

CHEMISTRY NEWS

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From the Chair

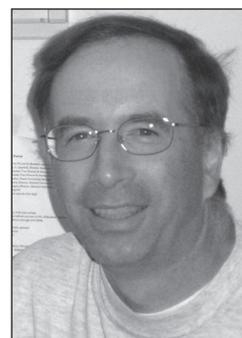
This year, we celebrate the rich history of the Department of Chemistry and Biochemistry that began on the corner of Cherry and Page streets in downtown Toledo in 1915. We also honor the legacy of Dr. Henry Kreider, the founding chair of the department, and his steady guidance from 1915-44. Under his vision, the department continuously developed to serve as a key academic subject central to the teaching mission of the university for students studying engineering, pharmacy, nursing, pre-medicine, biology, chemistry, and science education.

In the last half of the century, the department's role as a center of research activity grew rapidly to explore new knowledge. Embracing the department's missions of teaching, research and service to the University and profession, the faculty have been widely recognized for their achievements, including six Distinguished University Professors, five Master teachers, six Outstanding Teacher Awards, 11 Outstanding Research Awards, two American Chemical Society Fellows, three University Outstanding Young Researcher Awards, five prestigious National Awards, and six National Science Foundation CAREER Awards.

We also celebrate the accomplishments of our students and alumni. Having edited this newsletter for the last 15 years, I continue to learn about the outstanding contributions of our alumni to science, the chemical industry, the environment, medicine, consumer products, education, science policy, and the global community.

I hope everyone takes a few minutes and reflects on your personal contributions while you read about some of the highlights from the department's past. One of our favorite jobs is sharing these stories with alumni and the University community. Please continue to send us your news.

The University of Toledo Department of Chemistry and Biochemistry has made a positive difference to the University community and will continue to make a difference in the next 100 years. Thank you to everyone for helping the department grow to where we are today.



Best wishes for the next 100 years.

Department of Chemistry and Biochemistry (1915-2015)

Reprinted below is a portion of an article written by Lindsay Mahaney that appeared in the Sept. 28 issue of *UT News*. Also included is information from *A Brief History of the Department of Chemistry* written by Dr. Harold Oddy.

Department Grows



Chemistry Laboratory circa 1915

The UT Department of Chemistry and Biochemistry was established in 1915 with the appointment of Dr. Henry R. Kreider as chairman and found its first home on the corner of Cherry and Page streets. In 1922, it moved to Nebraska Avenue and Parkside Boulevard, where the current Scott Park campus is located, and moved again in 1931 to University Hall. This was deemed an adequate location until a post-war influx of students in 1946 made the space too cramped.

As a result, the university obtained three temporary wooden buildings made available by the federal government to help colleges handle the large number of veterans enrolling under the GI Bill. One of these buildings, which were located in what is now Centennial Mall, was used by the department, primarily for laboratory courses, from fall 1947 until fall 1960. At that time, several chemistry faculty moved into offices in the new Engineering Science Building at the west end of the current Mall. In addition to offices, the department's general chemistry laboratories, a stock room, a lecture hall seating about 100, and several small rooms for discussion classes, were used by chemistry. However, the department was split between two locations, University



Wolfe Hall was under construction in 1996 and completed in 1997.

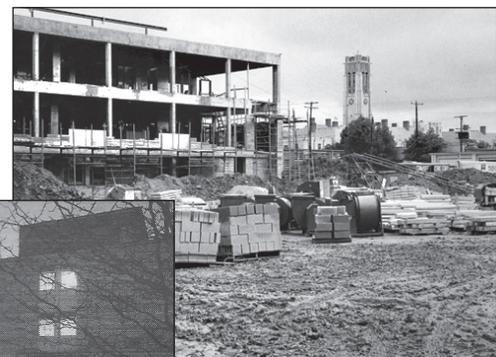


Hall and Engineering Science, a situation which persisted until the construction of Bowman-Oddy Laboratories.

Bowman-Oddy Laboratories, the department's current home, was completed in 1967, and in 1998, Wolfe Hall was dedicated to support expanding research programs and growth of undergraduate and graduate enrollment.

Kreider served as the leader of the department for 29 years until he retired in

society with more than 150,000 members worldwide. This milestone occurred in 1953, although the honors program was initiated in 1939 for students in general



Bowman-Oddy Laboratories were under construction in 1966 and completed in 1967.



