, as a Sr. Medical Writer in the neuroscience department. She has written materials on depression, biopolar disorder, schizophrenia, and migraine for the company's neuroscience products.

Amy R. (Smith) Barker (Ph.D. '99, Kirchhoff) was promoted to Quality Advisor in the Global Quality Laboratories of Eli Lilly and Company. Her primary responsibilities include global technical stewardship of the analytical methods for small molecule marketed products.

Beth Kroa (Ph.D. '94, Funk) is an Assistant Professor and Chair of Physical Sciences at Bethel College in Mishawaka, IN.

Scott Uram, son of **Richard** (M.S. '90 and Ph.D. '94, Edwards) and Cathy, was the recipient of the 2013-14 Alumni Association Legacy Scholarship. He is a senior in the College of Pharmacy, carries a 3.87 GPA, member of the Blue Key National Honor Society and a member of Sigma Phi Epsilon.

Dan Finnen (M.S. '90, Funk; Ph.D, '98 Pinkerton) is co-chairing, with Jim Zubricky, the 2013 version of the ACS Exam committee in General, Organic, and Biological Chemistry which was released in October 2013.

Condolences

Dr. Willard Bright, Sr. (B.S. '36, M.S. '38) passed away on July 13, 2013 at the age of 99 in Vero Beach, FL. Dr. Bright was an accomplished scientist and businessman. Most notably, he was founder and Chairman (1982-1996) of ZOLL Medical Corporation, serving on the Board of Directors until 2006.

After leaving The University of Toledo, Dr. Bright received his Ph.D. in chemistry at Harvard University. His first job was for the Kendall Company in the research and development department where he invented and developed a number of products that became a significant fraction of the company's business. After 10 years at Kendall he worked 18 more years for Lever Brothers Company, Reynolds Industries (Reynolds Tobacco) and the Warner-Lambert Company as an officer and/or member of the Board.

He then returned to the Kendall Company in 1970 as President and Chief Executive Officer, "retiring" after merger of Kendall with Colgate-Palmolive. He was also

President of Curtiss-Wright Corporation for a period and served as President and CEO of Boehringer Mannheim Corporation, which was the holding company responsible for Boehringer's U.S. activities.

Dr. Bright served in many other capacities with The First National Bank of Boston (now The Bank of Boston), Liberty Mutual Insurance Company, City Stores, Colgate-Palmolive, Dorr-Oliver, and the Lynch Corporation. He also served as President of the Industrial Research Institute, a director of the National Association of Manufacturers and as an advisor to the Secretary of Commerce and the Commissioner of Patents of the United States.

In 2007 he was named a Distinguished Graduate of the Department of Chemistry and was a lifetime member of the UT Alumni Association. Dr. Bright was a generous benefactor to the university, providing funds to establish The Willard Bright Professorship in Chemistry in 2005 and the W.M. Bright Science Literature Fund in 1982.

We acknowledge the Cox Gifford Seawinds Funeral Home in Vero Beach, FL for information used in this note.

Dr. Jack Kay, chairman of the department 1966-68, passed away on February 13, 2013 in Pennsylvania. After serving at UT, he went to Drexel University and served as chairman there for 16 years.

Events/Activities

The Departments of Chemistry and Medicinal and Biological Chemistry hosted Professor William Rousch as the 2013 Frontiers in Chemistry Lecturer. His presentation entitled *Development of Proof-of-Concept Chemical Probes Targeting Novel Biological Targets* was given to an audience of 300 students and faculty on October 4, 2013. Professor Rousch is Professor and Executive Director of Medicinal Chemistry, and Associate Dean of the Kellogg Graduate School at the Scripps Research Institute in Jupiter, Florida.

Professor Rousch is well known for his research in synthetic organic chemistry, including the stereocontrolled synthesis of complex natural products, and the development of new synthetic reactions and methodology. More recently his research efforts are at the chemical biology and medicinal chemistry interface focusing on the development of inhibitors of kinases, inhibitors and activators of nuclear receptors, and small molecule inhibitors of carboxylic acid transporters as potential therapeutic agents. Professor Rousch has received numerous awards and honors for his research including being named a fellow of the Alfred Sloan Foundation and of the American Association for the Advancement of Science, as well as one of the first class of fellows of the American Chemical Society. Additional honors include the Arthur C. Cope Scholar, the Paul G. Gassman Distinguished Service Award of the American Chemical Society, and the American Chemical Society's Ernest Guenther Award in the Chemistry of Natural Products.

