

CHEMISTRY

SPRING 2019

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at UGA

Welcome from the Head

Greetings from the Department of Chemistry!

It's been a busy year for our department, and we have a great deal to report. First and foremost is that construction has begun for STEM-I, the research building that will house Chemistry and Engineering. The university held a ground-breaking ceremony in November, which you can read about in this newsletter. This will be the first of two 100,000 square foot STEM buildings, and is scheduled for occupancy in 2021. The legislature is now considering planning funds for STEM-II, with the hope that its construction could overlap with STEM-I, and open 1-2 years later. The building is being designed to foster collaborative and interdisciplinary research, with interaction space on each floor, near laboratories and offices. It will be three stories tall, with core facilities (NMR, mass spectrometry, X-ray diffraction, and scanning electron microscopy) housed on the first floor. This building will have significant and long-lasting positive impact on the research enterprise of our department.



Prof. Jon Amster

Our faculty continue to have great success in obtaining funds from federal and private sources in support of research. Fiscal year 2018 was our best ever year in terms of grants, with our faculty bringing in over \$7M in support, which represents a doubling of our annual funding over the last decade. This fiscal year promises to be even better, with two major instrument grants received for new EPR and mass spectrometers, reported in this newsletter. The New Materials Institute, founded by Prof. Jason Locklin in 2016, was recently selected as one of three sites for an NSF Center for Bioplastics and Biocomposites. In addition to grant success, our faculty continue to be recognized in other ways for their research achievements. As you can read about in this newsletter, Prof. Fritz Schaefer was selected to receive the Gold Medal of the American Institute of Chemists.

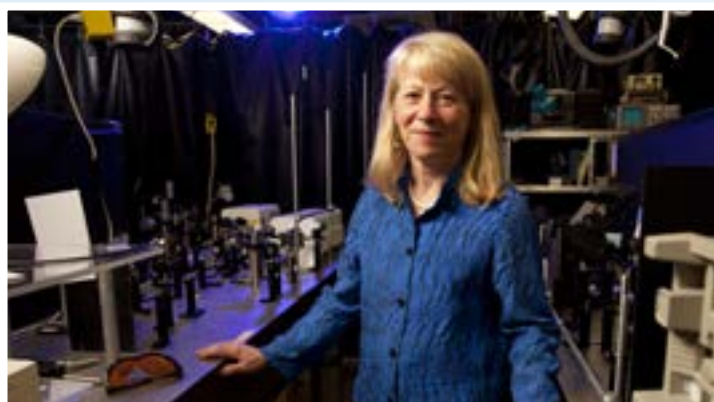
Several faculty members will retire by the end of this academic year. Prof. Norb Pienta retired at the end of December, 2018. Norb came to UGA in 2012, to direct our General Chemistry program. He is a nationally and internationally recognized expert in Chemical Education, and has served as Editor-In-Chief of the Journal of Chemical Education for almost a decade. In addition to Norb, John Stickney, George Majetich, and Wesley Allen plan to retire at the end of the spring 2019 semester. We will highlight their career achievements in our next newsletter. These retirements create openings which we plan to fill over the next year or two. We are presently completing searches for assistant professors in both organic and analytical chemistry. In addition, we have recently recruited a senior level organic chemist, Prof. David Crich, presently the A. Paul and Carol C.

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Please Join us for the 2019 Alumni Weekend!

Alumni Lecture on Friday, April 26th
Golf Scramble on Saturday, April 27th

Call: 706-542-1919 or Write: head@chem.uga.edu to sign up.



Prof. Geraldine Richmond, University of Oregon.

The 2019 Chemistry Alumni Lecture will be given on Friday afternoon April 26 in the Chemistry Department by Prof. Geraldine Richmond from University of Oregon. Following the 3:30 lecture in the Chemistry Building, there will be a social hour (6:00) and then the evening Alumni Awards Banquet (7:00) at the Georgia Center on campus. It will include the presentation of student and faculty awards for the Chemistry Department as well as those for the Northeast Georgia Section of the ACS. The Distinguished Alumnus Award will be presented to Michael Scarbrough (B.S. 1987). There is no charge for the lecture or banquet. On Saturday afternoon April 29, we will have the Chemistry Golf Scramble at the UGA course, followed by a barbecue at the golf course clubhouse. Please plan to join us for these fun weekend events. To make a reservation, please contact the Chemistry Department Head's Assistant at 706-542-1919.

Geraldine (Geri) Richmond is the Presidential Chair in Science and Professor of Chemistry at the University of Oregon where she has been since 1985. A native of Kansas, she received her undergraduate degree in chemistry from Kansas State University and her Ph.D. in physical chemistry from the University of California, Berkeley. Her research examines the chemistry and physics that occurs at complex surfaces that have relevance to important problems in energy production, environmental remediation and atmospheric chemistry. Using a combination of laser-based methods and

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Schaap Professor of Organic Chemistry at Wayne State University. David will move to UGA this coming summer, and will be a faculty member in both the College of Pharmacy and the Department of Chemistry. We aspire to hire at the pace of two new faculty per year for the next few years.

Hiring new faculty is an expensive and competitive proposition, and identifying sources of these funds remains the biggest challenge in creating new faculty positions in Chemistry. Please consider making a donation that we can use for faculty recruiting, or for any other research, teaching, or training activity in which you may wish to invest. We are grateful for the generous donations that we receive from our alumni. Please feel free to drop in and visit the Department of Chemistry whenever you are in Athens. I hope that you will consider visiting us for the Alumni Lecture & Banquet on Friday, April 26th, the annual golf tournament on Saturday, April 27th, or for the Allinger Lecture this coming fall. ●



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A l u m n i W e e k e n d ...from page 1

theoretical simulations her most recent efforts have focused on understanding environmentally important processes at water surfaces. Over 200 publications have resulted from the studies conducted in her laboratory with undergraduate, graduate students and postdoctoral associates.

Richmond is a member of the National Academy of Sciences and a Fellow of the American Academy of Arts and Sciences. Awards for her scientific accomplishments include the National Medal of Science, the Priestley Medal of the American Chemical Society (ACS), the Linus Pauling Medal Award, the ACS Olin-Garvan Medal, the ACS Joel H. Hildebrand Award, and the American Physical Society (APS) Davisson-Germer Prize in Surface Physics and the 2018 ACS Priestley Medal. She is a Fellow of the American Chemical Society, the American Physical Society, the American Association for the Advancement of Science (AAAS), the Association for Women in Science (AWIS), and the Society of Applied Spectroscopists (SAS).

Richmond has held numerous leadership roles in the national and international scientific arena throughout her career. She is currently serving on the National Science Board (Obama appointee) and is Secretary of the American Academy of Arts and Sciences. She has recently served as U.S. State Department Science Envoy to the SE Asian Lower Mekong River countries of Thailand, Myanmar, Cambodia, Vietnam and Laos (Kerry appointee) and is the recent president and Chair of the Board of the American Association for the Advancement of Science (AAAS). A strong advocate throughout her career for diversity in the scientific workforce, Richmond is the founding and current Director of COACH, a grass-roots organization formed in 1998 that has helped in the career advancement of over 20,000 women scientists and engineers in the U.S. and in over 20 developing countries in Asia, Africa and Latin America. Awards for these education, outreach and science capacity building efforts include the Presidential Award for Excellence in Science, Mathematics and Engineering Mentoring, the ACS Award for Encouraging Women in the Chemical Sciences and the ACS Charles L. Parsons Award. ●



Dr. Patrick J. Scannon and Prof. John P. Maier

2018 Alumni Lecture and Banquet

The UGA Chemistry Department held its annual Alumni Lecture and Awards Banquet on Friday, April 27, 2018, at the UGA Georgia Center. The Alumni Lecture was presented by Prof. John P. Maier from the University of Basel, Switzerland, on the topic of "The Discovery of C_{60}^+ Cations in Interstellar Space."