1944. After several alumni expressed their wishes to honor Kreider, a scholarship fund was created under the direction of Dr. Harold Oddy, the namesake of the building and chairman after Kreider. The fund became the Kreider Memorial Scholarship and is one of the highest student honors chemistry majors can receive.

A longstanding goal of the department was to become accredited by the American Chemical Society, the largest scientific

chemistry classes. The first master's student, Martin Yee, was admitted in 1922, and the department's doctoral program was established in 1967.

The department now hosts the third largest population of students taught at UT — more than 5,000 every fall. This growth reflects the key role that the Department of Chemistry and Biochemistry has supporting numerous programs throughout the University.

Esteemed alumni

In addition to exceptional changes within the department, there have been some exceptional alumni. Although too numerous to mention individually, chemistry alumni have impacted the world as we know it. UT chemistry graduates have been recognized for their work as medical doctors, dentists, pharmacists, industrial chemists, university faculty, patent attorneys, as well as presidents, CEOs and research directors at Fortune 500 companies.

Their notable achievements and discoveries include the development of synthetic diamonds, the synthesis of artificial sweeteners, invention of vacuum pack lids to prevent food spoilage and portable defibrillators, as well as helping establish worldwide guidelines for safe drinking water and consumer products.

One exceptional leader for UT was Professor Arthur H. Black. He graduated from the department with a bachelor's degree in chemistry in 1941 and went on to enlist in the United States Navy, where he was an ensign assigned to the USS Kidd, a destroyer escort. He served in the Pacific theatre from February 1943 to April 1945, when he was wounded in a kamikaze attack. He earned a Chemistry M.S. degree from the University of Michigan in 1948.

After being discharged in May 1946, Black returned to the University and became an instructor of chemistry. While at UT, he served in a host of positions, including dean of men from 1964-68 and associate dean for the College of Arts and Sciences from 1968-83. He was active in the UT Alumni Association and received the Blue T Award, an honor recognizing

an individual's outstanding service to the University through committee and community involvement, and served as chair of the Golden Alumni Society for two years.



Even though he retired in 1983, Black continued to teach chemistry as a superannuate until 1990 and as a part-time instructor until 1996. He passed away in

2000. The department is establishing an endowed professorship to honor his lifelong commitment to the UT community. A timeline of major department events and highlights is below.

Departmental Milestones

- 1915** Department organized by Dr. Henry R. Kreider
- 1922** First graduate student admitted, Martin Yee
- 1931** Department moves to University Hall
- 1944** Dr. Henry R. Kreider retires, and Dr. Harold Oddy becomes Chair until 1964
- 1953** Bachelor's Program certified by American Chemical Society
- 1955** Alumnus Herbert M. Strong (B.S. '30) and co-workers at General Electric produce synthetic diamonds
- 1956** First Henry R. Kreider Scholars – Richard Pacer, William Savage and Gerald Penn – named
- 1967** Biology-Chemistry Building completed
- 1968** Ph.D. program officially accredited
- 1971** First Ph.D. graduate, Dr. Norman Rapino
- 1975** Biology-Chemistry Building renamed Bowman-Oddy Laboratories
- 1984** Salford Exchange Program established
- 1993** Instrumentation Center completed
- 1996** Named State of Ohio Center for Excellence in Crystallography
- 1998** Wolfe Hall dedicated
- 2000** Fourth floor laboratories added to Wolfe Hall
- 2008** Enrollment in chemistry tops 5,000 students, 3rd largest among UT departments
- 2011** College of Natural Sciences and Mathematics created
- 2011** School of Green Chemistry and Engineering created
- 2013** Department name changed to Department of Chemistry and Biochemistry
- 2015** 100th year anniversary

Centennial Lecture and Banquet: Past, Present and Future

The Department of Chemistry and Biochemistry was honored to have Drs. John Warner and Paul Anastas as featured guests to celebrate the department's centennial. They began their friendship as college classmates some 30 years ago, then combined their passions for science to lay the foundation for the field of green chemistry. Together, they are widely considered the "Fathers of Green Chemistry" and co-authored the seminal textbook *Green Chemistry: Theory and Practice*.



