



Fall 2017

Volume 35, 2017

Editor:

Lawrence Barton

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Department of Chemistry and Biochemistry

Chairman's Message - Cynthia M. Dupureur

As I was finishing last year's and Psychological Sciences Chair's message, I was beginning a weeks long process of emptying out the old teaching labs in Benton Hall to prepare for renovation. It was like a chemical version of an episode of Hoarders: small equipment to keep; things to toss in the trash; equipment to mark for surplus; and chemicals for disposal. Mercury was more abundant in Benton Hall than anyone might have guessed. Shortly thereafter we (along with Physics and Astronomy) had to organize moving about two thirds of the chemistry offices for the same purpose. The Departments of Biology

and Psychological Sciences were kind enough to loan us office spaces of various interesting configurations. Many decades of papers, journals (and even a few chemicals) were disposed of. The department office is currently run out of the same space as Biology and Physics in the Research Building, although I do have the luxury of my original office in the Nanoscience wing. The move has been disorienting; initially I found myself not knowing which way to turn at the junction of Stadler Hall and the Research Building. Right now the Chemistry faculty are scattered across the entire Science Complex. On the upside, the arrangement makes for better interactions with faculty

Better interactions with colleagues from other departments. Those of us with offices and labs in the Center for Nanoscience have to walk around Benton Hall on the outside, and there is now a worn path in the grass around the greenhouse. This is a pleasant task in sunny fall weather but not so much now that it has cooled off. I find I miss being in Benton Hall. It is like an old friend and we are really looking forward to being back inside next fall with renovated offices and classrooms with state-of-the-art configurations and technology. Whatever our configuration, we are always happy to hear from you, or better yet, to see you on campus. All the best for 2018.



Professor Dupureur having presented the students (l to r) Ashley Dent, Ann Sumner, Alan Scheibel, Kristin Bales and Justin Weatherford-Pratt with Aid to Education Awards in May

GOLDEN REUNION CELEBRATION. THE CLASS OF 1967

Since I reached out to all those 12 chemistry graduates from 1967 who are still living and included information about those we were able to reach last year, in this issue I am beginning with an account of the **UMSL ALUMNI 1967 REUNION**.

The first series of events were organized by the Alumni Association and began with a "Check-in and Mingle" reception at 2:00 pm on Friday May 12. That was followed by a 90 minute campus heritage tour narrated by my colleague Dave Ganz, Professor Emeritus from the College of Business. Then there was an hour-long lecture *UMSL: THE EARLY YEARS* by Chancellor Emerita, Blanche M. Touhill. The evening ended with the GOLDEN ALUMNI RECEPTION in the Student Millennium Center. Many alumni, faculty and staff attended this event including yours truly and **Patricia Barton**, BA 1978. Also that evening the Department of Political Science held an Alumni Reunion on campus.

On Saturday May 13, the 1967 graduates were served a continental breakfast and were robed for the Commencement exercises. Of the approximately 19 graduates from 1967 who attended the weekend celebrations, 17 participated in commencement and the group photograph follows. A photograph of the three chemists who participated onstage at commencement follows.



David Henton, Tom Dueber and Lloyd Hill at the 2017 Commencement, celebrating their graduation which occurred 50 years earlier.

Also at the weekend celebration was **Gary Perryman**, a 1967 graduate who was not among those who chose to walk onstage at the commencement. He is shown here in the center of the picture wearing the golden lanyard. That chemistry represented more than 20% of the attendance from the class of 1967 at the campus-wide function was very gratifying to us and it was wonderful that they returned for the event, along with some colleagues from the classes of 1968 and 1969.



Upcoming Events

The celebration of the 50th anniversary of the first UMSL graduating class in May was very successful. There will be a similar campus wide event for the class of 1968 on May 11 and 12, and the Chemistry Alumni Council intends to hold an event in conjunction with this, the extent of which depends on the interest expressed by our alumni.

The Chemistry Alumni Council also will repeat the successful 2011 event "Chemistry Connections" which focused on careers and networking. That will be held on April 21, 2018. Look for an announcement on the Department Website and on the UMSL Chemistry Group on LinkedIn.



Following the Commencement ceremony that took place at 10:00 am, the 1967 graduates attended the Chancellor's Luncheon in the Lee Theatre of the Blanche M. Touhill Performing Arts Center.

The Chemistry Alumni Council event began at 3:00 pm in the Solarium of the new Science Learning Building. There were about 56 people at the event which, went very well. Tours of the new laboratories, a reception with beverages and hors d'oeuvres and several presentations comprised much of the two hour event. In addition to the four 1967 graduates, **Gary Perryman** BS, **Lloyd Hill** BA, **Dave Henton** BS and his wife Barb, and **Tom Dueber** BS and his wife Sherry, **Ray Novak** BS 1968 and his wife Fran were there as were **Wiley Moore** BS 1968, **Tim Miller** BA 1969 and **Gary Schuster** BA 1970.

The campus intends to hold celebrations annually for each of the 50th Anniversaries of the classes that graduated in the 1960s and we intend to hold an event in conjunction with the campus-wide celebration of the 50th anniversary of the

class of 1968. Details will follow.

ALUMNI INFORMATION

1960s

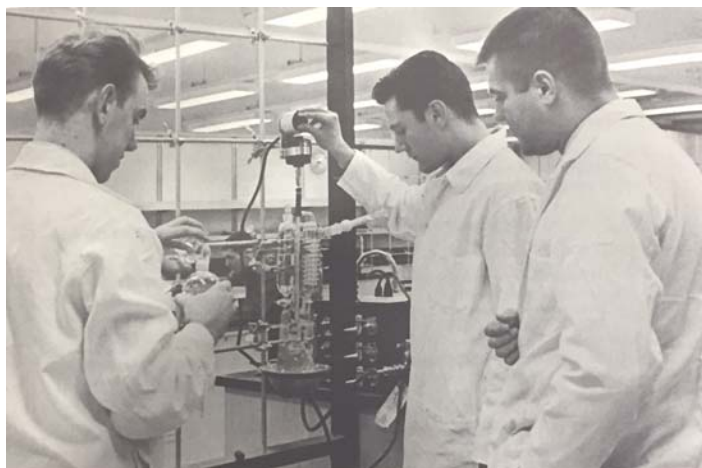
Edward M. Bovier BS 1968, and shown in a picture on the next page, recently celebrated the 50th anniversary of his wedding to wife **Lesley Bovier** BS Mathematics 1968. Ed has been retired from Anheuser-Busch for 16 years. His career at Anheuser-Busch started right after graduation from UMSL and during the 33 years he spent at Anheuser-Busch he held the positions Research Chemist, Research Group Leader, Autolyzed Yeast Extract Plant Manager, Bakers Yeast Plant Manager, St. Louis Brewery Environmental Health and Safety Manager, and Director of Corporate Safety and Risk Management for Anheuser-Busch InBev Breweries. He and Lesley had three children and she later had a distinguished 20 year career as a cartographer for The Defense Mapping Agency. Ed is very much enjoying retirement, spending time with their grandchildren, golfing, fishing and traveling and is enjoying very good at 71 years of age!



Douglas G. Nuelle BS 1969



The group assembled in the Solarium of the Science Learning Center on May 13, 2017 at the Celebration of the Fiftieth Anniversary of the first graduating class in Chemistry at UMSL.



David E. Henton BS 1967, **Edward M. Bovier** BS 1968 and **Dr. Charles Armbruster** in the then-new organic chemistry laboratory in Benton Hall in 1967.