Professor Maier is an internationally known expert in the spectroscopy of radicals, ions, carbon clusters, and interstellar molecules. He has held the position of Chair of Physical Chemistry at the University of Basel since 1992. He has won many international honors and awards for his work, and was elected Fellow of the Royal Society, London in 1999. He and his research group garnered international acclaim in July 2015 when they measured the laboratory UV-VIS spectrum of the C_{60}^+ ("Buckyball") cation at high-resolution for the first time and demonstrated that it matches two previously unassigned interstellar lines (Nature 523, 322(2015)). This confirmed the long-held belief that fullerenes are present in interstellar space.

Dr. Patrick Scannon of Berkeley, California was awarded the 2018 Distinguished Alumnus Award for UGA Chemistry. Scannon graduated from UGA with a B.S. Chemistry degree in 1969. He did undergraduate research with Prof. John Garst. After completing ROTC at UGA, he underwent officer basic training at Fort Bragg, NC, becoming a 2nd lieutenant in the US Army. Placed on inactive reserves, he immediately headed west to UC-Berkeley and received a Ph.D. in 1972 in Organic Chemistry under Prof. Andrew Streitwieser. Combining his interests in chemistry and human biology, he completed his MD in 1976 at the Medical College of Georgia and his residency and board certification in internal medicine in 1979 while on active duty at Letterman Army Medical Center in San Francisco. He spent two years at the Letterman Army Institute of Research, developing chemical cross-linking technologies for stabilizing human hemoglobin, as a potential artificial blood substitute. He completed his time in the US Army as a major in its medical research and development command.

Becoming interested in the applications of monoclonal antibody technologies, Dr. Scannon founded XOMA Corporation (<http://www.xoma.com>) in 1981, participated in taking the company public in 1986, and served for 35 years as its chief scientist and a member of the board of directors, retiring in 2016. XOMA's laboratories developed and patented numerous antibody products and methodologies which have been licensed or acquired by major pharmaceutical companies and incorporated into several FDA approved products. He is inventor or co-inventor on multiple U.S. and ex-U.S. patents, and has published numerous scientific papers.

Dr. Scannon was elected to and served on the Defense Sciences Research Council (1998-2013) for the Defense Advanced Research Projects Agency (DARPA), concentrating on rapid national responsiveness to bioterrorism. He received an appointment from President G.W. Bush to serve on the Department of Defense's Threat Reduction Advisory Board (2001-2009) and an appointment from Health & Human Services Secretary Kathleen Sebelius to serve on the National Biodefense Research Council (2007-2013).

Dr. Scannon is currently President and Founder of The BentProp Project (a 501(c)(3) non-profit, <http://www.bentprop.org>), searching since 1993 for American military Missing in Action and Prisoners of War primarily from WWII. In 2016 he used a generous private donation and helped to create Project Recover (<http://www.projectrecover.org>) with members from Scripps Institution of Oceanography (Eric Terrill, PhD) and University of Delaware (Mark Moline, PhD) which has now expanded their MIA and POW searches globally. Numerous articles have appeared about BentProp's activities, including a 60 Minutes piece with Anderson Cooper, "A Forgotten Corner of Hell", as well as a book "Vanished" (Penguin Random House) written by New York Times journalist, Wil Hylton. (<http://www.cbsnews.com/news/a-forgotten-corner-of-hell-bentprop-in-palau/>).

Dr. Scannon is married. He has one daughter and three goats. ●



L-R: Bob Scott, Mike Johnson, Eric Ferreira, Je Sherman, Mike Easterling, Paul Speir, Caitlin Cato, Vladimir Popik, Jon Amster, Amanda Frossard, Robbie Phillips, Tina Salguero, Mike Duncan, Greg Robinson, Je Agar, Fritz Schaefer, Jason Locklin

Ground-Breaking for the New I-STEM Building

The groundbreaking for the new Interdisciplinary Science, Technology, Engineering and Math Research Building, I-STEM-I took place in the afternoon of November 27, 2018, on a cold and windy day. The new building will house research teams from both the Chemistry Department and the Engineering College, and is strategically designed to facilitate collaboration between students, faculty, and researchers. STEM-I construction is now underway, and is anticipated to be completed in two years. It will be followed in 2-3 years by its partner, STEM-II, located adjacent to STEM-I and connected to it by a common entrance hall.

The \$65 million facility is made possible by \$39.4 million in state support. It will be located on UGA's South Campus near other buildings that house STEM researchers, and will promote interdisciplinary research to address the needs of industry and government agencies. It will also enhance the state of Georgia's economic development. Dr. Eric Ferreira, an Associate Professor in Chemistry, said "The STEM-I Building is designed to strengthen research efforts in both chemistry and engineering at UGA. Research groups with related and complementary expertise and skillsets will be located together in this building, where we'll be poised to respond quickly to future challenges in science and dynamic interactions will become more the norm. It should become an exciting place for future scientific and technological developments."

STEM-I is Chemistry's first new research building in over 20 years, and will be the anchor of a new science quadrangle on the UGA campus. Dr. Jon Amster, Head of the Department of Chemistry, observed that "The STEM-I building will provide an enormous improvement over our existing lab facilities. It will empower our faculty to pursue new and innovative research programs that will deliver valuable benefits to business, healthcare, and government for decades to come." The facility will expand laboratories for chemistry, engineering and other material sciences, offer undergraduate research opportunities, and expose graduate students to projects with real-world relevance.

The ceremony was held at the construction site on East Campus Road, just south of the intersection with Cedar Street.

Speakers included:

Jere Morehead, *UGA President*
 Alan T. Dorsey, *Dean, Franklin College of Arts and Sciences*
 Donald J. Leo, *Dean, College of Engineering*
 Mr. Jitendra Pant, *Ph.D. student in Biomedical Engineering*
 Ms. Caitlin Cato, *Ph.D. student in Chemistry*

Alumni in attendance included Je Sherman (Ph.D., 1990), Paul Speir (B.S., 1988; Ph.D., 1993), Mike Easterling (Ph.D., 1999) and Je Agar (Ph.D., 2000), along with many students, faculty, staff, and friends of the department.

As of this writing, the construction of STEM-I is well underway. It is anticipated that it will open in about two years. After this, construction will begin on the second phase of the project, known as STEM-II, which should take yet another two years or so for completion. ●



Artist's conception of the STEM-I (left) and STEM-II (right) complex. The intersection of Cedar Street and East Campus Rd. is shown in the background, and the present Biosciences Building is shown at the lower right.