Warner

Dr. Warner is the president and chief technology officer of the Warner Babcock Institute for Green Chemistry. He has published more than 200 patents, papers and books, and has numerous awards. His honors include being elected a Fellow of the American Chemical Society in 2011, being named one of 25 Visionaries Changing the World by *Utne Reader* in 2012, and receiving the Perkin Medal in 2014.

Dr. Anastas is director of the Center for Green Chemistry and Green Engineering and the Teresa and H. John Heinz III Professor in the Practice of Chemistry for the Environment at Yale University's School of Forestry and Environmental Studies. He was the founding director of the Green Chemistry Institute of the American Chemical Society, and from 1999-2004 worked in the White House Office of Science and Technology Policy. Dr. Anastas has also received numerous awards for his distinguished contributions to chemistry, including the Joseph Seitler Award for Scientific Excellence in 1999, the Inaugural Canadian Green

Chemistry Medal in 2004, the Council of the Scientific Society Presidents 2008 Leadership in Science Award, and the Edward O. Wilson Biodiversity Technology Pioneer Prize in 2012.

As the centennial lecturer, Dr. Warner was introduced by Dr. Anastas, then presented the talk, *Green Chemistry: The Missing Elements* to approximately 400 attendees in University Hall's Doermann Theatre. He captivated students, faculty and the general public with his passion and life experiences about chemistry and lessons learned from thinking outside the box to solve real-world problems. He cited numerous examples of his development of new green technologies for cosmetics, pharmaceutical and wood chemistry, asphalt technology, and plastics recycling. His advice to students was to be creative and inject innovation to discover new, less hazardous or more environmentally-friendly ways to use common chemicals and materials.

Following the lecture, a reception hosted by the Toledo local section of the American Chemical Society was held in Libbey Hall. Remarks by UT President Sharon L. Gaber and Toledo Section Chair Frank Butwin, then an award presentation to Anthony Wayne High School senior Kristin Rockwell for her selection and participation in the 2015 BASF Science Academy highlighted the event.

The centennial banquet was held Oct. 1 at the GlasSalon of The Toledo Museum of Art. Highlights included a slide show of photos from 100 years of chemistry at UT and the reading of several proclamations and resolutions from the American Chemical Society, Congresswoman Marcy Kaptur, and the Ohio Department of Higher Education. Dr. **Nina McClelland** (B.S. '51, M.S. '63, Honorary Ph.D. '03) presented Daniel Liu with a certificate for outstanding student achievement in chemistry from the department for winning

the 2015 National You Be The Chemist Challenge competition. Daniel is 10 years old, a freshman at Ottawa Hills High School, and enjoys studying science and mathematics to one day be a research scientist. The slide show and proclamations may be viewed on the department website.



Anastas

Dr. Anastas provided after dinner remarks that looked into the future of green chemistry and the role that The University of Toledo can have as a leader in the field. He cited future scientists like Daniel being able to think in new ways to transform how chemistry can be used to improve the world during the next 100 years. Dr. Warner joined Dr. Anastas for a lively question-and-answer session, making for a memorable evening and celebration.

New Faculty Joins Department

Wei Li joined the department in fall 2015 as an Assistant Professor in organic chemistry. He earned a B.S. degree from



the University of North Carolina in 2006 and a Ph.D. in 2011 from the University of Michigan, Ann Arbor; in the

Li

laboratory of John Montgomery. After graduation, Dr. Li studied as a postdoctoral associate with David MacMillan at Princeton University from 2012 until coming to UT last fall. Dr. Li's research focuses on the design and development of reaction methods to construct pharmaceutically relevant and architecturally challenging molecules. This approach is mainly inspired by nature's ability to fixate carbon dioxide and to utilize photochemical energy from sunlight and cascade processes in chemical reactions. Learning from

nature, the goal will be to engineer novel and environmentally friendly chemical reactions in these areas. Successful development of reaction methods in this regard will enable future research 1) to pursue chemical structural motifs that are important in the pharmaceutical industry; and 2) to apply the synthesis of complex natural products with interesting biological activities. In addition, Dr. Li's group is interested in catalysis where they seek to understand the fundamentals of various types of catalysis and to potentially discover new areas of catalysis.