Joseph P. Bono BS 1969 was in touch with us recently. He was unable to attend our Class of 1967 Reunion Event in May 2017 because he was recovering from a series of health issues. He sent us this message.

As I get older (70+ years), rarely does a day pass when I do not think about my years at UMSL. I look back on a good career realizing that the foundations for any successes lie squarely in the Chemistry Department. Those days during the 1960s were exciting. Without the encouragement of the faculty, especially from Dr. Barton, Dr. Armbruster, Dr. Garin, Dr. Larsen and Drs. Corey, just to name a few, none of the good things which happened 50 years thereafter would have ever occurred. And then there were my closest friends – Doug Nuelle, Chuck Heil, Harold Messler, Mike Finkes and many others including Jack Coombs, we were like family. To all those who made a difference in my life from the UMSL Chemistry Department - Thanks for the memories!



Pat Barton BA 1977 and **Paul Blystone** BS 1975 at the Ferry Building in San Francisco in April.

Gary S. Jacob BS 1969 was a 2017 recipient of an UMSL Distinguished Alumni Award which he received at the Founders' Dinner at the Ritz Carleton Hotel in Clayton in October. Gary is Chairman & CEO of Synergy Pharmaceuticals, Inc. in New York. He was in the middle of his company's launch of TRULANCE, the GI drug approved in January and which was being detailed to health care providers all over the country. Gary gave the department Distinguished Alumni Lecture in 1991.

Douglas G. Nuelle BS 1969 recently celebrated his 20th Wedding Anniversary with his wife Tonya in the Florida Keys. Doug is an orthopedic

surgeon in Blue Ridge, Georgia and is affiliated with multiple hospitals in the area. He received his medical degree from Washington University School of Medicine in St. Louis and has been in practice in Georgia for more than 20 years. Doug gave our Distinguished Alumni Lecture in 2002 and later on that fall was presented with a UMSL Distinguished Alumni Award.

1970s

Gregory Przygoda BA 1973 retired from his position as Quality Engineer at Boeing in St. Louis in 2015. Greg has been a loyal supporter of the department over the years and for that we are most appreciative.

Paul Blystone BS 1975 and the editor got together for lunch in San Francisco where the latter was attending the ACS meeting in April (see picture). Paul is now semi-retired, living in Berkeley, California, with his wife Kathryn. On occasion he still consults in areas of personal health diagnostics, strategic planning for early stage oncology companies, water/wastewater testing, and occasionally performs due diligence in merger/acquisition or venture capital investment situations. When not consulting he is remodeling their 1914 home.

Robert J. Zehr BS 1976, MS 1979, and the first recipient of the MS degree in chemistry with thesis, now is an orthopedic surgeon and lives and practices in Bonita Springs, FL. After completing his MS degree in Rudi Winter's lab, he spent two years selling pharmaceuticals and was admitted to the School of Medicine at Saint Louis University. After receipt of his MD, he did a five-year residency in orthopedic surgery at the Cleveland Clinic followed by a one-year fellowship in orthopedic oncology at the University of Florida, Gainesville. Following this he was appointed Head of Orthopedic Oncology for The Cleveland Clinic Foundation and was sent to Naples, Florida in 1998 to help develop the Cleveland Clinic Naples. The Cleveland Clinic departed Naples in 2007 so he set up his own practice, the Zehr Center for Orthopedics which he has run for the past ten years. He recently made a very generous contribution to UMSL to initiate a Fund in honor of his chemistry mentor Emeritus Professor Rudolph E. K. Winter. Since then we have established the *Rudolph E. K. Winter Graduate Fellowship Fund*, designed to support chemistry graduate students studying some aspect of organic chemistry.

Mark Owens BS 1977, MS 1982 is a Principal Analytical Chemist at Curium in St. Louis. Mark

had been with Mallinckrodt for 31 years but they sold the nuclear medicine business to IBA Molecular in January. Shortly after the sale they created a new name for the combined company, Curium. The world headquarters of the company is in Paris and the North American headquarters is in Maryland Heights, MO

R. Tom Solsten BS 1976. was in touch recently. He retired in July from his position at the University of Arizona as Associate Staff Scientist in the Mass Spectrometry Faculty. He continues to consult there in Tucson and still attend mass spectrometry conferences but he really enjoys spending more time with his grandkids. After obtaining a PhD in pharmaceutical chemistry from the University of Arizona, he was with Monsanto until 1998 when he relocated to Tucson. He spent time in industry there before joining the University of Arizona in 2012. He tells us that he enjoys reading the UMSL CHEMIST every fall to learn how his classmates have fared.

H. Pete Kleine BS 1978, MS 1982 is now Senior Supervisor, Process and Analytical Development at Millipore Sigma, presented the seminar "Bioconjugation and Antibody Drug Conjugates, an Organic Chemist's Journey" in the department in September.

1980s

John Bookstaver BA 1980, who also holds a PhD degree from Washington University, is Vice President for Academic Affairs and Enrollment Management at St. Charles Community College. He was formerly Dean of Business, Science, Math, Education and Computer Science. From 1998 to 2012 he was Professor of Chemistry and Coordinator of the Chemistry Program at the College.

Dennis Parazak BS 1982, PhD 1996, who presented the Chemistry Department Distinguished Alumni Lecture last May, just took a position with Diversified Nano Solutions in San Diego, CA. Following his BS degree, he worked as a Senior Chemist at Petrolite Corporation in St. Louis for ten years and completed his MS degree in 1987. In 1992 he entered our doctoral program and in 1996 he moved to Corvallis OR and later to San Diego as he worked as a Media Design and Ink Chemist with Hewlett Packard. Most recently he spent two years in Boulder, CO with RICOH IMAGING AMERICAS.

Dawn L. Shiang BA 1983, PhD 1988 and **William R Shiang** BA 1884, PhD 1989 jointly pre-



Dennis Parazak BS 1982, PhD 1996 after the Distinguished alumni lecture with Professors Spilling, Winter, Stine and Barton.

sented the ACS St. Louis Section, Women's Chemists Committee Lecture on Saturday Nov. 4 on the UMSL campus. The lecture, titled *Managing and Navigating Dual Careers Globally*, was very well-attended. Bill and Dawn are now both retired from Dow Chemical and living on a hobby farm on the edge of the Mark Twain National Forest in Missouri. Bill still consults and travels for Dow. Dawn volunteers for the 37th Judicial Court Appointed Special Advocates for Children, in West Plains, MO, where she currently serves as Office Manager and is just about to become Executive Director.

Floris Homan BS 1984, PhD 1989, is now Quality Control Leader at Alnylam Pharmaceuticals, in Albany, NY. He was formerly Senior Director, Global Analytical Development at Albany Molecular Research, also in Albany.

Jeanette Hencken BA 1985 who is a Chemistry and Forensic Science Teacher at Webster Groves High School, Statesbots FTC Robotics Team Coach and Technovation Challenge Coach at her school and also an Adjunct Professor of Forensic Science at St. Louis University, received the Aspirations in Computing Educator Award for 2017 from the National Center for Women & Information Technology in March.

William L. Neumann, PhD 1987, who is Professor of Pharmaceutical Sciences at the SIU-Edwardsville School of Pharmacy presented the seminar "5-Membered Heterocycles in Drug Discovery: From Parkinson's to Peroxynitrite" in the department in April 2017.