Professor David Crich

Prof. David Crich was hired recently as a Georgia Research Alliance (GRA) Imminent Scholar, with partial appointments in both the UGA Chemistry Department and the UGA School of Pharmacy. Prof. Crich has been in the Chemistry Department at Wayne State University since 2007, where he was Schaap Professor of Organic Chemistry.

Crich was born and raised in Chesterfield, England. He graduated from the University of Surrey in 1981 before joining the group of Sir Derek Barton at the Institut de Chimie des Substances Naturelles (ICSN) in Gif sur Yvette, France. Under Barton he learned the rudiments of free radical chemistry and was responsible for the development of the Barton decarboxylation reaction, for which he was awarded the degree of Docteur des Sciences by the Université de Paris XI (Orsay) in 1984.

After a further year at the ICSN as postdoc with Barton and ICSN Lab Director Dr. Pierre Potier, he took up a "new blood" lectureship in chemistry in the Christopher Ingold Laboratories of University College London. After five years at UCL working in the areas of diastereoselective free radical chemistry, acyl radical chemistry, enantioselective synthesis of α -disubstituted amino acids, and carbohydrate chemistry, Crich moved to the University of Illinois at Chicago (UIC) where he stayed seventeen years, rising to the rank of Liberal Arts and Sciences Distinguished Professor of Organic Chemistry. Work at UIC focused on the development of new stereo controlled methods for glycosidic bond formation and their application in oligosaccharide synthesis, the chemistry of free radicals and of alkene radical cations, and the development of environmentally benign reagents for organic synthesis. In 2007 Crich relocated to Wayne State University in Detroit as the Schaap Professor of Chemistry, before taking up the position of Director of the ICSN in Gif-sur-Yvette in 2009. Crich returned to Wayne State as the Schaap Professor in 2011 and leads a group working in the areas of glycochemistry, organic reactivity and antibiotic chemistry.

The underlying theme of much of Crich's work is the symbiosis of mechanism and methodology/synthesis with careful physical organic studies underpinning much of the synthetic work to appear from his laboratory. His more than 320 published papers cover areas as diverse as the total synthesis of alkaloids, the development of new glycosylation methods, catalysis of radical reactions, and improved methods for peptide synthesis. His work has been recognized with

the first Franco-British prize of the Académie des Sciences in 1989, the Corday Morgan Medal in 1990, the RSC Tate and Lyle Carbohydrate Chemistry Prize in 1994, the Fellowship of the A. P. Sloan Foundation in 1994, the Wolfram Award of the American Chemical Society Carbohydrate Division in 2008, and the American Chemical Society A. C. Cope Scholar and European Carbohydrate Society Emil Fischer Awards in 2011. Crich currently serves as the Editor-in-Chief of the Electronic Encyclopedia of Reagents for Organic Synthesis (e-EROS).

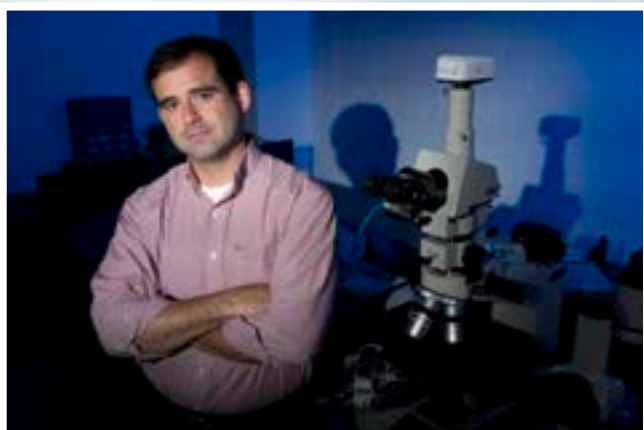
Dr. Kelly Hines graduated from the University of Florida with a B.S. in Chemistry and completed her Ph.D. at Vanderbilt University with Prof. John A. McLean. During her graduate work, Dr. Hines developed ion mobility-mass spectrometry (IM-MS) methods for the identification of metabolite, lipid, and peptide biomolecular signatures of disease from complex biological samples. After receiving her Ph.D. in 2014, Dr. Hines completed



Assistant Professor Kelly Hines

a one-year postdoctoral fellowship in the Mayo Clinic Regional Metabolomics Core where she established quantitative MS methods for lipidomics and protein metabolism using isotope labeling. In 2015, Dr. Hines joined the lab of Prof. Libin Xu at the University of Washington. Her work in the Xu Lab focused on the development of IM-MS methods for lipidomics, high-throughput IM-MS measurements of drugs and small molecules, and the significance of lipids in human diseases, environmental exposure and antibiotic resistance. At UGA, the Hines Lab will develop IM-MS platforms for the study of human health concerns, including antibiotic resistance, at the molecular level with the goal of translating these methods and findings into the clinical setting. She will be teaching in the Analytical Chemistry program. ●

New Materials Institute Joins NSF-funded Center for Bioplastics and Biocomposites



Prof. Jason Locklin

The UGA New Materials Institute has been selected as the third site for the National Science Foundation's Center for Bioplastics and Biocomposites, or CB2, an Industry/University Cooperative Research Center. The UGA effort in this area is spear-headed by Prof. Jason Locklin, Director of the New Materials Institute, Professor of Chemistry, and Professor of Chemical, Materials, and Biomedical Engineering. UGA will join Iowa State University's Biopolymers & Biocomposites Research Team and Washington State University's Composite Materials and Engineering Center - the two founding members of CB2. Industry partners include Ford, Hyundai, John Deere, 3M, Myriant and Archer Daniels Midland.

As a CB2 partner, the New Materials Institute will contribute additional capabilities in the areas of biodegradable polymers and additives, advanced fibers, durable coatings and finishes including foams, nonwoven fibers, and novel thermoplastics with excellent barrier properties for films, sheet goods and filtration media. New polymers, biodegradable materials, coatings and interfaces have been the focus of work at the New Materials Institute since its founding in 2016.

"The field of new and sustainable materials has quickly become one of the University of Georgia's research strengths as we look for innovative ways to leave a healthier planet for future generations," said David Lee, UGA vice president for research. "This CB2 award fits with our strategy of developing effective partnerships with colleagues in both academia and industry to move this critical field forward, and I'm excited about the new opportunities for research collaborations that this partnership will bring."

Global plastic production reached 299 million metric tons in 2014. About 40 percent of all plastics manufactured annually are used in packaging, which is immediately discarded after use. An estimated 5 to 12 MMTs of mismanaged plastic waste reaches the oceans annually, but this is expected to rise to as much as 17 MMTs annually by 2025 due to increasing population, plastic consumption and waste generation. The UGA New Materials Institute is committed to preventing waste through the design of materials and systems that adhere to green engineering principles. The Institute partners with industry and businesses to design materials for their use that are bio-based, fully biodegradable, or completely recyclable and safe for people, animals and our planet. In addition, it works with businesses, governments, foundations and other organizations to redesign systems so that they generate less waste and promote circularity in materials management. The New Materials Institute is also shaping the future by training the next generation of scientists and engineers on the importance of considering green engineering design principles in everything they do. ●

Fritz Schaefer to Receive American Institute of Chemists Gold Medal



Prof. Fritz Schaefer

Prof. Henry F. Schaefer III has been selected to receive the 2019 American Institute of Chemists (AIC) Gold Medal. First presented by AIC in 1926, the Gold Medal is the AIC's highest award. It recognizes service to the science of chemistry and to the profession of chemistry or chemical engineering in the United States. Previous winners include a number of Nobel laureates such as Glenn T. Seaborg and Herbert C. Brown, as well as other renowned researchers and scientists representing the many facets of the world of chemistry. Recent medalists include Ronald Breslow, Jacqueline Barton, Chad Mirkin, Stephen Lippard and Gerald Meyer.