Saturday Morning Science, under the direction of **Joe Schmidt** and **John Bellizzi**, finished its 7th year. The program is funded by an Academic Excellence Award and focuses on why science is important to the general public. The speakers and topics this year were: *The Boy Who Played with Fusion*, Taylor Wilson, Davidson Academy of Nevada and University of Nevada-Reno; *How Did Ancient Mysticisms Guide the Development of Modern Science?*, Jeffery Boats, University of Detroit Mercy; *It's Mixed/Inconsistent Versus Strong/Consistent, Not Left Versus Right: A New Way of Thinking about Handedness*, Stephen Christman, University of Toledo; *The Violinist's Thumb: True Tales Buried in Our Genetic Code*, Sam Kean, New York Times Bestselling Author and Professional Science Writer; *The U.S. Antartctic Search for Meteorites Program*, Jim Karner, Case Western Reserve University; *Keeper Tales: A Day in the Life of a Zookeeper*, Steve Oswanski, Toledo Zoo.

New Alumni

(December 2012-May 2013)

BA

Lara Al-Taji
Ross Hazzard
Daniel Hettel
Kendall Kozinski
Stephanie McGill
Benjamin Michalsky
Jamie Myers
Tyler Reamsnyder
Zachary Reaver
Andrew Stanley
Mhd Omar Subei
Lauren Wackerman
Benjamin Yglesias

BS

Waqar Arif
Elizabeth Atemnkeng Nkengasong
Nichole Bennett
Donovan Breedon
Caroline Conley
David Long
Christopher Lopez
Gabrielle Lopez
Keith Riley
Danielle Samblanet
Mark Silver
Rebecca Urso
Jamie VanPelt

MS

Quentin Dumont
Camille Lombard
Maria McAtee
Harinath Muvvala
Lucile Pinault
Qing Qin
Chao Si
Zhen Sun
Yang Xu
Haoyi Yai
Chris Yeisley
Xiuquan Zhou
Tianxia Zhu
Nicholas Zingales

PhD

Andrew Behrle
Kristi Mock
Sourav Sarkar
Suraj Saraswat

Recognizing Our Donors

The chemistry department recognizes and thanks all donors who generously made gifts during the period of July 1, 2012 to June 30, 2013 fiscal year. Donors are listed alphabetically.

Individual Contributors

Dr. Peter and Tonja Andreana
Dr. Norman and Ellen Barton
Stephen and Janet Bartus
Joan Berardo
Andrew and Elizabeth Black
Aleck and Roberta Borman
Dr. David Boucher
Margaret Brady
Dr. Theodore Brown
Glenn and Carol Cairns
Dr. James and Cecilia Case
Dr. Jamie Casper
Dr. John and Alexandra Chrysochoos
Dr. Joseph and Karen Cotruvo
Dr. Jimmie Edwards
Dr. Timothy and Bathsheba Flood
Robert and Sandra Frisch
Richard German
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CHEMISTRY NEWS ISSUE No. 21 DECEMBER 2013

Chemistry is All Around Us

Spirit poster hung in the Anthony Wayne High School gym during their basketball season highlighting that chemistry is everywhere.

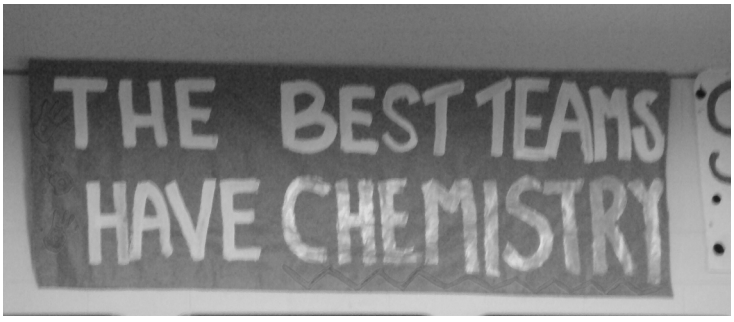

Photo courtesy of Charlene Hansen.

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