Dawn and Bill Shiang on campus in November

Joseph R. Poett Jr. BA 1987 (also Biology 1986) attended the event honoring the Class of 1967 in in May. Joe works for the USDA at their laboratory on Goodfellow Boulevard in St. Louis.

Mary Nahm BA Chemistry 1988 is now a Scientist III at Pantheon in St. Louis. She was formerly with Sigma Aldrich Fine Chemicals, also in St. Louis.

1990s

Teresa (Hardesty) Clark BA 1990 met with the editor in the department in early October. She is now semi-retired in Wildwood, MO following a remarkable career. She qualified as a Licensed Practical Nurse in 1977 at Waynesville Area Vocational Technical School and served as a Chemistry Laboratory Instructor at Jefferson College in the 1980s. After graduation she worked for United Technologies Automotive as a Senior R&D Polymer Chemist, and later moved on to Chrysler as sealing engineer (rubber products and panel alignment). She was Owner and Black Belt Instructor of Hardesty's Tae Kwon Do for seven years and was a special Olympics Director for 4 years. She and her husband moved to Beijing in 1997 with Chrysler and adopted their son who is deaf. They moved back to St. Louis in 2003 to put him in school, and Teresa went through the American Sign Language Interpreter Course. After an additional stint in Beijing, they returned to St. Louis.

Steven Rooney BA 1994, MS 1996 was excited to tell us that he and a colleague had written the book "How Aspirin Entered Our Medicine Cabinet." which was published by Springer in 2017. His coauthor is a colleague who teaches history at his school. Steve had been teaching chemistry in High School for about 15 years in the Dallas area but recently took a position as an Adjunct Professor at a Tarrant County College teaching Intro to Chemistry II and General Chemistry I. He says he loves it. Following the success of their book, Steve and his co-author were asked if they would write another book. They just signed a contract to write a book on the opioid epidemic. Steve is also cohosting a podcast for "New Books in Science". We last saw him in 2012 when he returned to attend the Chemistry Alumni Council event where we honored Rudi Winter and his mentor Joyce Corey.

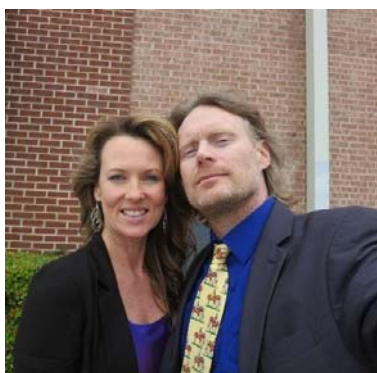
Michael Kopp BA 1990 has been Executive Vice President, Commercial Operations & Business

Development at Leiters, a pharmaceutical outsourcing company in Chicago, since January. He has primary responsibility for Sales & Marketing, Business Development and all other commercial activities. Prior to joining Leiters, Mike served with Xellia Pharmaceutical as Head of Commercial Operations. He has also served with Mylan, where in 2010 he was responsible for the creation of Mylan's US hospital business. He became Vice President of Sales & Marketing, then Vice President of Business Development for all Mylan's North American businesses. He also held various leadership positions with Cardinal Health, including Vice President of Business Development for the generics business. Across his 27 years in the pharmaceutical and healthcare sectors, he has also held leadership positions with McKesson, Teva and Sandoz.

Timothy Desmond BS 1993 is working for the Sauget Sanitary District testing for trace metals in wastewater influents and effluents, as well as other wet bench analyses. He returned to the first full-time position he had out of college after being laid off by American Water in September 2013 with a slight detour through Monsanto for about a year (from 2013 to 2014). One of his colleagues is **Craig Bruton** BA 2008 who has been there for 5 years.

Courtney Aldrich BS 1994 was a co-author of the feature article in ACS Central Science: "The Ecstasy and Agony of Assay Interference Compounds" written by a number of Editors of Medicinal and Pharmacological Journals. Courtney is editor of the ACS Journal *Infectious Diseases*, and a faculty member in the College of Pharmacy at the University of Minnesota-Twin Cities. A member of his research group is **Surendra Dawadi**, PhD 2015 who completed his degree in the Spilling laboratory.

Elizabeth (Amin) Ambrose BA 1996, PhD 2002 was in touch recently. At the time she was busy writing a National Institutes of Health research grant application. She is Associate Professor of Medicinal Chemistry in the College of Pharmacy, a member of the Masonic Cancer Center and a Fellow of the Minnesota Supercomputing Institute at the University of Minnesota-Twin Cities. She started a new project last year on identifying bioactive compounds in Baltic amber extracts, and got some seed funding for that. She has traveled to Lithuania to work with a collaborator there, and also to see family, and she was returning there in June to give a seminar at Vilnius University.



Steve Rooney BA 1994 MS 1996
and his wife Teri.

Anne (Cafferty) Tournbaugh PhD 1997 is now Vice President Regulatory Affairs at Amvac Chemical Corporation in Houston.

FROM THE COMPANY WEBSITE

Anne Turnbough, Ph.D. *Vice President of Regulatory Affairs*

Anne has nearly two decades of experience in managing regulatory compliance for a broad range of pesticides, including both chemicals and biologicals, in over 60 countries. Prior to joining AMVAC, she served as Global Director of Compliance & Regulatory Affairs for Oro Agri, Director of Regulatory Affairs for Control Solutions, Inc., and Global Regulatory Manager for Novozymes Biologicals Ltd. Anne holds both Masters and Doctorate degrees in Inorganic Chemistry from the University of Missouri in St. Louis, and both a Bachelor of Science degree in Applied Biochemical Sciences and a Diploma in Industrial Business Management from the University of Ulster, Northern Ireland. Over the course of her career, Anne has established an excellent working relationship with U.S. EPA, successfully obtained and defended numerous new product and use registrations, and built processes and teams to ensure the highest level of compliance globally.

Michael Washington PhD 1997 is Manager, R&D Analytical Sciences at Mallinckrodt Pharmaceuticals where he has been for 18 years. Formerly he was with Monsanto and also Sigma Aldrich, all in St. Louis. Mike gave the presentation: "My Career in Chemistry (How Did I Wind Up Here)" to the Chemistry Club on November 28.

2000s

Rachel (Hercules) Adams BA 2001, MS 2005 was married to Rick Adams earlier this year. She has been Manager Quality Control at bioMerieux in Hazelwood, MO since 2012. Formerly she was with KV Pharmaceuticals, ConAgra Foods and Rand Diversified, all in St. Louis.

Matthew Dunn BS 2002 has been Quality Assurance Specialist Supervisor at Eurofins Bioanalytical Services at the Missouri Research Park in St. Charles County since September 2017. Prior to that he was Quality Manager at the St.



Anne (Cafferty) Tournbaugh PhD 1997 with **Michael Washington** PhD 1997 and Mike's wife **Angelia Shakir** in October when Anne was at a conference in town

Louis Cord Blood Bank. It was Matt who alerted us about his coworker **Denise Miller** BS 2002 who had just moved there earlier this year.

Viktoriya (Sedelkova) Gruden BS 2002, MS 2005 had been with KV/Nesher Pharmaceuticals since 2008 and in 2015 she joined Alcami Corporation as Chemistry Supervisor. Since February 2017 she has been Business Operations Supervisor for Lickenbrock Technologies, Inc., in St. Louis where she works part-time and is able to learn finance, budgeting, office management and also spend more time with family. She and **Mario Gruden** BS 2003, have two children, a son and a daughter.