Professor Schaefer is currently Graham Perdue Professor of Chemistry and Director of the Center for Computational Quantum Chemistry at UGA. His research involves the use of state-of-the-art computational hardware and theoretical methods to solve important problems in molecular quantum mechanics. ●

Harrop/Johnson Team Receives NSF Instrumentation Grant



Profs. Todd Harrop and Michael Johnson of the UGA Chemistry Department have been awarded a grant of \$343,686 from the Major Research Instrumentation program of the National Science Foundation. This program serves to “increase access to multi-user scientific and engineering instrumentation for research and research training in our Nation’s institutions of higher education.” The program provides an avenue for research teams to acquire advanced instrumentation that is vitally important to achieving advances in fundamental science and engineering research.

The grant will fund the acquisition of a Bruker EMXplus EPR spectrometer that will impact research across the campus in numerous fields including chemistry (synthesis of inorganic and organic molecules), materials science (solid-state polymeric or nanomaterials), and biology (metalloenzymes and metalloproteins). The grant will also enhance the research training of students who will become the next generation of instrument users, designers and builders.

Their proposal was awarded after critical peer evaluation against 863 competing academic proposals. ●

Jon Amster Team Receives NIH Instrumentation Award

The National Institutes of Health has awarded University of Georgia researchers \$1.956 million for a high-resolution Fourier transform mass spectrometer (FT-MS) that will enhance capabilities for scientists in many fields across campus.

The award by the NIH High End Instrumentation program, which provides grants in the range of \$600,000 to \$2 million for a variety of expensive instrumentation, including MRI imagers, electron microscopes, DNA sequencers, and mass spectrometers, was one of 30 awards made in the program, and one of only six mass spectrometer requests funded in the 2018 cycle.

The grant funded a 12 Tesla Bruker Solarix FT-MS, a spectrometer capable of measuring molecular weights with much-enhanced mass resolution that can be applied to molecules ranging in size from small metabolic products to intact proteins and protein complexes. It can also provide molecular structure through a multidimensional analysis method known as tandem mass spectrometry. The instrument will be used to support research in metabolomics and glycomics, the analysis of genetic, physiologic and pathologic aspects of sugar molecules involved in all biological process from modulating cell function to determining cancer development.

“This instrument will enhance the research capabilities for a number of scientists in chemistry, the biological sciences and biomedical research, and will help foster interdisciplinary research projects between groups in a number of departments at the university,” said Jon Amster, Professor and Head of the Department of Chemistry and principal investigator on the grant.

Over a dozen researchers will be major users of this instrument, which will be housed in the Amster laboratory in the Department of Chemistry.

“The new 12T FT-ICR instrument will greatly improve our ability to perform metabolomics analysis, especially regarding to the identification of unknown metabolites, since this instrument has higher accuracy and resolving power than the current

instruments at UGA,” said Belen Cassera, Associate Professor of Biochemistry and Molecular Biology, member of the Center for Tropical and Emerging Global Diseases, and co-principal investigator on the grant. “This type of grant can be particularly difficult to obtain and it is a privilege for me to be part of an amazing team of investigators that put together this application.”

“Virtually every metabolomics project we have going right now will benefit from this new instrumentation grant,” said Art Edison, GRA Eminent Scholar, Professor of Biochemistry and Molecular Biology, and a co-principal investigator on the grant. “High resolution mass spectrometry is a very important tool for the analysis of complex biological mixtures and unknown metabolite identification in applications ranging from human disease to carbon cycling in the ocean to model organisms for pathway analysis.”

Of the 104 NIH shared instrumentation grants made during 2018, only 10 were in the range of \$1.9 million to \$2 million. ●



Lauren Bowman Receives Peggy Norman Award



Lauren Bowman was awarded the 2019 Peggy Norman Award for staff excellence. Lauren joined the Chemistry Department in June of 2013, when she became the Administrative Assistant for the Department Head. She worked in this capacity until July of 2015, when she became the Graduate Program Administrator. In this role, she acted as the primary point of contact between graduate students and the department during their recruitment and enrollment in the program, and then acting to track their progress through the many hurdles of graduate school. Lauren has been efficient and conscientious throughout her work and a real pleasure to interact with.

Lauren left the Chemistry Department at the end of February 2019 to pursue her goal of becoming a freelance writer. She will be working as a travel writer for TravelPulse.com <https://www.travelpulse.com/bio/lauren-bowman>.

This award is given in honor of Ms. Peggy Norman, who worked in various capacities within the department for 35 years before her retirement in 2004. Peggy was one of the most hard-working and well-loved staff members the Department ever had. Her colleagues and friends were deeply saddened at her untimely death from cancer in September 2007, just a short time after her retirement. ●

AAAS Workshop Award to Chemistry Graduate Student



Cynthia Tope

Cynthia Tope, a graduate student in the UGA Chemistry Department, has been awarded a sponsorship by the UGA Graduate School to attend the 2019 Catalyzing Advocacy in Science and Engineering (CASE) workshop hosted by the American Association for the Advancement of Science. Cynthia is currently a third-year student under the direction of Prof. Jeffrey Urbauer. She is one of only two UGA graduate students to be awarded this sponsorship.

During this three-and-a-half-day program, which will take place March 24-27 in Washington, DC, Cynthia will learn about the structure and organization of Congress, including the federal budget and appropriations processes. Through interactive seminars, participants learn about policy-making and communication, gaining tools for effective science communication and civic engagement. On the last day of this program, Cynthia will have the opportunity to put these skills into practice and meet with Georgia-elected Members of Congress and their congressional staffs to advocate for STEM-related issues. ●

Alanna Koritzke Awarded a Dwight David Eisenhower Fellowship



Alanna Koritzke, a second-year Ph.D. student working with Prof. Brandon Rotavera, was awarded a Dwight David Eisenhower Fellowship from the U.S. Department of Transportation in December of 2018. The program awards annual fellowships to students pursuing careers in transportation-related fields, including science and engineering, business, law, and public policy. Alanna was awarded the fellowship for her research that focuses on the need for fundamental chemistry research on biofuel oxidation chemistry and the subsequent impact on the transportation sector. Her primary aim involves investigating functional group effects on reaction mechanisms of biofuels, such as diethyl ether and butanone, using a high-pressure turbulent flow reactor equipped with multi-dimensional gas chromatography/mass spectrometry/absorption spectroscopy, which enables isomer-resolved speciation measurements. As part of the award, Alanna traveled to Washington D.C. in January 2019 for the Transportation Research Board Annual Meeting. ●

Department of Chemistry Student Awards 2018

The UGA Chemistry Department presented its annual awards at the spring Alumni and Awards Banquet on Friday April 27, 2018 at the UGA Georgia Center. This banquet was held jointly between Chemistry and the Northeast Georgia Section of the ACS.