Joanna Beres and **John Payton** also joined the department as Visiting Assistant



Beres

Professors for 2015-16. Dr. Beres earned a Ph.D. from the University of Akron in 2011 under the direction of Claire Tessier.

She previously worked at Walsh University and the city of Canton's Water Reclamation Facility. She is currently supervising the undergraduate organic laboratories and teaching general and organic chemistry. Dr. Payton earned a Ph.D. from Case Western University in 2010 with M. Cather Simpson and John Protasiewicz, then was a postdoctoral associate at Penn State from 2010-12 with Lasse Jensen. He previously taught at Kent State University-Geauga and Youngstown State University. His teaching is focused on general and physical chemistry.



Payton

Emeriti News

"Longevity," **John Chrysochoos'** fourth book, has just been released by RoseDog Books. The book follows octogenarian Aris, a retired academic, who contemplates joining a group of nonagenarians and the rare group of centenarians in spite of current life expectancy in the United States. The purpose of this book is to address the many challenges retirees face, which would be appreciated by younger generations and acknowledged by the elderly. The book can be found at dorrancebookstore.com.



Jim and Carole Gano celebrated their 50th wedding anniversary! They enjoy traveling the

world from their home in Colorado. Carole continues volunteering with the library, helping with book sales and enjoying her passion of reading. Jim helps the environment through sustainable energy efforts, solar panels and driving around in

his electric car. He also organizes a crew of volunteers to protect the environment out in the foothills of Larimer County for The Nature Conservancy and patrols hiking trails in the Comanche Peak Wilderness Area for the U.S. Forest Service.

Jim and Sara Fry also are enjoying life in Colorado, especially with their son Chris and new wife living nearby. Chris is practicing law in Longmont, Colo. Jim sends his best wishes to his old colleagues in the department.

Department News/Awards/Achievements

Congratulations to the following faculty for receiving promotion to Professor during 2014-15: **Terry Bigioni, Mark Mason, Don Ronning** and **Steven Sucheck**.

Recent collaborative research from the labs of **Jon Kirchhoff** and **Jared Anderson** was highlighted in the Feb. 15, 2016 online issue of *separationsNOW*. The research was published in *Analytica Chimica Acta* with co-authors Joshua Young, Amila Devasurendra, Cheng Zhang and Viranga Tillekeratne.

Andy Jorgensen gave a presentation on climate change to a highly engaged audience at the National Press Club in Washington, D.C. Clickers were used so participants could share their views during the presentation. This presentation was noted in the American Chemical Society Weekly Newsletter on June 30, 2015.

Mark Mason was quoted in the March 19, 2015 edition of *Nature* in support of the School of Green Chemistry and Engineering. The article, entitled "*Green refill: Manufacturers are snapping up chemists who can make their products more environmentally friendly*," was a part of the graduate studies blog archive and can be found at wordpress.utoledo.edu/cogs/2015/04/21.

Kristen Kirschbaum, director of the NSM Instrumentation Center, was the 2015 winner of the Oxford Cryosystems Low-Temperature Poster Prize. She received this award for her poster *The Structural Beauty of Nanoparticles. The so far Largest Crystal Structure of a Gold Nanoparticle: Au₁₃₃(SC₆H₄Bu)₅₂*, which utilized low-temperature crystallography to solve this novel structure.

Steve Sucheck was elected secretary of the American Chemical Society Carbohydrate Division.

Krishani Rajanayake (Ph.D. student, Isailovic) received a travel grant and participated in a mass spectrometry

workshop organized by the American Society for Mass Spectrometry (ASMS) in San Diego during the fall of 2015.

Toledo Section ACS was recognized and awarded a **ChemLuminary Award** for its OPEN BOOK program last year, featuring Sam Kean. This event was part of the section's effort to increase senior chemists' participation in section events. The award was presented at the 250th National ACS Meeting in Boston Aug. 18, 2015.

The UT Student Affiliate of the American Chemical Society received a **Green Chemistry Award** and a **Commendable Award** for its activities during the 2014-15 academic year. The affiliate also participated in Wayne State University's For the Love of Chemistry Conference and received first place for its demonstration of homemade hand warmers.

Jim Zubricky was selected to join the Apple Distinguished Educators Class of 2015.