Darija Hadziselimovic BA 2002 is now a Principal Compliance Chemist at Mallinckrodt, Inc., in St. Louis. She obtained an MA degree in Business Administration from Webster University in 2014. She has been with Mallinckrodt since 2005 and was formerly with Barr Pharmaceuticals, now Teva Pharmaceuticals.

Denise (Ainley) Miller BS 2002 is now Program Manager II at Eurofins Bioanalytical Services in St. Charles County. She had been with Mallinckrodt Inc., since graduation in 2002, more recently in regulatory affairs and project management. Denise is currently managing bioanalytical testing for 80-90 clinical trials. This aspect is new to her and she finds it interesting. At Mallinckrodt she started on the bench and quickly realized that she wanted to move towards the business side and now realizes that the project management world was where she



Eun Woo Choi, BS 2004 and his family

belonged. She now holds the PMP (Project Management Professional) certification.

Eun Woo Choi, BS 2004 obtained a PhD degree with Dr. Omar Yaghi at UCLA in 2011, and was married that same year. Now he and his wife have four children: 2 daughters who are 5 and 3 years old (Bethany and Bora) and 18 months twin boys (Joel and Jonah). After the UCLA graduation he took some time off, and then finally decided to go into ministry. Since 2013, he been attending Fuller Theological Seminary in Pasadena, CA for an M. Div. degree and pastoring at a church in Koreatown, Los Angeles.

Anchalee (Amy) Thanavaro (Trankler) PhD 2004 is now Senior Scientist at STERIS Corporation, in St. Louis, where she has been for almost 14 years. Amy is married to **Kevin Trankler** BS 1997, PhD 2003 who is Senior Manager, Analytical Services, Novus International, Inc., in St. Charles County.

Robert Barron BA 2005 is now an Analytical Chemist at Missouri Analytical Laboratories in St. Louis where he was hired by the Laboratory Director **Ross Larson** BS 1971.

Lori (Bowen) Gwyn PhD 2005 was promoted to Associate Professor at her alma mater Southwest Oklahoma State University.

Adam Dion BA, 2006; MS 2014 is a Senior Analytical Chemist with Mallinckrodt Pharmaceuticals in St. Louis. He has been with Covidien which reverted to its former name Mallinckrodt since 2007. In 2014 he was honored with our Outstanding MS student award.

Erin Brooks BS 2007, OD Optometry 2011, MS Optometry 2013, an Assistant Clinical Professor in the College of Optometry, was named in November by North County Incorporated as one of "eight alumni and a staff member of the University of Missouri–St. Louis" to its 2017 class of 30 Leaders in their Thirties.

Rokas Juodeska BS 2007 is now a Quality Control Senior Scientist at Lonza, a biotechnology company in the Basel area in Switzerland. He had previously been a Scientist at Novartis, also in Basel. He holds a MS degree in biotechnology from the Johns Hopkins University and spent several years working in Maryland prior to mov-

ing to Switzerland in 2015.

Josh Lang BS 2007 was in touch earlier this year. He is a Senior Chemical Tester at Ameren in St. Louis where he has been since 2011 Prior to then he was with Mallinckrodt Pharmaceuticals. He is married to **Kara (Kinzel) Lang** BS 2008 who is a Senior Analytical Chemist at Elantas PDG. They have two children, a son, Brecken, and a daughter, Rowynn. The family is doing very well but the children are gobbling up all their free time.

Greg Papadakos PhD 2008 from Dr. Dupureur's laboratory is a Protein Chemist at the Roslin Institute at the University of Edinburgh where he has been a Research Fellow. Since 2016 Following graduation he fulfilled his selective service obligations in his home country Greece, and then did postdoctoral fellowships at York and Oxford Universities, before migrating north of the border.

Holly Pope BS Biochemistry and Biotechnology 2008, who obtained a PhD in Pharmacology and Physiology at Saint Louis University, served as a Senior Educator at the St. Louis Science Center for a couple of years, and is now an Admissions Representative and Adjunct Professor in the Honors' College at UMSL. Holly is married to **James (JB) Carroll** BS 2008, PhD 2013 who is a MP&P Engineer - Analytical Chemist at Boeing.

2010s

Nicholas A. Ahlemeyer BS 2011 is a PhD candidate in organic chemistry at Washington University in St. Louis. Following his BS degree he spent 7 months with Monsanto.

Stephanie (Cowin) Cernicek BS 2011, PhD 2107 is a Senior Chemist at BeLeaf Co., in Earth City, MO. She makes cannabidiol (CBD) oil for people (mostly children) with intractable epilepsy, from industrial hemp, which is grown in the same facility. Industrial hemp is similar to cannabis, but has very low levels of THC and high levels of CBD, so it is not possible to get high from the plants or oils. She runs the lab, oversees all production and also does analytical work (HPLC, GC-MS) on all of the products to ensure they meet standards.

David Putnam BS 2011 has been a middle school science teacher at the Academy of the Sacred Heart in St. Charles, MO, since 2012. Prior to that he was a ASC Volunteer at Regis Jesuit High

School in Aurora, CO.

Joe A. Wilson MS 2011, PhD 2014 was recently promoted to Full Professor at the St. Louis Community College where he teaches classes in Chemistry and Physical Science at the Forest Park campus. He formerly was at the Lewis and Clark Community College in Godfrey IL, where he taught Computer Security and Network Administration courses as well as some Chemistry and Mathematics courses.

Katherine (Cibulka) Lampe BA 2012 is now Chemistry Manager at Dynalabs LLC in St. Louis. She joined the company in 2013 following an appointment with Covidien where she was a Quality Analyst for about 8 months. At Dynalabs she has held positions as Lab Analyst III, Lab Analyst II and Chemistry Lead, Chemistry Supervisor and in August 2017 she was promoted to her current position.

Binod Pandey, PhD 2012 has taken a job at PPDI (Pharmaceutical Product Development Inc) in Middleton WI. He had previously been a Postdoctoral Fellow at Penn State.

Mahesh Paudyal, PhD 2012, who had been a Post-Doctoral Research Associate at University of Texas Southwestern Medical Center in Dallas since graduation, is now Research Chemist with Adesis, Inc. in New Castle, Delaware. Adesis is a contract research organization (CRO) supporting the pharmaceutical and biopharmaceutical industry, biomaterials, and catalysts industry. Mahesh completed his doctoral degree with Professor Spilling. He tells us that his son is almost three so he has a full time job at home too!

Sneha Ranade PhD 2012 is now Project manager at Wadhwan Res. Center for Bioengineering and IIT Bombay, in India. Previously she was a teacher at Iltian's Prashikshan, Kendra, India and before that a Senior Research Associate with Sai Life Sciences Ltd in Hyderabad, India.

Christina (Nguyen) Vachira BS 2012 is now a Research Scientist II at BJ Services in Houston, TX. She was formerly with Lubrizol Corporation, also in Houston

Laura Perry BS 2013 has been a Chemist I with Nestle Purina North America in St. Louis since November 2013. Following graduation she spent 6 months as a Laboratory Technician at Mallinckrodt, also in St. Louis.

Pushkar Shejwalker PhD 2013 completed a two

year postdoctoral fellowship at Tokyo University of Technology in the spring and since July he has been working as a Research Scientist at Anant Pharmaceuticals Pvt. Ltd. in Mumbai, India. At the same time he started in a position as Assistant Professor of Chemistry at Ramnarain Ruia College also in Mumbai.

Swati S. Nigudkar Ph.D 2014 had been with Monsanto but recently left the company and moved to Detroit.

