

CHEMISTRY NEWS

A PUBLICATION OF THE UNIVERSITY OF TOLEDO DEPARTMENT OF CHEMISTRY AND BIOCHEMISTRY • TOLEDO, OH 43606
 EDITORS: DR. JON KIRCHHOFF, DR. ROBERT NIEDZIELSKI • ASSISTANT EDITOR: CHARLENE HANSEN 419.530.7902



INSIDE THIS ISSUE

New Faculty Joins Department 2

New Professional Science Master's Degree beginning Spring 2015 2

Dr. Lancelot C.A. Thompson Meeting Room Dedication 3

Alan Pinkerton Retirement.3

Department Highlights..... 4

ACS Project SEED News .. 6

Memories of an Undergraduate – Gordon Mather (B.S., '59)..6

Two Chemistry Alumni Receive NSF Graduate Research Fellowships 6

Chemistry Graduate Student Revives Toledo Crew 7

Alumni News 8

Awards/Scholarships..... 9

Recognizing Our Donors..10

Give a Gift, Make a Difference!..... 11

The View From the Chair



Jon Kirchhoff

Happy New Year to all University of Toledo Department of Chemistry Alumni! As we look back on 2014 in this issue of your *Chemistry News*, we want you to know that 2015

is a special year for the department. First, you will notice that our name has changed to the Department of Chemistry and Biochemistry to reflect the expanding degree programs and research in biochemistry in the department. It was 100 years ago in 1915 that Dr. Henry Kreider Sr. first organized the chemistry department at UT. Much has changed at the university and in the department since that time, but what has been constant is the excellent group of students we are fortunate to teach. Headcount in chemistry classes rose from 5,000 students to 5,028 in Fall 2014. We also have over 125 chemistry and biochemistry majors, many of whom are supported by departmental and university scholarships. I want to personally thank all of our generous alumni who have donated funds to support our students. The scholarships and programs truly enrich our future alumni as they work to pursue their goals in chemistry, biochemistry and the medical profession. Please accept my deepest appreciation for your support of our scholarships and programs.

As we look to the next 100 years, the department is conducting an external search for a new chairman, as well as tenure track searches for faculty in organic

and biochemistry. We will also work hard to fully fund the Arthur H. Black Professorship. The department did add an analytical chemist to the faculty for fall 2014. Welivitiya "Ajith" Karunarathne is an expert in biological imaging and has done exciting research in developing methods to study cell signaling. I invite you to check out some of his movies on the department website. Kristi Mock is also now a full-time lecturer. Although Alan Pinkerton retired last year after 30 years at UT, we are still fortunate to have him conducting his internationally recognized research in the department with grants from the Department of Energy and the National Science Foundation. Our faculty and students continue to excel in teaching, research and service to the profession. Many of their accomplishments and honors are found inside this newsletter as are accomplishments and news from your fellow alumni.

Please accept my best wishes for the New Year. As always, we look forward to hearing from you. We will also let everyone know of any upcoming special events for the department's centennial celebration.

Regards,

New Faculty Joins Department



Ajith Karunarathne joined the department in fall 2014 as an Assistant Professor in bioanalytical chemistry. He received his Ph.D. in 2009 from Michigan State University in the laboratory of Dana Spence. He continued his education as a postdoctoral research associate at

The Washington University School of Medicine in St. Louis, MO with Narasinhm Gautam until coming to UT this fall.

His research in cell biology & G protein coupled receptors (GPCR) and G protein signaling, optogenetics, molecular biology/biochemistry and cardiovascular biology has led to 17 publications to date, including prestigious publications in *Neuron* and the *Proceedings of the National Academy of Sciences*. These publications describe a novel optogenetic approach to spatially and temporally control GPCR in single cells with sub-cellular resolution, and control complex cell behaviors such as cell migration. Dr. Karunarathne has hands-on experience in subcellular optogenetics, biosensor design, advanced imaging techniques including fluorescence

resonance energy transfer (FRET), fluorescence recovery after photobleaching (FRAP-PA), total internal reflection fluorescence (TIRF), and developing single-cell based assays to monitor real time dynamics of signaling molecules. Current research in his lab focuses on understanding of (i) information flow in signaling networks that control cancer cell migration (ii) oscillatory behavior of Cyclic Adenosine Monophosphate (cAMP) in neuronal symmetry breaking and (iii) generation of novel optical triggers to control, modulate, and interrogate intricate cell behaviors such as cell migration, division, adhesion and development.

His lab welcomes highly motivated graduate, undergraduate and high school students to join and explore what light can do and how light can be used in biology.

New Professional Science Master's Degree beginning Spring 2015

By Mark Mason, Director of the SGCE



**SCHOOL OF GREEN
CHEMISTRY AND ENGINEERING**
THE UNIVERSITY OF TOLEDO

The University of Toledo School of Green Chemistry and Engineering (SGCE) has developed an interdisciplinary academic program that incorporates the principles of green chemistry, green engineering and green business. This is being accomplished through collaboration of faculty in the Colleges of Natural Sciences and Mathematics, Engineering and Business and Innovation, using the guiding principles provided in The Green Chemistry Commitment and the Green Chemistry and Commerce Council's Policy Statement on Green Chemistry in Higher Education.