Members of the department were recognized for their years of service: 30 years – **Julie Mosher**; 25 years – **Eric Findsen, Dean Giolando, Charlene Hansen, Andrew Jorgensen, Jon Kirchhoff**; 15 years – **Xiche Hu, Mark Mason, Joe Schmidt**; 10 years – **Youming Cao, Bryant "Leif" Hanson, Cora Lind-Kovacs, James Zubricky**; 5 years – **John Bellizzi, Dragan Isailovic**.

Claire Cohen-Fray was the recipient of a Patriot Award by the United States Department of Defense for the exceptional support she provided to one of her students serving in the Ohio Army National Guard.

Edith Kippenhan and **Yasaman Saleh** (Ph.D. student, Mason) were selected to participate in the Cottrell Scholars Collaborative National Teaching Assistant Workshop at Georgia Institute of Technology in spring 2015.

After 10 years at The University of Toledo, **Jared Anderson** was provided with an excellent opportunity to move his research group to Iowa State University in Ames. The department wishes him much success in his new position. We would be remiss if we did not mention two important and noteworthy contributions he made in his last year at UT. His group published a paper that was listed as one of the Top Ten Chromatography, Mass Spectrometry, and Lab Automation Papers published in the journal *Analytical Chemistry* in 2014. This paper was one of only four papers on this list published from academic research groups in the U.S. Others included papers from George Washington University, the University of Wisconsin-Madison and Purdue University. He also was the recipient of the 2016 Pittsburgh Conference Achievement Award, which is sponsored by the Society for Analytical Chemists of Pittsburgh. This work was based on his accomplishments at The University of Toledo.

GRANTS

External Grant Awards

The Ohio Department of Education funded a proposal submitted by The University of Toledo to support the training of high school teachers in chemistry, biology and English. The proposal provides \$312,000 for Toledo Public Schools teachers and an additional \$458,000 for teachers across the state to work toward Master of Education degrees. Dr. Rebecca Schneider (Judith Herb College of Education) is the project director, while **Andy Jorgensen** (chemistry) and Barbara Schneider (English) are co-project directors. Dr. Jorgensen is coordinating the development of the new chemistry track for the Master of Education and Science degree. Other chemistry faculty involved are **Drs. Dean Giolando, Mark Mason, Kristi Mock, Claire Cohen** and **Joanna Beres**. The new program in chemistry will start in summer 2016 and, except for a small laboratory portion, will be administered in a distance learning format.

Ron Viola was awarded a one-year grant for \$261,000 from Turing Pharmaceuticals for his proposal entitled *Developing Therapies for Canavan Diseases*.

John Bellizzi received a three-year grant in the amount of \$249,000 from the NIH R15 Academic Research Enhancement Award Program for his study of the *Structure and Mechanism of Nocturnin*.

Jianglong Zhu and Xiaohua (Shannon) Li (Co-PI, University of Michigan-Dearborn) received a National Science Foundation grant for exploring *Stereoselective Construction of Difficult Glycosidic Linkages*. This grant will provide a total of \$390,000 from July 2015 through June 2018. The goal of this project is to develop new efficient methodologies for stereoselective construction of challenging β -mannopyranosides, one of the key glycosidic linkages in biologically significant N-linked glycans, for studying their biological function. In addition, this project explores new approaches for stereoselective synthesis of α -thioglycosides for the development of effective therapeutic agents. Previously, Dr. Xiaohua Li was a visiting assistant professor from 2010-2013 in the Department of Chemistry and Biochemistry at UT.

Dragan Isailovic was involved in two grants from the Ohio Department of Higher Education and Ohio State University. The first was a collaboration with Dr. Isabel Escobar (formerly UT

chemical engineering) entitled *Investigation of ELISA and Interferences for the Detection of Cyanotoxins*. The amount awarded was \$75,011. The second project was *Method Development for Detecting Toxins in Biological Samples* with Kenneth Hensley from the Department of Pathology for \$45,000.

Dragan Isailovic also was a co-PI on a \$160,634 grant with Dr. Youngwoo Seo (UT, civil engineering) from the Ohio Water Authority Board for *Optimizing the Performance of Filter Systems for Cyanobacteria Metabolites Removal*.

Alan Pinkerton received a new, three-year grant award for \$450,000 from the Office of Naval Research for his proposal entitled *New Experiments Towards Understanding Shock Sensitivity of Energetic Materials*.