J. Prithika Yasomanee PhD 2014 is now with Millipore Sigma in St. Louis. She had been a postdoctoral fellow with Professor Demchenko following completion of her degree with him.

Allan Alla Ph.D. 2016 is a member of the faculty of Malayan Colleges Laguna in the Philippines.

Magnus Creed BS 2016, BSBB 2016 and also BS Biology 2016 is now a graduate student in the Department of Chemical Biology at the University of Utah. Between graduation and moving to Utah he worked as a medical technologist for St. Anthony's Hospital in St. Louis.

Joseph Meisel, PhD 2016 was at the ACS meeting in Washington DC in August. He is currently a postdoctoral fellow at New York University with Andrew Hamilton, Professor of Chemistry and Chancellor of NYU. Joe also has been notified that he has won an NIH Postdoctoral Fellowship. In 2014 Joe offered a beer brewing course for credit for non-science majors. His idea was to use beer to help demystify science and math for people sometimes intimidated by the curriculum. The experiment was successful and now two such courses are regularly taught by Professor Hamper. Joe completed his doctoral work at UMSL under the direction of Professor Gokel.

Hung Thanh Nguyen BA 2016 is now a doctoral student with Professor Demchenko in the department.

Salvatore Pistorio PhD 2016 in the Demchenko laboratory is now employed at Monsanto in St. Louis. He was recently featured on a highway billboard promoting UMSL.

Xiao G. Jia PhD 2016 also from the Demchenko lab is at EKG Laboratories in St. Louis.

Victoria Rogers BSBB 2017 is now a graduate student in biochemistry at Washington University in St. Louis. She performed undergraduate



Bill board in St. Louis featuring Salvatore Pistorio PhD 2016



Joseph Frye and Nicholas Glenn who received the William and Erma Cooke Scholarship at the Awards

research here with Professor Nichols on amyloid protein aggregates which are considered responsible for Alzheimer's disease in humans.

GRADUATES, DEC. 2016—DEC 2017

DECEMBER 2016

Magnus Creed, BS
Lauren Silver MS

Salvatore Pistorio, PhD
John Zhou, BA

BS in Biochemistry/Biotechnology (BSBB)

Muhammed Basic,
Thomas F. Connell,
Abigail Eaker,
Jasmina Hasanovic,
John F. Kuc,
Stefanie Pace,
Lindsey K. Probst,
Britney Sartori,
Lynnsey D. Street,

Sidnie Campbell,
Magnus Creed,
Sarah Goodrich,
Elizabeth N. Karanja,
Jaemin Lee,
Theodore M. Moll,
Victoria A. Rogers,
Analea M. Sterling,
Nathan T. Zeller,

MAY 2017

Christopher D. Bogner, MS
Rebecca Dutcher, MS
Claire R. Freise, MS
Manu Kurian, BS
Lahoma Kanaday, BA
Eli S. LaChance, BS
UmA P. Malik, PhD
Maria j. Scuderi PhD
Benjamin E. Standley, BS
Christopher L. Thomas, BS
Ladarla M. Tutton, BA
Shireen Yalda MS

Carlos H. Castenada, PhD
Christopher P. Flinn, BS
Shanshan Guan, MS
Nazifa Hoque, MS
Vinay K. Kankala, MS
Alexander Lyss, BS
Matteo Panza MS
Jacob R. Smreker, BS
Curtis M. Stump, BS
Jason C. Triplett, BA
Brandon M. Wood, BS

BS in Biochemistry/Biotechnology

Erica Agnew
Mukhtar S. Chaudhry
Hosea T. Covington
Daniel S. Fors
Robert F. Guilmett
Dadie K. Kagarama
Megan E. Orf
Adela Redzic
Sara M. Ricardez
Reginald T. Ross
Daniel Worsham
Qinwei Zhuang

Fatima S Amtashar,
Arvon A. Clemons,
Jordan A. Farhat,
Evan Garrad,
Mike G. Israel,
Kaetlin G. Lafargue,
Jarrol Pugh,
Abdullah I. Rehman,
Josiah J. Rogers,
Joseph B. Roth,
Shanheng Yin,

MS in Biochemistry/Biotechnology

Arvon Anthony Clemons II
Shirisha Poonati
Andrew John Simeroth

Venkata A. Jonnalagadda
Angela Vedia Scaturro
Rachel Nicole Witts

AUGUST 2017

Shelton C. Biggs, BSBB
Maxwell J. Middendorf, BA
Kyndra M. Sheppard, BA

Ben Colvin, PhD
Hyung S. Park MS

DECEMBER 2017

Mansour AlHarthi MS
Lisa K. Gouwens, PhD
Brian Johnson, BS
Howard Mayes, MS

Kristin Bales, BS
Eric Hardy, BA
Kalyn Jones, BA
Daniel Simmons, MS

Douglas Tang, BA

BS in Biochemistry/Biotechnology

Dember Bonds
Lattifah Brooks
Christine Dalton
Brendan Greer
Kevin McBrearty
Ryan Stewart

Daniel Bowman
Mukhtar Chaudhry
Jacob Delcours
Tanner Hudson
Shelby Miller

CHEMISTRY GRADUATE STUDENT ASSOCIATION

Jordan Rabus, BS 2015 and a graduate student working with Professor Bythell sent us this report. In the era of tight budgets, the CGSA activities are somewhat slimmer than in the past, but we are doing our best to maintain our traditional events. This year thus far: In spring: We staffed the ACS Career Day and an open house event for the new Science Learning Building, as well as hosted Dr. David Crich (Wayne State University) as a visiting speaker, including a catered lunch with the speaker open to all graduate students in order to have a casual Q/A session, which was well received by speaker and student alike. This fall: We have recently held our welcoming lunch for incoming graduate students, as well as hosting Dr. Joan Brenneke (University of Texas-Austin) as our visiting seminar speaker. We also are looking forward to holding a pitcher party to celebrate the successful dissertation proposals and defenses of the senior graduate students at the end of the term. In the near future, we already have confirmed visiting speakers for the spring and fall terms of 2018, Dr. T. Record (University of Wisconsin-Madison), Dr. A. Hoveyda (Boston College), respectively.

THE CHEMISTRY CLUB

The Chemistry Club has been revitalized and has been quite active recently. The officers are Ashley Dent (president), Joseph Frye (treasurer), and Nick Viriyasiri (SGA representative). The Chemistry Club is working on recruiting non-science members, with a view to getting these new members excited about chemistry. Demonstrations are performed during meetings and explained in a way that a chemistry background is not necessary to understand. The first club meeting of the fall semester explored a chemiluminescence demonstration: "Cool Blue Light". It uses luminol and perborate, with a copper catalyst, to produce a bright blue light that shines brilliantly in the dark. The Chemistry Club hosted **Dr. Michael Washington**, PhD 1997 who spoke about his 20-year career since graduation at Monsanto, Sigma and Mallinckrodt.