Undergraduate Student Awards

Presented by Prof. Richard Morrison

Pamela Ann Henkel Award – for the most outstanding undergraduate student in organic chemistry:

James Mull

Alfred W. Scott, Sr. Award – for the most outstanding rising senior ACS certified Chemistry major:

Corbin Farr

L.B. "Buck" Rogers Award – for the undergraduate student that performs the most outstanding research in Chemistry over the last year:

Caroline Glessner



Prof. Richard Morrison and Corbin Farr

Graduate Student Awards

Presented by Prof. Gregory Robinson

Martin Reynolds Smith Award – for the graduate student who published the best research paper in a refereed journal:

Phan Truong

Kenneth W. Whitten Awards – for the graduate students who are our best Graduate Laboratory Assistants:

Matthew Seivert and Ian Delahunty

Outstanding Graduate Teaching Assistants

Awarded by the UGA Center for Teaching and Learning

**Ian Delahunty, Emma Carine Iradukunda,
Jin "Jeremy" Jung, Kale King,
Harshani Rathnaweera, Aarya Venkat,
and DeMichael Winfield**

Northeast Georgia Section, American Chemical Society Awards 2018

Presented by Dr. Joe Grubbs



Prof. Greg Robinson, Matthew Seivert, Ian Delahunty, Prof. Ken Whitten

NEGS-ACS Chemist of the Year for Service

Prof. Richard Morrison

Department of Chemistry, UGA

For his distinguished service to the section as past chair.

NEG-ACS Chemist of the Year for Research

Evan White

Department of Chemistry (New Materials Institute), UGA

For his research on the development of substrate modifications to create permanently attached super-hydrophobic surfaces.

**George Philbrook Award for
Outstanding Undergraduate Teaching**

Dr. Suzanne Ellenberger

Department of Chemistry, UGA

For her superior teaching style in General and Organic Chemistry and her innovations that have benefited both programs.

**NEGS-ACS Award for Outstanding
High School Teacher of the Year**

Shelly Dowse

Lumpkin County High School, Dahlonega, GA

For excellence in planning and presenting lessons and labs for Chemistry and Honors Chemistry using a variety of instructional methods tailored to meet the needs of her students.

NEGS-ACS Outstanding Graduate Student of the Year

Li Chen

Department of Chemistry, UGA

NEGS-ACS Outstanding Undergraduate Student of the Year

Benjamin Bridges

Department of Biochemistry and Molecular Biology, UGA



Addyson Cord, Raven Henry, Laura Moeller, Emerson Buck, Caroline Glessner, David Bishop, Matthew Murdock, Hannah Gilbert, Brianna Blevins, Rachel Downs, Jenny Tran, Christian Cremo, Sean Dunham, Zainab Agboola, Daniel Powell, Khadar Haroun, Noah Carlisle

Chemistry Department Graduation Reception

The Chemistry Department hosted a graduation reception on Friday, May 4 in the Science Learning Center. 17 of the 32 graduates for this year's class were in attendance. This year's class included four students who graduated Summa Cum Laude (GPA>3.9), 10 who graduated Magna Cum Laude (GPA>3.7) and four who graduated Cum Laude (GPA>3.5). The members of the 2018 graduating class are listed in the box to the right, with the Summa Cum Laude graduates listed in bold.

Zainab Oluwatosin Agboola

Jonathan David Bishop
Brianna Diane Blevins
Emerson William Buck
Noah Simmons Carlisle
Addyson Eileen Cord
Christian Patrick Cremo
Rachel Elizabeth Downs
Sean Duncan Dunham
Caria R. Evans
Hannah Rosemary Gilbert
Caroline Elise Glessner
Khadar Abdi Haroun
Raven M. Henry
Diana Larios-Coxaj
Robert V. Le

En J. Lee
Xueying Li
Richard Lin

Laura Elizabeth Moeller
Matthew Alexander Murdock
Alexander Albert Newell
Jimmy Nguyen
Ansh A. Patel
Daniel Carey Powell
MacKenzie Claire Smith
John Christopher Soulaokos
Jonathan Clayton Spagnoli
Jenny Tran
Andrew Sayeed Wanna
Nicholas David Weinand
Darby Lyle Woodling

Other News Items:

Professor Jon Amster, Department Head of Chemistry, was approved for appointment as Distinguished Research Professor. This appointment is one of the highest honors for research awarded to UGA faculty by the institution. The appointment recognizes Amster's distinguished career in the field of Fourier transform mass spectrometry (FT-MS) and its applications to a variety of problems in biological systems. The award includes a salary raise and a discretionary funds account for his research. The award will be presented at the Annual Research Awards Banquet in April 2019.

Professor Michael Duncan is the 2019 Chair of the Physical Chemistry Division of the American Chemical Society. The division is responsible for organizing the program at regional and national meetings, and for the selection and presentation of various awards in the Physical Chemistry area. Duncan was Vice-Chair-Elect in 2016, Vice-Chair in 2017, Chair-Elect and Program Chair in 2018, and now Chair in 2019. The primary concerns for the Chair are the chances of sponsoring symposia at regional and national meetings and also those for national awards.

Graduate student Andrea Bootsma from the Steven Wheeler group won the Best Poster Award at the 2018 Reactions Mechanisms Conference at the University of British Columbia.

Professor Fritz Schaefer became Distinguished Visiting Professor at the Indian Institute of Technology in Bombay for two years beginning last October. He spent a week there in December 2018 and will probably spend another week in December of 2019.

Professor Gary Douberly was promoted to Full Professor in the spring of 2018. Douberly is a Physical Chemist working on the infrared laser spectroscopy of free-radical combustion intermediates isolated in the environment of liquid helium droplets.

Professor Jason Locklin was promoted to Full Professor in the spring of 2018. Locklin is a Organic/Polymer Chemist working on new biodegradable plastics, and is Director of the New Materials Institute.

Professor Todd Harrop was promoted to Full Professor in the spring of 2019. Harrop is an Inorganic Chemist focusing on transition metal complexes and biological metal centers.

Dr. Suzanne Ellenberger has been appointed as Interim Director of General Chemistry, replacing Prof. Norb Pienta on his retirement. ●

Prof. Norbert Pienta Retires



Prof. Norbert J. Pienta, Director of General Chemistry, retired at the end of fall semester 2018. Norb joined the faculty in the Department of Chemistry in August 2012 after moving to UGA from the University of Iowa, where he was Professor and Director of Undergraduate Studies. Pienta earned his Bachelor of Science at the University of Rochester (1974), his Ph.D. at the University of North Carolina at Chapel Hill (1978) and did postdoctoral work at the University of Pittsburgh (1978-80). He started his academic career at the University of Arkansas working in physical organic chemistry, using photochemistry and photophysics to study organic reactive intermediates (i.e., carbocations and radical ions) and the effects of solvents, including the use of organic molten salts. He was tenured and promoted to Associate Professor in 1985. In 1989, he returned to UNC-CH and subsequently switched his focus to chemical education, developing laboratory curricula for chemistry majors and software for general and organic chemistry students. Pienta expanded his scholarship to include research in chemical education in a subsequent move to the University of Iowa in 1999, where he was promoted to full professor. His efforts included redesign of the two semester general chemistry curriculum, serving as co-author for the ACS textbook, *Chemistry in Context*, serving as an editor for two monographs (*The Chemists' Guide to Effective Teaching*, Vol I-II), and serving as the Editor-in-Chief of the *Journal of Chemical Education* since 2009. At Iowa, he won both the College of Liberal Arts and Sciences Teaching Award and the President's and Provost's Teaching Award.