University of Toledo Research Grants Funded for 2014-2015

Ajith Karunaratne received a deArce-Koch Memorial Endowment Fund for his project entitled *Optical Interrogation of G Protein Subunit Function in Cancer Cell Migration*.

ACS Project Seed

Our department hosted the local American Chemical Society's Project Seed program for the 12th time in the summer of 2015. Project Seed provides stipends to financially disadvantaged high school students so they can have a research experience under the direction of a faculty member. Last year **Drs. Karunaratne, Zhu, Bryant-Friedrich Anderson and Lind-Kovacs** hosted students in their labs. At the end of the summer the young researchers presented their work to UT and community members, including high

school teachers. We have submitted our application for a 2016 class of Project Seed. ACS provides half support, which is matched by one of our departmental, college or federal grant funds. Students who complete the project are eligible to apply for college scholarships from ACS. One of our 2014 Seed students received such a grant and is now pursuing her degree at UT. For more information contact Dr. Andy Jorgensen, andy.jorgensen@utoledo.edu.

Living Memorial



Alumni, faculty and friends of Masangu Shabangi (Ph.D., '99, Flowers) contributed to a living memorial of an ivory silk lilac tree following Shabangi's death on March 13, 2014 from a pulmonary fibrosis infection. His wife, Leah, and two children are grateful for the generosity and overwhelming support they have received. The tree is located on the northeast corner of Wolfe Hall by the parking garage.

Alumni News

Births

Daksh Saraswat arrived May 23, 2014 to **Suraj Saraswat** (Ph.D., '12, Isailovic) and **Nidhi Jaiswal** (M.S., '11, Isailovic).

Engaged

Lindsay Young (M.S. '14, Lind-Kovacs) is engaged to Thomas Galandiuk.

Weddings

Stacy Gates (Ph.D. '08, Lind-Kovacs) married Scott Rector Sept. 17, 2015 at St. Paul's Baptist Church in West Chester, Pa. Scott is a special educator at the high school level. When he is not busy with his special needs students, he tends to the special needs of our country as an airman in the United States Air Force Reserve. Stacy continues working as a senior scientific editor at the International Centre for Diffraction Data.

Claire Cohen (Associate Lecturer) married Daniel Fray June 28, 2015 at the Toledo Zoo.

Tamam Baiz (Ph.D. '10, Lind-Kovacs, M.S. '04, Schmidt) married Hassan Jassar May 15, 2015 in Dearborn, Mich.

Suraj Saraswat (Ph.D., '12, Isailovic) and **Nidhi Jaiswal** (M.S., '11, Isailovic) were married Dec. 9, 2012. Both are working in the Salt Lake City area as research scientists. Suraj works in the Infectious Disease Department at ARUP Laboratories, and Nidhi is at Covance. ARUP is a national clinical and anatomic pathology reference laboratory, while Covance is a comprehensive drug development services company.

Career Updates

Surya Adhikari (Ph.D. '15, Zhu) is a postdoctoral researcher in the Department of Chemistry and Chemical Biology at Indiana University – Purdue University Indianapolis (IUPUI), Indianapolis, IN.

Kedar Baryal (Ph.D. '15, Zhu) is a postdoctoral researcher in the Department of Chemistry at Michigan State University, East Lansing, MI.

Hem Khatri (Ph.D. '15, Zhu) is a postdoctoral researcher in the Department of Chemistry at University of Michigan, Ann Arbor, MI.

Danyang Zhu (Ph.D. '15, Zhu) is currently looking for chemistry teaching positions in academic institutions.

Lindsay Young (M.S. '15, Lind-Kovacs) is a R&D chemist at Proto Manufacturing in Taylor, Mich. The company develops instrumentation for the characterization of materials and has provided solutions for laboratory, factory and field environments for more than 30 years.

Tien Ho (Ph.D., '14, Anderson) accepted a position with AbbVie, where he develops methods for early stage pharmaceuticals. He was featured in PITTCON Today's March 11, 2015 edition, "Lights, Camera, Action on Exhibition Floor."

Camille Lombard-Banek (M.S. '13, Griffith) published the paper Single-Cell Mass Spectrometry for Discovery Proteomics: Quantifying Translational Cell Heterogeneity in the 16-Cell Frog (*Xenopus*) Embryo in *Angewandte Chemie International Edition*, 2016, 55, 1-6.