THE CHEMISTRY ALUMNI COUNCIL

This group had the very successful event honoring the 1967 graduates this year, described previously, but much of the year could be considered a transition period. **Barbara W. Brown** BA 1984 who had held the leadership role with **Michael Finkes** BS 1973, MS 1978, has left the area and the reins to Michael. A planning meeting was held in September at which Michael and Barb, **Rachel Adams** BA 2002, MS 2005, **Mark Owens** BS 1977, MS 1982, **Jim Grib** BS 1976, MS 1982, **Bruce Ritts** BS 1979, MS 1983, **JB. Carrol**, BS 2008, PhD 2013, **Michael Hauser** BS 1981, MS 1986, **Tim Miller**, BA 1969, **Eric Bruton** BS 1997, PhD, 2003 **Janet Wilking** BA 1985, Lol Barton and Mary Jo Adams of the Alumni Office attended. Unable to attend were **Bob Dittrich** BS 1976, **Russ Moutray** BA 1978, MS 1989, **Scott Hastay** BS 2008, PhD 2012, **Holly Scheibel** BS 2009 MS 2012 and Drs. Dupureur and Stine. The group discussed several possible activities but decided to circulate a survey to all alums. At a subsequent meeting in December events including collaborating with the Alumni Association on the 50th anniversary of the Class of 1968, a Networking Event and a Dinner with Twelve Strangers were planned.

THE FACULTY

James K. Bashkin was pleased to report that his recent graduates had found positions. **Carlos Castañeda**, Ph.D. 2017, was hired to work at Pfizer and **M. José Scuderi**, also Ph.D. 2017, was hired to work at Monsanto. His research group now has four undergraduate researchers (Rachel Schafer, Jacob Higgins, Christine Dalton, and Chris Wilke) and PhD. student Ali Sabi. Professor Bashkin chaired two sessions and presented an invited talk at Virology 2017 in Toronto in October and gave an invited talk at the Southeast Regional ACS Meeting (SERMACS) in early November. He had a paper accepted ten days after submission in October, which is a record for his research group.

Alicia M. Beatty says her graduate students had a great year. Stephanie Cernicek graduated in August with her dissertation "Cadmium Chloride Dimensionality Changes From Ortho-Substituted Anilines" Matt Fischer is currently finishing his dissertation and expects to defend in December, 2017. Carl Oberle is also writing his dissertation, and expects to defend in early Spring. They recently created her favorite Table of Contents graphic ever!

Eike B. Bauer this year taught the Organic chemistry lab course, Advanced Organic Chemistry and a course in Scientific Literacy, along



Bauer group members (l-r) Sanya Slavuljica, Negar Jourabchian, Deva Talasila, Matthew Stark, Evan Stephenson, Matthew Queensen, Doug Tang and Kellsie Jurkowski.

with other UMSL colleagues. He had suggested he develop the course in his 2012 NSF grant (which is currently in its 5th year). He had a full laboratory of summer research students this year. David Friend and Daniel Wang (high school research students). Kellsie Jurkowski, Chesky Brown, Doug Tang (undergraduate research students), Sanya Slavuljica and Evan Stephenson (Community College research students) and Deva Talasila a MS research student in addition to his three graduate students. This year he attended the ACS National Meeting in San Francisco in April and visited Germany over the summer and Christmas to see family. With fellow heavy metal fan Keith Stine, he saw The Alarm, Reverend Horton Heat, The Damned, Dinosaur Jr. and Dream Theater live in concert.

Benjamin J. Bythell was elected to the Editorial Board of the American Society For Mass Spectrometry (ASMS). His graduate students gave presentations at the 2017 ASMS Conference in Indianapolis, IN, and at the UMSL Graduate Student Conference. In addition to giving four invited talks at universities, Dr. Bythell also presented an invited talk at the ASMS meeting. His group has expanded its work on carbohydrate and peptide gas-phase characterization and published four papers in 2017. Additional endeavors in these areas and on the ACS-Petroleum Research Fund-funded project: *Utilizing Gas Phase Fragmentation Chemistry for Ultra Complex Mixture Analysis: Towards Petroleum Structural Characterization by Tandem Mass Spectrometry*, are ongoing.

James S. Chickos spent three weeks in Thailand in January. He taught a course on thermochemistry at Kasetsart University where his former

student **Patamaporn Umnahanant** Ph.D 2008 is on the faculty. He also presented several seminars at Universities in Thailand during his trip and now has a Thai student working in his lab for a few months. In August he attended an editorial meeting for the *Journal of Chemical Thermodynamics* in Graz, Austria.

Valerian T. D'Souza was unhappy with the lack of help he and other colleagues received when they moved offices this past year, but in the end he was assigned a very nice new office for his introductory chemistry and mentoring program.

Alexei V. Demchenko continues his externally funded research program in synthetic carbohydrate chemistry, and for these efforts he was awarded the 2017 Senior Investigator of the Year Award by the Office of Research. During 2016-2017, his research group, Glycoworld, published 17 articles bringing the total number of publications to 158. During this time he delivered 20 invited lectures in the US, Canada, Germany, Thailand, Singapore, and Japan, and two of his students Satsawat Visansirikul and **Michael Mannino** BS 2014, delivered a talk and a poster at a conference in Barcelona (Spain). A picture from his most recent trip to Thailand where he met with some UMSL alumni is seen below. A postdoctoral fellow Dr. Yashapal Singh and two new graduate students including **Hung Thanh Nguyen** BA 2016 joined his group. The group additionally consists of an NIH postdoctoral fellow Dr. Crystal O'Neil and six doctoral students including **Michael Mannino** BS 2014. For updated information from Glycoworld, see: <http://www.umsl.edu/chemistry/Faculty/demchenko.html>

Cynthia M. Dupureur tells us that this past spring, the group celebrated US citizenship of **Hyung S. Park** BS 2014 a current PhD student in her group with an apple pie that was so good they are still talking about it. This summer the group ditched the lab for a day and traveled to De Soto to meet **Kristin Bales** BS 2017 horses and have a picnic. **Lori (Bowen) Gwyn** PhD 2005 was promoted to Associate Professor at her alma mater Southwest Oklahoma State University. The group attended the Gibbs Conference on Biothermodynamics in Carbondale this past September. This past year, the group also published a couple of papers that included undergraduate research: one with **Howard Mayes** (BS 2015) and Eike Bauer's group and one with **Jennifer Sneathen** (BS 2013) and **Ahmed Mohamed** (BS 2014) in collaboration with Dr. Louis Kuo at Lewis and Clark College in Oregon.

George. W. Gokel was awarded a grant of \$480,000 for the project "Supramolecular Chemistry of Synthetic Amphiphiles" by the National Science Foundation this year. He also published articles in *Supramolecular Chemistry* and in *Inorganica Chimica Acta*.

Bruce Hamper has been working in collaboration with Merck & Co (Rahway, NJ) to develop LCMS methods for analysis of hop components in beer. They published results of the LCMS rapid analysis methods in the *Journal of the American Society of Brewing Chemists*. As a follow up study, undergraduates Chris Thomas and Jason Triplett contributed to the development of rapid analysis of humulones and isohumulones in hops in collaboration with Urban Chestnut Brewing Company. Undergraduate Brendon Sullivan contributed to a synthesis project resulting in the x-ray crystal structure of a novel acyloxy hydroxamic acid, results of which were published in 'Synthesis'. Bruce has continued to develop and refine CHEM 1021: Beer Brewing - Chemical and Biochemical Principles and CHEM 1022: Science of Fermentation.



Professor Demchenko in Bangkok September 2017, with former students, from left to right: **Teerada Kamkhachorn** MS 2010, **Papapida (Ning) Pornsuriyasak** PhD 2006, **Sophon Kaeo-thip** PhD 2010, **Natthakaln Lomchoey** visiting student 2015 and **Patamaporn Umnahanant** Ph.D 2008 who was a student in Dr. Chickos' Lab.