For the new Professional Science Master's (PSM) degree in Green Chemistry and

Engineering, there will be a minimum of 12 credit hours of graduate coursework in traditional areas of chemistry and/or chemical

engineering. Students are required to take graduate courses in Green Chemistry, Environmental Chemistry, Green Engineering Principles for Chemical Processes and Green Engineering Applications in Chemical Industries. Embedded in these courses is coverage of toxicology, chemical hazards assessment, sustainability analysis and pertinent legislation and policy. The Green Engineering Principles course also serves as a bridge course, allowing chemistry and science students to learn the basics of chemical engineering and enabling them to enroll in pertinent electives in chemical and environmental engineering by bypassing numerous prerequisites. The business content for the PSM degree is provided

by courses in Supply Chain Management, Technology Commercialization and New Venture Creation. Students must take a minimum of two business courses, which are also required of students in UT's PSM in Photovoltaics. Professional skills, a trademark of PSM programs, will be further developed during the mandatory industrial internship. Relevance of course content and internship experiences will be assured by an industrial advisory board, a requirement for all PSM degree programs.

Student recruitment for admission to the PSM Degree in Green Chemistry and Engineering began in January 2015. More information can be obtained via the website, <http://www.utoledo.edu/nsm/sgce/index.html>.

Dr. Lancelot C.A. Thompson Meeting Room Dedication

On February 19, 2014, Student Union Room 2592 was dedicated and renamed the Dr. Lancelot C.A. Thompson Meeting Room. The dedication ceremony was sponsored by The University of Toledo, Alpha Phi Boule (Toledo Chapter of Sigma Pi Phi Fraternity) and Alpha Phi Alpha Fraternity. Several speakers honored Dr. Thompson as a teacher, mentor, colleague and friend.

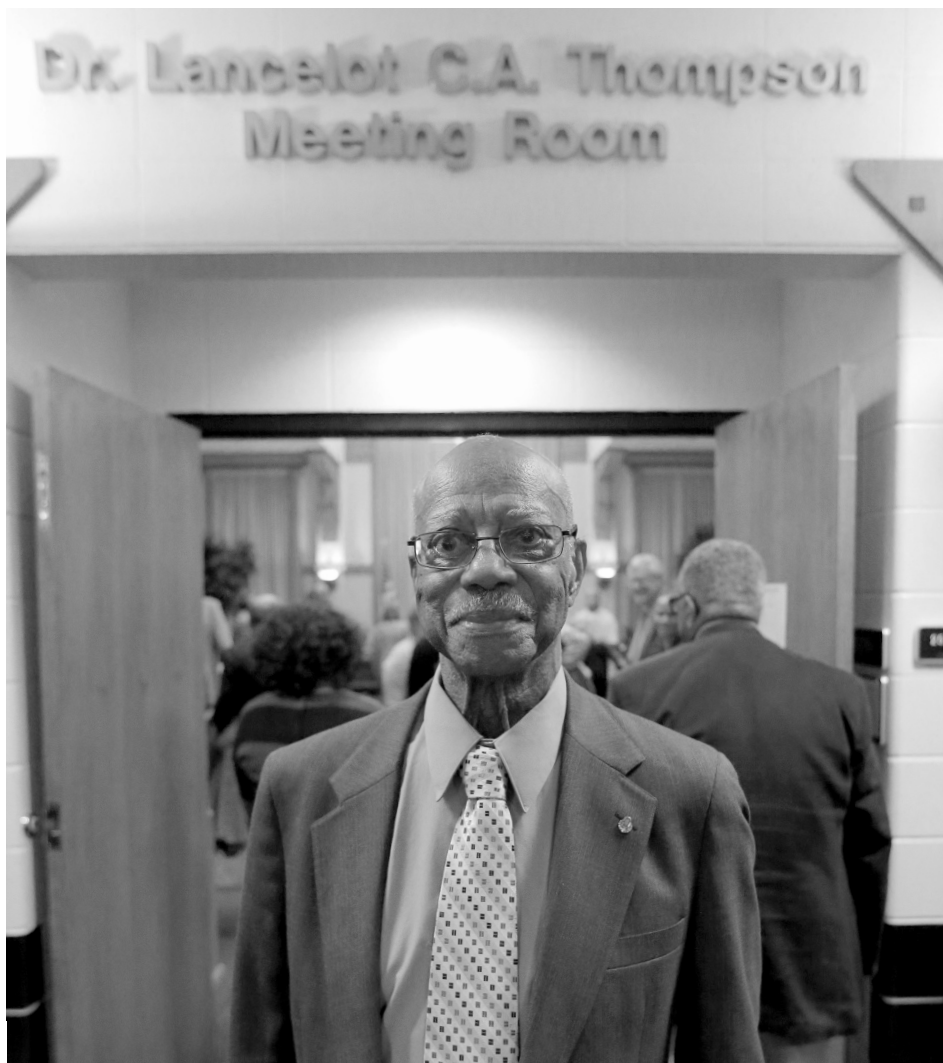
A native of Jamaica, Dr. Thompson had been teaching high school there when he received a track scholarship from Morgan State University in Baltimore, MD in 1949. He had previously competed in the Pan American Games in 1946 held in Colombia, as well as later in Guatemala. In 1975, Dr. Thompson was inducted into the Morgan State University Athletic