Prof. Pienta's research interests include the use of computer based instruction, student problem solving in word problems, and students' understanding of molecular representations and spectral data. To study student approaches to problems, Pienta, his students and his research associates have designed, created and collected data with browser-based software. These have included a tool to draw Lewis structures using drag-and-drop components and another tool where spheres represent atoms in molecules. They have been used to examine students' understanding of the particulate nature of matter. In addition, they have examined sets of variables (e.g., format of numbers, unit conversions, and extraneous information) in gas law and stoichiometry word problems. In the latter questions, several thousands of attempts, coupled with an appropriate statistical analysis (i.e., logistic regression) enables one to examine multiple variables simultaneously, and these studies demonstrated that question complexity can exceed a student's memory load (i.e., cognitive load), shifting them from simple exercises to much more difficult problems.

Since he has been at Georgia, Norb has continued in his role as the Editor-in-Chief of the *Journal of Chemical Education*. He was active in designing the new labs and lecture space in the Science Learning Center, in outfitting the labs there with equipment, and in the transition which moved the General Chemistry Program from its former home in the old Chemistry Building into the SLC. He guided the program through a significant expansion which included the addition of several new Instructors. He also designed and implemented the new course CHEM 1210, which is a prequel for students without adequate mathematical background and/or study habits necessary for the main Chemistry courses.

Norb will continue to live in Athens and will be joined here soon by his wife Miriam who is retiring from her pediatrics practice in Iowa. ●

Summer Undergraduate Research Program



SURO 2018 students Diana Graves, Jasmine Harris, Marlyne Serratos, Katie Luedecke, Rebekah Soliday, and Sydney Giles.

This summer, we had seven undergraduate students from multiple universities participate in Chemistry's Summer Undergraduate Research Opportunity (SURO) program. The program was nine weeks, and each student worked closely with a faculty member on their own research project in different areas of chemistry, including physical, organic, inorganic, and analytical.

For more information on the program, visit <https://chem.franklin.uga.edu/undergraduate-research-summer> or contact the coordinators Amanda Frossard and Brandon Rotavera at chem-suro@uga.edu. ●

1988 LaiHing, Kenneth. Huntsville, AL. Ph.D. with Duncan.

Ken and his son Stephen, a Physicist, got together with Mike Duncan at the Spring ACS Meeting in March in New Orleans. Ken is Professor and Department Chair of Chemistry at Oakwood University.

1995 Chan, Man Ling. San Francisco, CA. Ph.D. with Robert Scott.

After graduation from the Scott group, Man worked as postdoc/scientist in research hospitals, biotechnology and pharmaceutical companies across the US, Canada, Hong Kong, and China. She has now settled in San Francisco and is taking early retirement for health reasons. Man last worked as Analytical Scientist for a pharmaceutical company with interests in method development/validation, quality assurance, and regulatory affairs.

1996 Crawford, Daniel. Blacksburg, VA. Ph.D. with Schaefer.

Daniel is Professor of Chemistry at Virginia Tech. He recently received a major award from the National Science Foundation to establish the Molecular Sciences Software Institute (MolSSI). MolSSI is centered at Virginia Tech, and Daniel is its Executive Director. It also includes prominent computational scientists from around the country on its board of directors (Cecilia Clementi, Rice University; Robert Harrison, Stony Brook University; Teresa Head-Gordon, U.C. Berkeley; Shantenu Jha, Rutgers University; Anna Krylov, U. Southern California; Vijay Pande, Stanford University; Theresa Windus, Iowa State University).

1996 Sherrill, David. Atlanta GA. Ph.D. with Schaefer.

David is Professor of Chemistry at Georgia Tech and Associate Director of their Institute for Data Engineering and Science (IDEaS). IDEaS provides a unified point to connect government, industry, and academia to advance foundational research, and accelerate the adoption of Big Data technology. It leverages expertise and resources from throughout Georgia Tech's colleges, research labs, and external partners, to define and pursue grand challenges in data science foundations and in data-driven discovery. The IDEaS team was recently (September 2018) awarded \$5.5 million for a new supercomputer from the NSF Major Research Instrumentation (MRI) program.

David was recently elected Vice-Chair-Elect of the Physical Chemistry Division of the American Chemical Society, the first step in the four-year officer rotation.

2000 Agar, Jeffrey. Boston, MA. Ph.D. with Johnson.

Jeff Agar is Associate Professor in the Department of Chemistry and Chemical Biology at Northeastern University, and has a joint appointment in the Bouve College Health Sciences Center For Drug Discovery.

The Agar group characterizes post-translational modifications of proteins and changes in protein, peptide, and lipid expression that occur during ALS, and then determines which of these changes have structural or toxic consequences. The Agar group specializes in mass spectrometry, including ultra-high mass resolution "top-down" mass spectrometry and mass spectrometry imaging methods, and has developed both analytical methods and computational tools to approach these problems.

Jeff came to UGA in November for the I-STEM-I groundbreaking, and presented the departmental colloquium that day.

2000 Ketch, Areatha (Knight). Clarkesville, GA. Ph.D. with Duncan.

Areatha is teaching General Chemistry at Piedmont College in Demorest. She is also teaching three sections of lab for that class. Her three kids are growing like crazy. Ellawyn is 17 (11th grade), George is 15 (9th), and Sam is 13 (7th). Ellawyn's very involved in drama and chorus. The boys both play basketball (George is 6'3"!?). Between work and her kids' activities, she is really busy.

2003 Woodcock, Lee. Tampa, FL. Ph.D. with Schaefer.

Lee is presently an Associate Professor at the University of South Florida in Tampa. His research program focuses on developing and employing computational methodologies to solve interesting problems that exist at the interface of biophysics, medicine, and materials. In September of 2018, Lee received an R01 grant from NIH to support his work. He recently published a PNAS paper with Gregg Beckham (NREL) on the engineering of a PET degrading enzyme (<https://www.pnas.org/content/115/19/E4350>) that was just named one of the top 100 most influential papers of the year by Altmetric (<https://www.altmetric.com/top100/2018/>). This was across all papers - it was in the top 10 in the area of physical sciences.

2004 Stephenson, Ben. Snellville, GA. B.S.

Ben Stephenson works in the Division of Forensic Sciences Toxicology Section of the Georgia Bureau of Investigation (GBI). As a toxicologist, he analyzes evidence collected from crime scenes, helps law enforcement investigate DUI cases, and aids medical examiners or coroners in determining cause of death. Ben is passionate about the role he plays in larger investigations—helping to add one more piece to the puzzle.

to solve a case. Ben was featured in an article by the UGA Development Office in May 2018 (see <https://give.uga.edu/story/ben-stephenson/>).

Ben and his wife Sara have three girls: Emmie, Laney, and Amelia.