Wesley R. Harris, after a year as interim Vice Provost for Research, has returned to his regular position as Associate Dean of the Graduate School. Although he spends most of his time in the Grad School, he still teaches the Biotech/Biochem senior seminar every semester. The Grad School is continuing its push toward fully electronic records. In August he implemented a new web-based application for a Master's degree, replacing the traditional and hated one and he is also in the process of implementing a new on-line application which is much more flexible and can be customized for each degree program. Wes and his wife Marion enjoyed a trip to Hawaii last summer to visit Marion's family, and they are looking forward to their grandson Ryan's third birthday next month.

Stephen Holmes has been very busy recently writing grant proposals. He published two articles in 2017, one in *Polyhedron* and the other in the *Journal of Chemical Education*. He served as Director of Graduate Studies for several years but passed the mantle to Professor Bauer this year.

Rensheng Luo has seen an expansion of his duties as he now works with the Mass Spectrometry Facility in the Research Wing. The new NMR Facility is now set up and operating in a

nice new and larger room in the Science Learning Building. He also co-authored two papers this year.

Lynda M. McDowell is now in her second year on the faculty and has been teaching quantitative analysis and physical chemistry courses. She has been a regular attendee at chemistry events since she joined us.

Michael R. Nichols continues to investigate Alzheimer's Disease (AD) and inflammation-related research. Continuing projects focus on development of an AD-selective antibody, investigation of a recombinant inflammasome protein complex, and the interaction of cell-secreted microvesicles with amyloid-beta protein. **Ben Colvin**, PhD Aug 2017 completed the program this year and **Lisa Gouwens** dissertation defense was scheduled for November. Nyasha Makoni (3rd year) is holding down the fort with the help of fellow researchers Sweta Desai (BSBB MS program) and Hannah Gill (BSBB BS program). Undergraduate researchers in the Nichols Lab this past year were **Nathan Zeller** BSBB 2016, **Victoria Rogers** BSBB, 2016, **Fatima Amtashar** BSBB, 2017, and **Adela Redzic** BSBB, 2016. Lisa, Nyasha, and Dr. Nichols attended the American Society for Neurochemistry meeting in Paris, France. Findings from the group have been published in the *Journal of Neurochemistry* this year.

James J. O'Brien with Keith Stine shared an



Jim O'Brien and Keith Stine accept an ACS St. Louis Section Salute to Excellence Award from Chair Joe Ackerman in Dec. 2016

at the ACS Midwest Regional Meeting in Lawrence, KS. He continues to take great photographs for the department. He was recently elected Alternate Councilor the ACS St. Louis Section.

Nigam P. Rath continues to run a very productive X-ray diffraction facility. To date since January 2016 his work has produced 33 publications and the total number of refereed journal publications now over 500. He and colleagues are in the process of submitting a proposal to NSF for the purchase of a new diffractometer. Now advanced undergraduate laboratories classes in Organic, Inorganic and Physical Chemistry have introduced experiments in X-ray diffraction techniques and students really enjoy these experiments, as has been reported by the Instructors and some students in the classes.

Christopher D. Spilling, is now ensconced in the administration as Vice Chancellor for Research and Graduate Studies, but he still has an active NSF-funded research program in the department. In 2017 he co-authored two papers presented at the ACS Midwest Regional Meeting in Lawrence, KS and also co-authored an article which appeared in the journal *Synthesis*.

Keith Stine was selected as the 2017 winner of the Saint Louis Award of the Saint Louis Section of the ACS. A symposium and banquet were held on September 29th. Together with Jim O'Brien,



Keith Stine accepting the 2017 ACS St. Louis Section Award from Dr. Natalie LaFranzo, Section Chair.

their many years of effort working on Career Day for High School students at UMSL was honored with an ACS St. Louis Section *Salute to Excellence Award*. Research on a number of aspects of nanoporous gold continues, including collaboration with Professor Demchenko's lab on using the material as a support for carbohydrate synthesis. This work has expanded to include monolithic polymeric materials. Together, they presently hold two major NIH grants. A paper based on the collaborations appeared in *Organic and Biomolecular Chemistry*. His group published review chapters on localized surface plasmon resonance and electrochemical impedance spectroscopy in separate volumes for Nova Science Publishers. Working in his lab are postdoc **Jay Bhattarai** PhD 2014, and three graduate students. His lab hosted

three MS degree students and five undergraduates including a Physics student who received her thesis under his direction. He also hosted a STARS student in his lab over summer 2017, Thomas Munsell and a high school student. During 2017, he has been busy assisting with research and writing for the upcoming campus reaccreditation report for the Higher Learning Commission.

Janet Braddock-Wilking's research continues on the synthesis and characterization of luminescent silafluorenes and germafluorenes for OLED applications. She recently submitted a NSF proposal with co-PI, Dr. Dupureur on synthetic procedures towards more water-soluble luminescent sila- and germafluorenes for binding to DNA and for antimicrobial activity studies. In August she attended 18th International Symposium on Silicon Chemistry in Jinan, China. She and graduate student Stephan Germann presented a poster on his research. Her husband Bruce and son Kevin were with her and they were able to do some sightseeing in Beijing and Shanghai and meet with UMSL Physics PhD graduates Lu and Lucy Fei. In Nov. 2017 she and co-chair Cristina De Meo organized a St. Louis ACS Section Women Chemists Committee event described elsewhere. Her son, Kevin is continuing in the mechanical engineering program at Missouri S&T and hopes to do an internship during the summer of 2018 and her other son, Alex is bartending in Boston, MA at Lamplighter Brewery and also doing some public relations work for the brewery. He is also doing some freelance writing for *Eater Boston* magazine.

Chung Wong was pleased to tell us about the progress of his students. **Howard G. Mayes** BS, BSBB 2015, successfully defended his MS thesis in Chemistry and Biochemistry this year. **Ananya Mukherjee** accomplished the same in the Biochemistry and Biotechnology MS program. Former summer intern **Mayank Goyal** started a two-year MBA program at Harvard Business School this fall after working with Proctor and Gamble for seven years. Other students participating in research this year include Katbah Al-rashedi, **Nazifa Hoque** MS 2017, and John Maygines in Chemistry and Biochemistry, and Venkata Jonnalagadda, **Snowlee Phu**, BSBB 2013, Mihaela Stoyanova, **Jessica Thompson** BS 2016, and Qinwei Zhuang in the Biochemistry and Biotechnology Program.

Zhi Xu teaches Physical Chemistry Lab(I) and Lab(II), and conducts research on Ultrasensitive Spectrophotometry and non-invasive blood

chemical detection. He received the *UMSL Faculty Innovator of the Year Award* in the spring of 2017.

EMERITUS, RETIRED, AND FORMER FACULTY

Charlie Armbruster continues to do well living in Orlando FL. The editor and **Don Kaesser** BS 1967 visited him in January 2017 and hope to do so again in 2018.