Hall of Fame. He earned a B.S. degree in chemistry from Morgan State in 1952, followed with a Ph.D. in physical-inorganic chemistry from Wayne State University in 1955 and returned briefly to Jamaica. Dr. Thompson joined The University of Toledo as an assistant professor of chemistry in 1958. He was the university's first full-time African-American faculty member. In 1964, he was one of the first four recipients of the university Outstanding Teacher Award. Later that year he was appointed assistant dean for undergraduate studies in the College of Arts and Sciences. He subsequently became dean of student services in 1966, and in 1968 was named vice president of student affairs. He remained in that position until his retirement in 1988. Dr. Thompson founded the track team

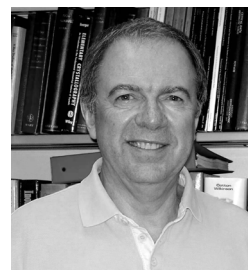
at the university and inaugurated the annual UT Aspiring Minorities Youth Conference.

Dr. Thompson has been widely recognized for his service to Alpha Phi Alpha and to the student personnel administrators' field. His community service record has also been extensive and he has long been active in Kiwanis.

Throughout his career, Dr. Thompson's office door was always open. He has served as a mentor to many students, especially student-athletes. Of all his achievements and awards, he is especially proud of the fact that he continued to teach regularly during his 22 years as an administrator.



Alan Pinkerton Retirement



On June 30, 2014, Alan Pinkerton decided to retire, well, sort of. Although officially retired from the typical day-

to-day faculty assignment after 30 years of teaching, research and service (15 as department chair), Alan will continue to run his research laboratory as a Distinguished University Professor of Chemistry and Biochemistry and Professor Emeritus. His lab remains busy performing cutting-edge x-ray crystallography and electron-density measurements through funding from the Department of Energy and National Science Foundation. In fact, Alan's lab was spotlighted as a feature in a recent issue of the *Rigaku Journal*. We look forward to seeing the new science coming from his laboratory.

Department Highlights

GRANT\$\$

External Grant Awards

Dragan Isailovic received a grant of \$764,586 from The Defense University Research Instrumentation Program (DURIP) for his proposal entitled *High-resolution Mass Spectrometer for Biomarker Discovery*. The funds will be used to purchase an Orbitrap Fusion MS System. Ken Hensley, David Giovannucci and Brett Cameron from the Health Science Campus and College of Engineering were co-PIs on the proposal. He was also involved in a successful collaborative proposal with Ming-Cheh Liu (PI, Pharmacy) and Viviana Ferreira (co-PI, Medical Microbiology and Immunology) that was funded in the amount of \$154,000 from the American Heart Association entitled *Role of Post-translational Tyrosine Sulfation in Complement Pathways*.

Alan Pinkerton and **Vladimir Zhurov**, Research Associate, were awarded a three-year \$500,000 Department of Energy grant for their proposal entitled *Experimental Electron Density Distribution in Actinide Compounds-An Experimental Atoms in Molecules Approach*.

Jared Anderson was awarded a three-year grant from NSF totaling \$400,000 for his proposal entitled *Exploring Ionic Liquids in Sample Preparation and Multidimensional Chromatographic Separations*.

University of Toledo Research Grants Funded for 2013-2014

Jon Kirchhoff and **Jared Anderson** received a University Research and Fellowship Program grant for \$6,000 entitled *Electrodeposited Ionic Liquid Films for Solid-Phase Microextraction*.

University Summer Undergraduate Research and Creative Activity Awards Program (USRCAP) and First Year Summer Research Experience (FYSRE) Awards for 2014

James Dunaway (**Jianglong Zhu**)
Chemical Synthesis of Simplified Analogues of Antitumor Antibiotic Derhodinosylurdamycin A

Melissa Yamsek (**Jared Anderson**)
Utilization of Magnetic Ionic Liquids in the Extraction and Isolation of Deoxyribonucleic Acid (DNA)

Isaiah Ingram (**Jared Anderson**)
Screening of Ionic Liquids as Stationary Phases in Multidimensional Gas Chromatography

Nathan Diemler (**Terry Bigioni**)
Synthesis of Single-Sized Silver Nanoparticles

Uche Anene (**Xiche Hu**)
Molecular Modeling of How Anti-cancer Drug Imatinib Binds to Its Target Protein

Sydney Edinger (**Cora Lind-Kovacs**)
Low Temperature Synthesis of Scandium Iron Molybdate

Nadeen Sarsour (**Tim Mueser**)
Metal Ion Binding to the DNA Substrates of Bacteriophage T4 RNase H

Kevin Samson (**Dragan Isailovic**)
Characterization of a Unique Lipid A Structure found in Burkholderia pseudomallei

Samuel Johnson (**Steve Sucheck**)
The Synthesis and Application of a Biotin-conjugated Ebselen Probe

Awards/Achievements



Jared Anderson was included in *The Analytical Scientist Power List for 2014*. *The Power List* recognizes the top 40 analytical scientists worldwide under the age of 40 who demonstrate what can be achieved with determination, passion and inspiration. The *Analytical Scientist* is an international publication from the United Kingdom.