2005 Kishore, Anita. New York, NY. Ph.D. with Prestegard.

Anita is presently a Senior Coach at Management Leadership for Tomorrow in the Greater New York City Area. She recently (September 2018) visited the UGA campus and conducted a workshop on the S.T.A.R (situation, task, action, result) interview method aimed at Chemistry graduate students about to enter the job market.

2007 Bera, Partha. Mountain View, CA. Ph.D. with Schaefer.

Partha is a Research Scientist in the Space Science and Astrobiology Division at the NASA Ames Research Center. He was recently selected as Vice-Chair of the Astrochemistry Sub-Division of the Physical Division of the American Chemical Society.

2007 Pillai, Dinesh. Singapore. Ph.D. with Duncan.

Dinesh and his wife Soo Chin have two boys now (the younger turned one in September 2018, and the older one is 7 years old). Dinesh worked several years for IDEX Optics & Photonics, but recently changed jobs and is now working for Amazon, building out Tech infrastructure for Logistics. Not much Chemistry in his work, but it requires lots of mathematical, analytical and scientific methodology skills (combined with business acumen). Several of his colleagues have backgrounds in chemistry, physics or chemical engineering. He comes to the U.S. about once every four months, but mainly just visits Amazon's Seattle Headquarters. He also manages their Japan division and spends 1-2 weeks each month in Tokyo.

Soo Chin remains a molecular spectroscopy scientist with Agilent and is Dinesh's connection to his past life.

2011 Leach, Franklin. Athens, GA. Ph.D. with Amster.

Franklin recently (August 2018) started a position as an Assistant Professor (tenure track) in the Department of Environmental Health Sciences at the University of Georgia. He was also appointed as an Adjunct Professor in the UGA Chemistry Department.

2012 Ezeh, Vivian. Clemson, SC. Ph.D. with Harrop.

After several years as a visiting Assistant Professor at Kenyon College in Gambier, OH, Vivian Ezeh started a new position at Clemson University in August 2018 as their General Chemistry Laboratory Coordinator.

2012 Gale, Eric. Boston, MA. Ph.D. with Harrop.

Eric Gale is an Assistant Professor of Radiology at Harvard Medical School. He and wife Kristen Gale (nee Fries; Ph.D. Locklin, 2011) welcomed a new baby girl Thea Brooke on Oct. 1, 2018. Younger brother Miles David (2) is somewhat ecstatic.

2012 Morrison, Alexander. Parrish, FL. M.S. with Gary Doublerly.

After many years at Ultrafast Systems in Sarasota FL, Alex has started a new position as a sales manager at NKT Photonics, and he is responsible for the Southeast U.S. region. NKT Photonics is a world leader in the development of fiber laser systems.

2013 Brathwaite, Antonio. Atlanta, GA. Ph.D. with Duncan.

Antonio is Instructor of Chemistry at Emory University, where he began in the fall of 2017. He is teaching Physical Chemistry and renovating the Physical Chemistry labs. Antonio and Tamika bought a house last year and are settling into life in the Atlanta area. He was also appointed as an Adjunct Professor in the UGA Chemistry Department to facilitate his ongoing work in the summers in the Duncan research group.

2013 Yearty, Kasey Leigh (Darley). Athens, GA. B.S.

Kasey (Darley) Yearty received the B.S. degree in Chemistry in 2013, and then continued at UGA in the graduate program. She is working on her Ph.D. degree in Chemical Education with Prof. Richard Morrison, and is set to graduate in May 2019. Kasey was just notified that she will receive a 2019 Graduate School Excellence in Teaching award. She was selected as faculty for the Georgia Governor's Academy this summer (2019). Immediately thereafter, she will begin her new position as Wiess Instructor of Chemistry at Rice University, in Houston, TX.

2014 Driver, Nicki (Reishus). Gainesville, GA. Ph.D. with Duncan.

Nicki and her husband Josh (Ph.D., 2017 with Amster) just bought a house in Gainesville, GA. She is working as a Chemistry Lecturer at the University of North Georgia in Dahlonega.

2014 Liang, Tao. Shanghai, China. Ph.D. with Gary Douberly

After a few years with Coherent, one of the world's largest laser companies, Tao has taken a job with Bruker as a research scientist. Tao and Tianzhu welcomed their first child, Zonghao, in June of 2017.

2015 Sanders, Brian. Pasadena, CA. Ph.D. with Harrop.

After about three years as an NIH Postdoctoral Fellow in Harry Gray's group at Cal Tech, Brian has accepted a Staff R&D position in the Physical Biochemistry group at Oak Ridge National Labs. He starts in May 2019.

2016 McNitt, Chris. New Castle, DE. Ph.D. with Popik.

After completing his Ph.D., Chris stayed on with the Popik group as a postdoc for two years. He recently moved from Georgia to start a new job. He currently works in Delaware for Adesis, Inc as a synthetic organic chemist. The job entails the development of organic light-emitting diodes (OLEDs).

2016 Moradi, Christopher. Chandler, AZ. Ph.D. with Gary Douberly.

Having had his share of rainy weather, Chris has recently been transferred from the Portland, OR Intel fab plant to a new facility in Arizona.

2016 Orr, Dylan. Athens, GA. B.S.

After working on campus in the Microbiology Department as a Lab Tech, Dylan returned to the UGA Department of Chemistry as a graduate student in the Ph.D. program in the fall of 2018. He joined the group of Prof. Michael Duncan, where he will be doing infrared laser spectroscopy of organic cations produced by electrical discharges and isolated in a mass spectrometer.

2017 Johnson, Natalie (Dzadek). Washington, DC. M.S. with Duncan.

Natalie is currently back in the US for a few months - in Washington DC until January and then Boston until March. Her husband Gedde is doing a programming internship over here. After that, they'll be back in the UK (Bury St. Edmunds) for another year and a half.

She currently has two online jobs: English teacher and writing tutor. She was looking for a job in the UK, but they would have been losing money. The cost of another car, insurance and gas (driving at least an hour one way) was going to be more than she would have made. However, she is making the best of it and because of the online jobs they have been able to travel a lot around Europe. She has now been to more countries than states. Her life after graduating has been nothing like she planned, but she is enjoying it.

2017 Aspley, Alex. Athens, GA. B.S.

Alex graduated with a B. S. in Chemistry from UGA in Spring 2017. She is a proud alumna and remains at UGA working as a Data Management Specialist for the Office of Research. She was recently engaged to the love of her life, Cody Esco, and is applying to graduate school in April.

2017 Bellcross, Aleia. Evanston, IL. B.S.

Aleia is pursuing her Ph.D. in Chemistry at Northwestern University. She is a joint student under Prof. Franz Geiger and Prof. Regan Thomson.

2017 Hickox, Hunter. New York, NY. Ph.D. with Greg Robinson.

Since graduating from UGA, Hunter has moved to New York City and accepted a position at ICL-Industrial Products at their R&D facility in Tarrytown, NY. He holds the position of Research Chemist and work in a group developing specialty Functional Fluids. He works on new product development as well as market support for current products. Most of Hunter's projects involve the synthesis of triaryl phosphate esters, which are primarily used as fire-resistant hydraulic fluids in the power generation industry. He has to consider the scale-up of any reactions he develops, as all new products must eventually be made on an industrial scale. Another responsibility of his position is to evaluate the functionality of phosphate ester products on the market and assist in further improving the current generation of Functional Fluids.