Nathan Banek (M.S. '11, Lind-Kovacs) won first prize at the George Washington University Innovation Competition. The technology consisted of using cellulose biomass to sequester carbon into a useful product. The prize was received based on numerous criteria, such as demonstrating unmet need, an addressable market, path to market, customer base, and working prototypes. Nathan is currently participating in an NSF I-Corps project to further analyze the market for the product. More information is available at gwtoday.gwu.edu/innovation-competition-draws-inventors.

John Beck (Ph.D. '11, Schmidt) is an instructor of chemistry at Lake Michigan College, Benton Harbor, Mich., in the Department of Natural Sciences and Education. He is responsible for the organic chemistry sequence and teaches introductory chemistry.

Claudine Lumbiao Arm (M.S. '06, Kirchhoff) is working as a TS engineer II at Laird-Performance Materials in Cleveland.

Stephania Messersmith (Ph.D., '04, Kirchhoff) was promoted to senior lecturer in 2015 and coordinator for STEM at Bowling Green State University.

Anne Marteel-Parrish (Ph.D. '03, Mason) is the recipient of the Centennial Award for Excellence in Undergraduate Teaching. Iota Sigma Pi, a national honor society for women in chemistry, recognizes and celebrates accomplished women in the field. Marteel-Parrish, chair of the Department of Chemistry at Washington College, Chestertown, Md., teaches specialty courses such as fundamentals of materials science, and green and sustainable chemistry.

Helene Citeau (Ph.D., '01, Giolando) is director of scientific instruments at the University of San Diego. Helene sent us the following message: "I wish you all a happy 100th (department) birthday! I wish I could be there for the celebration. My thoughts are in Toledo right now, celebrating among you all, and enjoying the promises of the fall season. Wishing you a wonderful celebration."

Sapna Gupta (Ph.D., '94, Morgan) is the author of an eight-book children's series on Manu's Adventures. She began writing in 2010 for her two nephews, ages 5 and 7, who loved Manu. When she is not working on her chemistry lectures at Palm Beach State College in Lake Worth, Fla., she blogs about her experiences traveling, interacting with people, and her general opinion on life. Find her blog at drsapnag.blogspot.com.

Norman Rapino (Ph.D., '71, Griffin) accepted the position of executive director of Rocket Innovations at The University of Toledo after spending time as director of mentoring at the Center for Entrepreneurship in the College of Engineering at the University of Michigan.

Condolences

Dr. Jeffrey Dunn, who was director of The University of Toledo College of Arts and Sciences Instrumentation Center from 2001-06, lost a long and courageous battle with cancer Dec. 25, 2015 in Florida. During his career, he was a prodigious researcher and author, with more than 100 journal publications, conference presentations, reports and chapters on a wide variety of topics ranging from thermogravimetry, flash-smelting of nickel-iron sulfide concentrates, gold processing, energy storage, oil shale, pipeline testing, cement products and more. Surviving are his wife, Delores Poneman Dunn, and many family and friends.

Dr. David Ager, a faculty member in the department from 1982-86, passed away April 20, 2015 in Raleigh, N.C. He was a principal scientist at DSM and a fine chemicals expert. He was credited with several patents, authored many journal articles on chiral chemistry, contributed to chemistry textbooks and served as an expert witness in federal patent litigation. He is survived by his wife, Susan LaJoie, six children and eight grandchildren.

Anna May Klippel, 93, died May 30, 2015 in Worcester, Mass. She taught chemistry classes at UT in the late 1940s.

Awards/Scholarships

The following awards and scholarships were presented at the Spring 2015 Honors Tea:

Alfred F. Foster Health Science Award

Arielle White (fall)
Mahdya Aldahnim (spring)