Jared Anderson was invited to serve on the Editorial Advisory Board of *Analytica Chimica Acta*.

Cora Lind-Kovacs was elected Vice Chair for the United States National Committee for Crystallography.

Jim Zubricky was named the Toledo ACS 2015 Outreach Volunteer of the Year.



Steve Sucheck was recognized with the *Discover Award* on October 16, 2014 by the Ohio Cancer Research Associates and Medical Mutual for his contributions toward cancer research.

Steve Moder was elected President of the American Scientific Glassblowers Association for 2014-15.

Amanda Bryant-Friedrich, Associate Professor of Medicinal and Biological Chemistry and joint Associate Professor in Chemistry and Biochemistry received the 2014 Stanley C. Israel Regional Award for Advancing Diversity in the Chemical Sciences. Amanda received her award at the Central Regional Meeting of the American Chemical Society (ACS) on October 30, 2014 in Pittsburgh, PA. The award is sponsored by the ACS Committee on Minority Affairs and given annually to those who promote inclusiveness within the Central ACS region, which encompasses 25 ACS local sections from Ohio, Michigan, Indiana, Pennsylvania and West Virginia.



Jim Zubricky, Frank Butwin, Amanda Bryant-Friedrich and Joanna Hinton

John Bellizzi received the 2012-13 Natural Sciences and Mathematics Outstanding Teaching Award.

The University of Toledo Student Chapter of the ACS (UTstACS) was recognized in the Commendable Award category by the National Office of the ACS for 2013-14. The chapter was also named a Green Chemistry Student Chapter.

Protein samples from **Tim Mueser** and **Don Ronning's** labs were launched from the Kennedy Space Center on September 21, 2014 and were destined for the International Space Station. Their experiments were designed to grow crystals in the zero gravity of space for future neutron diffraction studies.

Research from **Terry Bigioni's** group was published in *Nature Materials*.

Kevin Clark (Ph.D. candidate, Anderson) is the recipient of a 2014-15 University of Toledo Fellowship. This fellowship can be renewed for up to three years. Kevin also received an Association of Analytical Chemists (ANACHEM) student award for his poster presentation at the November 2014 ANACHEM Symposium in Livonia, MI.

Vishwanath Giatonde (Ph.D. candidate, Sucheck) is spending the 2014-15 academic year at GlaxoSmithKline Pharmaceuticals in Research Triangle Park, NC on a one-year paid internship. He is working in the Drug Discovery and Infectious Disease division.

Partha Karmakar (Ph.D. candidate, Sucheck) is also at GlaxoSmithKline Pharmaceuticals in Upper Providence, PA on a one-year paid internship. He is working on drug design, lead optimization and drug development, route design and synthesis of organic small molecules related to drug development.

Rachel Marvin (Ph.D. candidate, Isailovic) received a travel grant to participate in a mass spectrometry workshop organized by American Society for Mass Spectrometry in Chicago, IL in fall 2013.

Krishani Rajanayake (Ph.D. candidate, Isailovic) received a travel grant and participated in a mass spectrometry workshop organized by American Society for Mass Spectrometry (ASMS) in Seattle, WA in fall 2014.

Raymond West (Ph.D. candidate, Isailovic) was awarded the 2013 Best Student Paper Award from the *International Journal of Mass Spectrometry*. The award was presented to Raymond at the annual conference of the American Society for Mass Spectrometry in June 2014.

Honglian Yu (Ph.D. candidate, Anderson) spent summer 2014 on a paid internship position in the Early Discover and Development Department of Process Analytical at Genentech in San Francisco, CA.

Happy belated birthday to **John Chrysochoos**, Professor Emeritus, who turned 80 in the spring of 2014 and **Lance Thompson** who will turn 90 in spring 2015.

ACS Project SEED News



Mikayala Becker (2014 Maumee High School graduate) was a recipient of a 2014-15 Project SEED College Scholarship for her freshman year. The scholarship is a one-year, nonrenewable scholarship of up to \$5,000 sponsored by the Bayer Foundation. She spent the summer of 2013 as a Project SEED student working with **Jianglong Zhu** on the project, *Stereoselective Synthesis of 2-Deoxy Glycosides in Antitumor Antibiotics*.

The **Toledo Local Section of the American Chemical Society** held its second Annual ACS Project Seed and ACS Travel Grant Recipient Student Research Symposium on August 21, 2014. The following students made presentations: **Harmonie Christian** (St. Ursula, Beth Porter and Jared Anderson, mentors) on *The Use of Magnetic Ionic Liquids in the Extraction and Isolation of DNA*; **Tamia Reditt** (Central Catholic, Kathy Wilkins and Cora Lind-Kovacs, mentors) on *Negative Thermal Expansion Materials* and **Crissy Reno** (Sylvania Southview, Mark Johnson and Jianglong Zhu, mentors) on *Stereoselective Synthesis of S-linked 2-Deoxy Glycosides*. Student Research ACS Travel Grant Recipients' poster presenters were **Hem Raj Khatri** (Ph.D. candidate, Jianglong Zhu), **Yining Jin** (Ph.D. candidate, Hermann von Grafenstein, Medicinal & Biological Chemistry) and **Amila Devasurendra** (Ph.D. candidate, Jon Kirchhoff).