2017 Maner, Jon. Portland, OR. Ph.D. with Duncan.

Jon is in his second year working at Intel. He is stationed at the Aloha Factory Operations fabrications facility ("fab"), which is just a few miles from the main fab in Hillsboro. This is a smaller site with many fewer engineers and machines, so the atmosphere is more laid back and less crowded. He sees Tim Ward occasionally, who is over at the main fab. Jon is working in a metrology group in the back end of the chip fabrication process, and spends most of his time on an automated optical microscope tool that does white light interferometry. He's living in Portland's South Waterfront area just south of downtown. His apartment is right on the Willamette River with a nice view of Mt. Hood.

Jon was able to come home for a few days at Christmas to visit his mother in Gwinnett, and they were able to travel around a bit to visit other relatives in South Carolina. Jon keeps in touch with Scott Akin and Antonio Brathwaite, and they talk on the phone occasionally, usually whenever UGA football is heating up.

2017 Phillips, Sabrina. Doraville, GA. Ph.D. with Geo Smith.

Sabrina is working in customer solutions at Pura I, an industrial leader in the engineering and manufacturing of gas-phase air filtration media, modules, equipment and air monitoring instrumentation.

2017 Ramachandran, Roshini. Los Angeles, CA. Ph.D. with Tina Salguero.

Roshini accepted an academic administrator position at UCLA's office of Instructional Development. Her role entails the curriculum revision of science general education courses, and training faculty who teach these courses.

2018 Blevins, Brianna. Athens, GA. B.S.

Brianna graduated with a B.S. in Chemistry in Spring 2018. She returned to UGA as a graduate student in the Ph.D. program in the Department of Chemistry. She joined the Nanostructured Materials Laboratory where she works under the guidance of Prof. Sergiy Minko. Her work focuses on design and fabrication of nanobers for applications in the textile, agricultural, and medical fields.

2018 Beckham, Jacob. Livermore, CA. B.S.

Jacob graduated from UGA in the Fall of 2018. He is now a materials science intern at Lawrence Livermore National Laboratory working with Dr. Sergei Kucheyev. His work on superconducting and ultra-low density materials supports projects at the National Ignition Facility, the lab's flagship program for nuclear stockpile stewardship. Jacob plans to attend graduate school beginning in the Fall of 2019.

2018 Fischer, Al. Cullowhee, NC. Ph.D. with Geo Smith.

Al has recently taken a position as an instructor at Western Carolina University.

2018 Gilbert, Hannah. Leicester, U. K. B.S.

Hannah graduated in the Spring of 2018 with a B.S. in Chemistry and a minor in Spanish. She is currently living in England and is getting a Masters of Science degree in Chronic Disease and Immunity from the University of Leicester. Her Masters dissertation project is based at Leicester Royal Infirmary, and she is studying the use of bio-electrical impedance analysis (BIA) to evaluate hydration status in pregnant women. Hopefully, with this new technology, physicians will be able to evaluate pregnant women with different conditions, like preeclampsia, and assess their needs at a more efficient and accurate rate compared to the current methods used.

2018 Glessner, Caroline. Augusta, GA. B.S.

Caroline is pursuing a professional degree at the Dental College of Georgia in Augusta.

2018 Spagnoli, Jonathan. Memphis, TN. B.S.

Jonathan graduated with a B.S. in Chemistry from UGA in Spring 2018. He is currently in Memphis working at the University of Tennessee Health Science Center for Healthcare Improvement and Patient Simulation (CHIPS). He works with advanced medical manikins/robots, virtual reality, and actors to help train healthcare students and providers. For example, he works with manikins that can breathe, bleed, and even give birth. This advanced technology is used to simulate medical scenarios so that healthcare providers go into real cases more prepared. He also works closely with clinical providers to help develop personalized trainers.

2018 Truong, Phan. Portland, OR. Ph.D with Harrop.

Phan started a postdoctoral position at Reed College (Portland, OR) working with Prof. Miriam Bowring. His research centers on Pt catalysts that activate inert C-H bonds via proton-tunneling mechanisms.

2019 Brice, Joseph. Portland, OR. Ph.D. with Gary Doublerly.

Joe has accepted a position at Intel where he will be a part of the team responsible for chip fabrication.

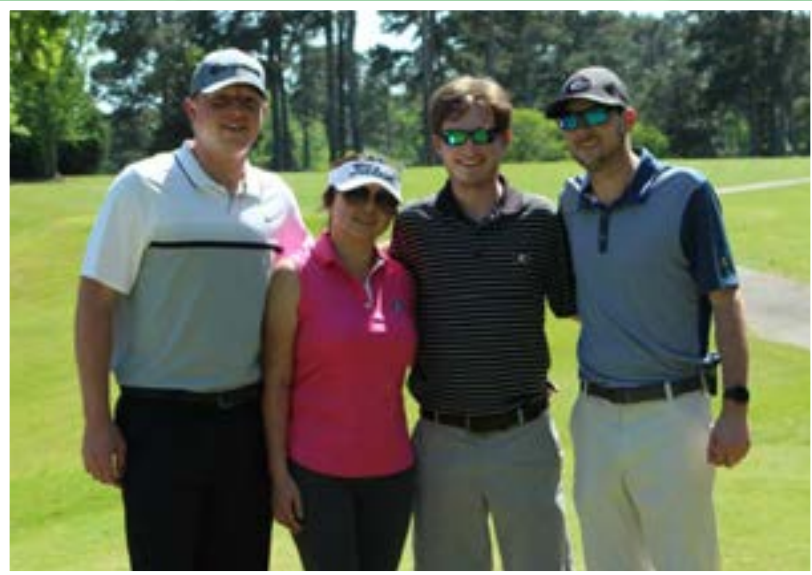
2019 Brown, Alaina. Spartanburg, SC. Ph.D. with Gary Doublerly.

Alaina has accepted an offer to be an Assistant Professor at the University of South Carolina-Upstate. She will begin her faculty appointment in the fall of 2019.

2019 Paulsel, Tad. Raleigh, NC. B.S.

Tad has been accepted to NC State for graduate school in chemistry and will begin there Fall 2019. ●

2018 Chemistry Golf Scramble



Golf winners Matt Skoglund, Mia Ji, Blake Smith, and Charlton Torbett

The Chemistry Golf Scramble took place at the UGA Golf Course on Saturday afternoon April 28, 2018. Nine teams competed, with eight alumni golfers (David Ladner, Jeff Graham, Doug Jackson, Gary Douberly, Jeff Sherman, Richard Walters, Tad Whiteside and Jonny Mosley). The winning team of Matt Skoglund, Mia Ji, Blake Smith and Charlton Torbett shot an impressive score of 66, followed by three teams tying for second at a score of 67.

Matt Skoglund won the closest-to-the-pin competition on hole number eight and Matt Bloodgood won the longest drive competition on hole number eighteen. Following the golf, barbecue, beer, prizes and fellowship were enjoyed by all at the UGA Golf Course Clubhouse. ●

Send us your updates on new jobs, marriages, children, retirements, special trips, etc. to head@chem.uga.edu, or call 706-542-1919. We are especially interested in receiving your email addresses, so that we can send out reminders about upcoming events.

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