Analytical Chemistry Award

Rodney Park

Arthur H. Black Award for Analytical Chemistry

Nathan Diemler
Rodney Park

Biochemistry Award

Alisha Sangal

CRC Press Freshman Chemistry Achievement Award

Rohit Kumar

Dean's Medal for Outstanding Graduating Senior

Nathan Diemler

Outstanding Graduating Senior

Marcus Cluse

Inorganic Chemistry Award

Ryan Kremer

Organic Chemistry Award

Zachary Holtzapple

Physical Chemistry Award

Jonathan Tomko

Arthur H. and Virginia R. Black Merit Scholarship

Alex Hanes

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

Megan Celedonia
Jonathan Tomko

Andrew Dollimore Award in Chemistry

Emily Rady

The Chemistry Faculty Scholarship Kreider Scholar

James Dunaway

David R. Hostetler Memorial Scholarship

Elizabeth Russell
Jennifer Kim

Henry R. Kreider Scholarship in Chemistry

RaeLynne MacBeth
Rodney Park

CV Wolfe Scholarship in Natural Sciences

Elissa Kenney

William B. Silverman Scholarship

Brianna Raab

Outstanding Teaching Assistant

Ali Najafi

Outstanding Graduate Student Research Paper of the Year

Hosein Tafazolian

Outstanding First Year Graduate Student

Abhishek Vartak

New Alumni

(August 2014-May 2015)

B.A.

Bassel Al-Taji
Omar Badawi
Claire Cameron
Yujing Ding
Ali El-Tatawy
Laura Hockey
David Kleinger
Danielle Leffler
Lola Massenberg
Nicholas Wourms
Jae-min Yim

B.S.

Marcus Cluse
Nathan Diemler
Sarah Levi
Matthew Marria
Armon Mohammadione
John Newman
Joseph Scherer
Alexander Stuart

M.S.

Brian Conn
Rajvinder Kaur
Brad Monahan
Lindsay Young

Ph.D.

Brian Ashenfelter
Lorenza Favrot
Xiaodong Gao
Christopher Gianopoulos
Tien Ho
Hem Khatari
Steven Toth
Yasanandana Wijayasinghe
Joshua Young
Nicholas Zeringo

Recognizing Our Donors

The department recognizes and thanks all donors who generously made gifts during the period of July 1, 2014 to June 30, 2015 fiscal year. Donors are listed alphabetically.

Individual Contributors

Dr. Norman and Ellen Barton
 Stephen and Janet Bartus
 Andrew and Elizabeth Black
 Mrs. Helen Black
 Dr. David Boucher
 Jessica Brown
 Dr. Theodore Brown
 Glenn and Carol Cairns
 Dr. James and Cecilia Case
 Dr. John and Alexandra Chrysochoos
 Dr. Joseph and Karen Cotruvo
 Dr. Jimmie Edwards
 Robert and Sandra Frisch
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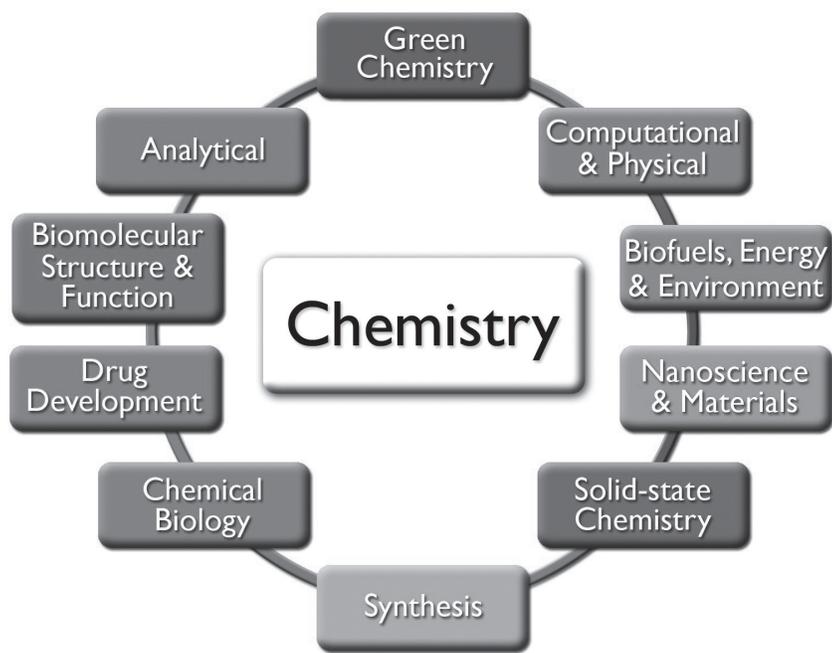
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