Memories of an Undergraduate – Gordon Mather (B.S., '59)

Dr. Gordon M. Mather earned a bachelor's degree in chemistry in 1959. He retired after a distinguished career as an internist in Toledo. Dr. Mather has been a regular, generous contributor to the Department of Chemistry. He was asked to comment on his experience at "TU" and he provided the following remarks:

I was a native Toledoan when I entered The University of Toledo in 1955. TU, as it was then called, was a very small institution, easily accessed and most importantly, inexpensive to attend. When I entered, I was unaware of the fine quality of professors I would encounter and who subsequently would shape my academic life and my approach to learning. At that time, I was stimulated to learn for "the sake of learning" and was encouraged to take a rigorous yet broad curriculum. My fellow students and I had a close relationship with the professors and not infrequently would

have lunch and stimulating conversations with them in their offices.

I have never forgotten the gentle Dr. Brundage, the boss Dr. Oddy, Professor Black, the twin Drs. Foster (*Editor's note: Al in Chemistry and Ed in Physics*) and others.

I thought long and hard about pursuing a career in chemistry along with my medical studies when I subsequently entered The University of Michigan but was told by the professors that this was "not done" there (it certainly is now) so I continued on in medicine and subsequently returned to this fine city to practice Internal Medicine from which I retired a few years ago.

My deep debt of gratitude to The University of Toledo has stimulated me to continue to make ongoing and incremental financial contributions to this fine institution.

Two Chemistry Alumni Receive NSF Graduate Research Fellowships

Mallory Ladd graduated with a B.S. in chemistry from UT with a minor in Spanish and Forensic Investigation. She graduated with departmental and college honors (*Magna Cum Laude*) in 2011 and completed an undergraduate honors thesis with Wendell Griffith. Mallory then worked with Mike Weintraub in the Environmental Sciences department as a lab and field research technician for two years. In fall 2013, she accepted a fellowship offer at the University of Tennessee in the Energy Science and Engineering Ph.D. program and currently works with the Next Generation Ecosystem Experiments (NGEE-Arctic) biogeochemistry team at Oak Ridge National Lab (ORNL) (<http://ngee-arctic.ornl.gov/>). Her research involves using analytical chemistry to understand nitrogen dynamics and transformations in permafrost soils. Mallory is also very interested in energy and environmental policy, science outreach and education. She keeps a science blog and research website at malloryladd.com and was recently elected as Secretary of the East Tennessee American Chemical Society local section.

Derek Mull received his B.S. in both Chemistry and in Biology from UT in 2011. He interned at ORNL from January to August 2011 in the Higher Education Research Experience Program through Oak Ridge Associated Universities (ORAU) and in September 2011, relocated to Los Angeles to join the research group of Omar Yaghi at UCLA. In May 2012, he moved to Tampa, FL, where he spent the year tutoring and working in the nonprofit and healthcare sectors. He began his graduate studies at the University of Tennessee in August 2013, where he joined the research group of Dr. David Jenkins.

The National Science Foundation Graduate Research Fellowship Program recognizes and supports outstanding graduate students in NSF-supported science, technology, engineering and mathematics disciplines who are pursuing research-based master's and doctoral degrees at accredited U.S. institutions. Congratulations to these two outstanding graduates of The University of Toledo.

Chemistry Graduate Student Revives Toledo Crew

When **Brian Ashenfelter** (Ph.D. student, Bigioni) joined the department in fall 2009, little did he know he would be instrumental in reviving the university's rowing team. There was a club team for Crew in the '80s and '90s but it fell apart due to lack of organization and support. Brian fell in love with the sport about the same time and wanted to provide an opportunity for UT students to experience rowing.

With no coach, equipment, or guidance for the task he was embarking on or support from the university, he felt like he was a boat with no oar. Getting students to participate was the easy part but obtaining the funding to buy boats and other equipment, along with the travel, was basically impossible.

Early on, and with the help of the Toledo Rowing Club, he was able to borrow boats and equipment, race against anyone who would allow them to race and try to save money where he could. Eventually, using his own funds, he purchased a couple of used boats, oars, indoor rowing machines for training and other miscellaneous equipment needed for rowing. The Toledo Crew team was up, running, and entering competitive regattas. They compete against fully funded programs with NCAA varsity status and scholarship athletes with paid coaches and new boats.

The team has been all over the country participating in a number of prestigious



regattas on the Mississippi River, the Olympic course in Atlanta, the Dad Vail Regatta in Philadelphia and in the tri-state area of Ohio, Michigan and Indiana. In October, they participated in one of the largest regattas in the world, the Head of the Hooch on the Chattahoochee River in Chattanooga, TN. Over 2,000 boats represented 205 teams from all over the U.S. and Canada.

The Toledo Crew team was revived for the love of the sport with minimal support and has become one of the largest club sports on campus. Students from all majors with little or no exposure to rowing have joined. Brian continues to support the club with his own finances with the hope that the

university will get on board and provide additional funding. They continue to grow in experience and are getting close to being on the medals podium. The future looks bright for the Toledo Crew Team led by our own Brian Ashenfelter.

[Crew Team picture from Regatta in Indianapolis, IN: Front row: Jesse Haefka, Hannah Stang, Daniel Russell, Ben Lee; Middle row: Ammaarah El-Amin, Ashomathi Mollin, Abbigail Reno, Sara Takacs, Emily Reutter, Tessa Glover, Neelnayana Kalita; Back row: Coach Shannon Reiter, Cameron Downs, Matt Steward, Nick Whitmore, Eric Goodin, Coach Brian Ashenfelter]



Photo courtesy of Daniel Miller.

Chemistry Alumna Receives Gold T Award

Nina McClelland (B.S. '51, M.S. '63, Honorary Ph.D. '03) was honored as the Gold T Award recipient by the Alumni Association at October 2014's Homecoming events. The Gold T Award is given to an individual who has made an outstanding contribution to his/her field and has been of service to the university, community and/or nation.

ALUMNI NEWS

Births

Dan and **Kristi Mock** (Ph.D., '12, Kirchhoff) are proud parents of Aurelia Jeanne who was born on December 8, 2014 at 19 inches long, weighing 5 lbs. and 8 oz. Indiana is her proud brother.

Sharvi Adhikari was born on October 21, 2014 to **Surya Adhikari** (Ph.D. candidate, Zhu) and Sarita Bhattacharai. She was 20 inches long and weighed 6 lbs., 5 oz.

Nathan Young was born August 4, 2014 to **Joshua** (Ph.D. candidate, Kirchhoff) and Ashley **Young**. He was 6 lbs., 15 oz., 20 inches long with a full head of hair. His big sister is Brooke.

Mihi Sayum Devasurendra was born on May 7, 2014 to **Amila Devasurendra** (Ph.D. candidate, Kirchhoff) and **Dilrukshika Palagama** (Ph.D. candidate, Isailovic). Mihi weighed 7 lbs., 6 oz.

Anna Charlotte Butcher was born on May 1, 2014 to James and **Adeline Miermont Butcher** (Ph.D. '08, Huang). She was 9 lbs. 4 oz. and 21 inches long.

Leah (Kozy) and Kevin **Hartwig** (M.S. '08, Lind-Kovacs) welcomed son Jack to their family on September 29, 2014.

Evelyn was born on December 2, 2013 to **Shuang Cai** (M.S., '07, Kirchhoff) and **Xiaoning Li** (M.S. '07, Huang). She weighed 6 lbs. and 9 oz.

Weddings

Camille Lombard (M.S. '13, Griffith) and **Nathan Banek** (M.S. '11, Lind-Kovacs) celebrated their wedding on July 12, 2014 in Paris, France.

Danyang Zhu (Ph.D. candidate, Zhu) and **QinZhe Wang** (Ph.D. candidate, Viola) were married on May 1, 2014 in Toledo.

Career Updates

Supun Wijayasinghe (Ph.D. '14, Viola) is a postdoctoral researcher in the School of Medicine at Washington University in St. Louis, MO.

Tien Ho (Ph.D. '14, Anderson) completed an internship in summer 2013 with Genentech in South San Francisco, CA. Genentech is the largest biotechnology company in the world. He is currently working at AbbeVie in Chicago, IL.

Stephen Zano (Ph.D. '13, Viola) is a postdoctoral research associate at St. Jude's Research Hospital in Memphis, TN.

Ena Archea (Ph.D., '11, Viola) is a Visiting Assistant Professor at the University of Wisconsin-Fond du Lac, WI.

Tamam Baiz (M.S., '07, Schmidt; Ph.D., '10, Lind-Kovacs) will be Chair of Faculty Senate at Mercy College of Ohio effective January 2, 2015.

Geng Gao (M.S., '10, Viola) is a Regional Manager with GenScript, Inc. in Nanjing, China.

Nina Potente (M.S., '10, Viola) moved to San Diego, CA to accept a Research Scientist position with Pfenex, Inc.

Stacy Gates (Ph.D., '08, Lind-Kovacs) is a Senior Scientific Editor & Project Leader-New Projects & ISO Quality Management Representative at International Centre for Diffraction Data in Newtown Square, PA and recently became engaged to Scott Rector.

Julie Boucau (Ph.D. '08, Ronning) is a postdoctoral fellow at Ragon and was a winner of the Postdoc Recognition award by the Massachusetts General Postdoc Association (MGPA). The MGPA serves the MGH postdoctoral community, providing support for research and career related matters and a platform for interaction of postdoctoral research fellows across the hospital.

Amy Gindhart (M.S., '07, Lind-Kovacs) is a Project Leader of Data Entry and Processing and Senior Scientific Editor at the International Centre for Diffraction Data in Newtown Square, PA.

Desheng Liu (M.S., '07, Viola) completed his Ph.D. in the Department of Biology at Miami University in Oxford, OH.

David Monateri (B.S. '07) graduated in spring 2013 *cum laude* from the University of Akron School of Law with a certificate in intellectual property. He passed the bar exam in July 2013 and is employed as a patent attorney at a law firm in Akron that specializes in intellectual property.

Anne Marteel-Parish (Ph.D. '03, Mason/Davies) was hired as Assistant Professor in Chemistry at Washington College in Chestertown, Maryland after graduating from UT. In fall 2009, Anne received tenure and was promoted to the rank of Associate Professor. Anne has been Chair of the Chemistry Department at Washington College since July 2010. She was invested as the Inaugural Holder of the Frank J. Creegan Chair in Green Chemistry on November 3, 2011 and the recipient of the ACS-CEI (American Chemical Society-Committee on Environmental Improvement) Award for Incorporating Sustainability into Chemistry Education on March 27, 2011 at the ACS National Meeting in Anaheim, CA. She also received the Washington College Alumni Association Award for Distinguished Teaching on May 16, 2010. Anne has published numerous articles related to green chemistry research and education, but most importantly, she was the lead author of a textbook titled *Green Chemistry and Engineering: A Pathway to Sustainability* with Martin Abraham, which was released by Wiley and Sons in November 2013.

Condolences

Dr. Kent Kreider, the son of Dr. Henry R. Kreider, Jr. (B.S. '33), died tragically in an automobile accident in Colorado on June 14, 2014.

Masangu Shabangi (Ph.D., '99, Flowers) passed away on March 13, 2014 in Edwardsville, IL where he was an Associate Professor at the University of Southern Illinois at Edwardsville. He is survived by his wife, Lea; sons, Alexandre and Timothée;

mother and nine siblings. He was preceded in death by his father and two sisters. He left a legacy of being a wonderful father, husband, brother, uncle, mentor and friend to many lives he touched.

Awards/Scholarships

The following awards and scholarships were presented at the Spring 2014 Honors Tea:

Alfred F. Foster Health Science Award

Stacy Walker (Fall) and
Paige Bobbit (Spring)

American Chemical Society Division of Organic Chemistry Award

Samantha Lear

Analytical Chemistry Award

RaeLynne MacBeth

Arthur H. Black Award for Analytical Chemistry

William Cole and Jonathan Tomko

Biochemistry Award

Stephanie Angel

CRC Press Freshman Chemistry Achievement Award

Alex Hanes and Zachary Holtzaple

Dean's Medal for Outstanding Graduating Senior

William Cole

Inorganic Chemistry Award

Hannah Placzek

Organic Chemistry Award

Corissa Piatka

Physical Chemistry Award

Nathan Diemler

Arthur H. and Virginia R. Black Merit Scholarship

Nathan Diemler

Elmer R. and Gertrude M. Brigham Arts and Sciences Scholarship

Kimberly Kohler

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

Mariah Trucsinski

Andrew Dollimore Award in Chemistry

James Dunaway

The Chemistry Faculty Scholarship/Scholar

Emily Rady

David R. Hostetler Memorial Scholarship

RaeLynne MacBeth

Henry R. Kreider Scholarship in Chemistry

Omar Badawi, Clayton Rice, Marcus Cluse and Myoung Soo Choi

James A. Poure Scholarship in Chemistry

Jonathan Tomko

CV Wolfe Scholarship in Natural Sciences

Elizabeth Russell

William B. Silverman Scholarship

Lola Massenberg

Outstanding Teaching Assistant

Kevin Clark

Outstanding Graduate Student Research Paper of the Year

Brian Conn, Lorenza Favrot and
Anil Desireddy

Outstanding First Year Graduate Student

Chris Goins

New Alumni August 2013-May 2014)

BA

Eman Al-Hassan
Heather Aristilde
Brice Hastings
Sarvajit Kaur
Ramon Lozada
Nicole Macut
Joshua Smith
Kaleigh Somerville

BS

Yetunde Badmus
Emily Bernath
Anthony Bova
Benjamin Brocker
William Cole
Steven Dajnowicz
Kathryn Davidson
Steven Gurka
Laura Huie
Tyler Kinner
Samantha Lear
Daniel Lemon
Lee Scott
Daniel Styer
Sonita Tem
Sara Vandavelde

MS

Erica Loney

PhD

Nicholas Amato
Anil Desireddy
Jingshu Guo
Chakra Joshi
Manish Joshi
Tianhao Li
Vidhi Mishra
Paul Oshule
Raziya Shaik
Stephen Zano
Supun Wijayasinghe

Recognizing Our Donors

The department recognizes and thanks all donors who generously made gifts during the period of July 1, 2013 to June 30, 2014 fiscal year. Donors are listed alphabetically.

Individual Contributors

Dr. Peter and Tonja Andreaana
 Dr. Amy and Eric Barker
 Dr. Norman and Ellen Barton
 Stephen and Janet Bartus
 Andrew and Elizabeth Black
 Dr. Stephen and Patricia Bollig
 Dr. David Boucher
 Glenn and Carol Cairns
 Dr. James and Cecilia Case
 Dr. John and Alexandra Chrysochoos
 Dr. Joseph and Karen Cotruvo
 Steven Drayer
 Dr. Jimmie Edwards
 Mary Galvin
 Dr. Hua Guo and Dr. Qian-Yun Zhang
 Gerald Gutowski
 Dr. Carl Johnson
 Dr. Jerald and Marcena Katcher
 Dr. Gary Knerr and Jane Bragg
 Dr. Judith and Karsten Lavrich
 Min Liu
 Dr. Eddie Luzik, Jr.
 Dr. and Mrs. Gordon Mather
 Terry and Kelly Moore
 Dr. Ralph Moyer, Jr.
 Dr. Milton Mozen
 Dr. Richard and Joyce Pacer
 Donald Parries, Sr.
 Gary and Shirley Pollman
 Charles Roesch
 Charlotte Shaffer
 Joseph Silverman

Stephen and Janet Silverman
 Mr. and Mrs. Steven Stallard
 Roy and Sheila Stein
 Albert and Deborah Vargo
 Dr. Dana Wise
 Rev. Linda Zaye
 Dr. Thomas Baldwin and Dr. Miriam Ziegler
 Jim Zubricky III

Industrial and Organizational Supporters

P212121, LLC
 Pittsburgh Plate Glass Industries Foundation
 Organic Synthesis, Inc.
 Quanta BioDesign, Ltd.

Chemistry Endowed Funds

Donors to the university can designate their contributions 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

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

Dollimore Award Fund

Organic Chemistry Progress Fund

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.

Give a Gift, Make a Difference!

Please join other alumni in supporting education and excellence in the Department of Chemistry and Biochemistry at The University of Toledo!

For more information about giving, including setting up scholarships or additional gift funds, please contact Mary Galvin, principal gifts officer for the College of Natural Sciences and Mathematics, at 419.530.4134 or mary.galvin@utoledo.edu.

I would like to make a GIFT/PLEDGE in the amount of:

\$1,000 \$500 \$250 \$100 Other \$ _____

Please designate my gift to the following fund:

- Arthur H. Black Professorship (1301088)
- Chemistry Progress Fund (1300170)
- Frontiers in Chemistry Lecture Series (1300202)
- Chemistry Faculty Scholarship (1300528)
- ACS Student Group (2401307)
- William Silverman Chemistry Scholarship (1301099)
- Henry R. Krieder Scholarship (1300029)
- Undergraduate Research in Chemistry Fund (2400557)
- Other _____

Payment Options:

- Enclosed is a check made payable to the UT Foundation
- Charge my: Visa MasterCard American Express

Card #: _____ Exp. Date _____

Signature: _____

- I am making a pledge to be paid in installments. Please bill me:

Annually Quarterly Semi-annually Monthly

Start Date: _____ Installment Amount: _____

Matching Gift:

- My company / My spouse's company: _____ will match the gift

Please include a completed matching gift form from your HR office.

Personal Information:

Name: _____

Address: _____

City, State: _____ Zip: _____

Phone: _____ Email Address: _____

Make your gift online at: give2ut.utoledo.edu

AG2015-CHEMISTRY-NEW

Thank you for supporting The University of Toledo.

Gifts to the UT Foundation are tax-deductible as provided by law.

The University of Toledo Foundation | PO BOX 586 | Toledo, OH 43697-0586 | 419.530.7730



THE UNIVERSITY OF
TOLEDO
1872

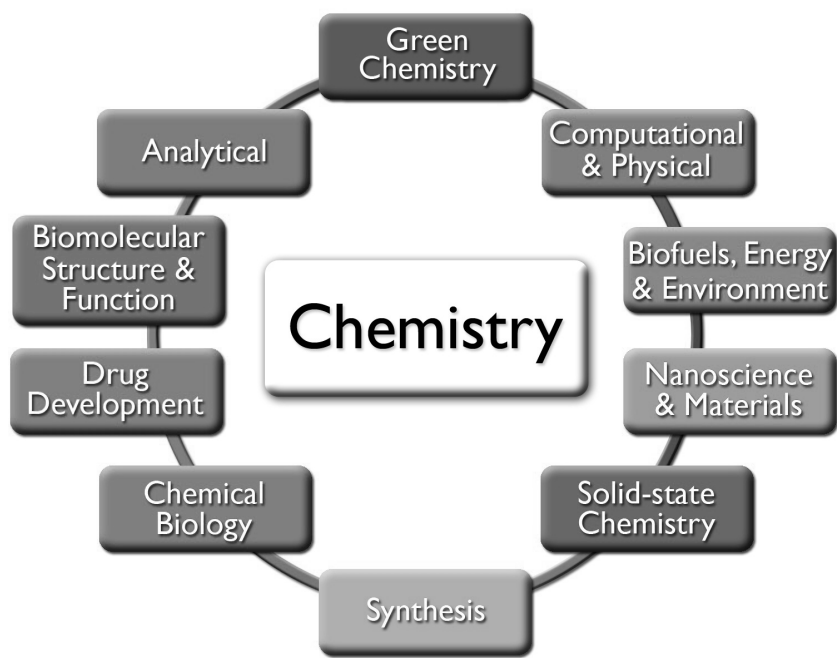
**Department of Chemistry
and Biochemistry**

The University of Toledo
2801 W. Bancroft St.
Toledo, OH 43606-3390

Non-Profit
Organization
**U.S. POSTAGE
PAID**
Toledo, OH
Permit No. 161

CHEMISTRY NEWS ISSUE No. 22

March 2015



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 also can be emailed to utchem@utoledo.edu. In addition, check out the department's website at utoledo.edu/nsm/chemistry/index/html.