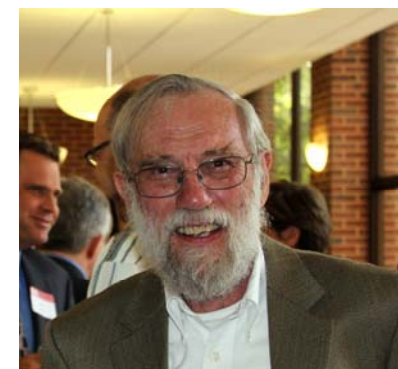
Lawrence Barton and his wife **Patricia J. Barton** BA 1978 are now residents of Florida but spend half the year in St. Louis. Dr. Barton maintains an office on campus and continues to work on alumni affairs and with the Chemistry Alumni Council and also to update the website and the graduate brochure in addition to advising a group of chemistry undergraduates. He will work for the next two years with professors Wilking and Bauer on the Distinguished Alumni Lecture and the Robert W. Murray Lecture, respectively, prior to their taking over these activities. He continues as an Ex Officio member of the UMSL Alumni Association Board and is pleased that his year as the President of the UMSL Retirees Association is over. He will have one more year of leadership with the group as Past President. His golf in St. Louis is now spent at area golf courses as well as Glen Echo Country Club where he is now a non-resident member. His greatest enjoyment, in non-family activity is in maintaining contact and communicating with former students of the department and recounting some of those communications in the UMSL CHEMIST. In addition to Florida, he and Pat took trips to ACS the meeting in San Francisco, to the Michigan Upper Peninsula to see daughter Hilary and her family and the UK to visit family. He also went to the Washington DC ACS meeting, his last one as a Councilor.

Joyce Y. Corey is a regular fixture in the department but didn't have anything noteworthy to tell me. I presume that is because, as usual she is very busy. She reviews, writes and attends department meetings. Her new office is shared with the youngest member of the department. I presume that was because it was considered that he could learn something from this very successful veteran chemist.

David Garin presented a paper at the national ACS meeting in Washington, D.C. in August, titled "Grassroots advocacy for the sciences: A case history from the National Coalition for Science and Technology (1981-87)". The oral paper was also chosen to be a SCI-MIX poster. For those who did not attend the meeting, that 7 foot wide poster can be seen on a second floor wall of the Research Building.



Hayley Steber, winner of the Outstanding Student in Sophomore Chemistry Award and recipient of the Barbara W. Brown and a Lawrence Barton Scholarship, receiving her award from Dr. Dupureur.



Harold H. Harris is seen a little less in the department recently as he and his wife Mary are doing more traveling. He continues to collaborate with Jim Chickos and he was co-author on one of Jim's papers this year. Hal also continues activity in the St. Louis Section of the ACS and currently serves as Investment Committee Chair.

Jane A. Miller turned 89 in 2017 and celebrated by getting together with four of the many students she mentored who went to become some of the St. Louis region's most outstanding and accomplished science teachers. Shown below with Jane are **Jeanette Hencken** BA 1985, **Sandra Mueller** BA 1976, **Liz Petersen** BA biology 1976 and **Joan Twillman** BA 1981. They all went for dinner in Webster Groves in February.



The Joe Kramer family, Jessica, Joe and Donna with Dr. Barton at the party held for Joe on Friday June 30.

Rudolph E. K. Winter tells me that after working with Joe Kramer in the Mass Spec facility for more than 20 years, he was dismayed at his abrupt dismissal without consideration of the real consequences. Rudi plans to work with colleague Rensheng Luo to help get the operation of the JEOL M-Station up to speed. He expresses his gratitude to those who have contributed to the fund in his name for graduate student support and he is particularly appreciative of **Robert Zehr**, BS 1976, MS 1979, who established the fund. Although not looking his age as seen on the previous page, he celebrated 60 years as a member of the American Chemical Society at the St. Louis ACS Section Recognition Night dinner last March. There was only one older member present!

JOSEPH P. KRAMER

We were shocked to learn in late spring that the contract of Joe Kramer was to be terminated after 37 plus years of service in the department. Joe was the last member of the technical staff in the department—the others had all gone, due to budget problems out of the department's control. Joe joined the department following the untimely death of Bill Garrison in 1979. Bill was an electronics Technician and had been with the department since 1969. Joe served in that role until 1999 when he was appointed Spectrometrist as he took more responsibility for the growing Mass Spectrometry Facility in 2000. We added the JEOL M-Station in 1999 and other mass spectrometers over succeeding years. The JEOL is very complex and the other instrumentation in the lab was second-hand except for the vintage HP GC-MS. Considering his technical training was in electronics and not in chemistry or spectroscopy, Joe did a superb job in handling this wide range of instrumentation. Joe married **Donna Palmer** BA 1999 in 1996 and their daughter Jessica was born in 2000. Of course Donna served as Stockroom Manager and later Coordinator of Laboratory Operations until she took a disability retirement and was replaced by Dan Cranford. As funds became more scarce, the administration put pressure on departments to fund technical staff members through users fees. This was ludicrous and has resulted in our losing all of our technical staff. We held a very nice party honoring Joe on Friday June 30 in the Solarium in the new building.

SCHOLARSHIPS AND FELLOWSHIPS

The Charles W. Armbruster Undergraduate Chemistry Scholarship honors Dr. Charles W. Armbruster, who served as Chair of the Division of Science and as the first department chair. He

served the University from 1962-1998. The Scholarship is given to incoming Missouri resident undergraduate students, transferring into the department from other universities and community colleges. The awards for 2017-18 went to *Stevie Shelton*.

The Lawrence Barton Scholarship is designed primarily for junior chemistry majors who are first generation college students and who have financial need. For 2016-17 scholarships were awarded to *Hayley Steber* and *Nicholas Viriyasiri*.

The Barbara W. Brown Fellowship for Women in Chemistry is designated for students who are women over the age of 24. It was established by *Dr. Barbara (Willis) Brown* BA 1984 in 2000. Barb has worked on behalf of and supported the department for many years. The 2017-2018 fellowship went to *Hayley Steber*.

The Eric G. Brunngraber Undergraduate Research Fellowship honors the late Dr. Eric G. Brunngraber. He was the first regular biochemistry faculty member (1987) but passed away shortly thereafter. He had been associated with the department for many years and directed the research of undergraduate and graduate students. For 2017-2018 the fellowship went to *Agota Csiki-Fejer* and *Omar Saffaf*.

The William and Erma Cooke Memorial Scholarship has been one of the major endowed awards in the Department since 1990, and was one of the first such endowments at UMSL. It is designed primarily for sophomores. It was endowed by *Dr. Dorothy C. Cooke* BS 1971, in honor of her parents William and Erma Cooke, in 1989. *Joseph Frye* and *Nicholas Glenn* received scholarships for 2017-18.

The Eugene and Joyce Corey Scholarship goes to an outstanding chemistry undergraduate who has excelled in service to the department. Such service can include one or more of the areas: research, undergraduate teaching, student organization leadership and other contributions as deemed appropriate by a faculty committee. Merit is a principal feature among the selection criteria and need is a secondary criterion. Awards are made for a full academic year and candidates may not receive more than one Eugene and Joyce Corey Scholarship. It was established to honor the late Eugene R. Corey who served on the faculty from 1969 to 1988, and Professor Emerita Joyce Corey. The 2017-2018 award was made to *Kristin Bales*.

The M. Thomas Jones Memorial Fund was the first endowment that recognizes performance by graduate students. It honors Dr. Jones who

served in faculty and administrative positions for 19 years including serving as Deputy Chancellor. It is funded by his widow Patricia Jones and family and was established initially by contributions from colleagues and students. Currently it is used to fund an annual award for the top graduate student seminar in each semester. The graduate students vote on this award and for 2016-17 awards were made to *Salvatore Pistorio* and *Lisa Gouwens*.

The Stephen S. Lawrence Scholarship was established by *Steve Lawrence* BA 1982, PhD 1989 and is awarded to junior or senior chemistry majors in good standing with a cumulative GPA of at least 2.8, who are enrolled in a minimum of 9 hours and for whom the funds will allow timely completion of the degree requirements. Good departmental citizenship, including tutoring, teaching, activity in the chemistry club, or other departmental volunteer activities are also required. 2017-18 awards were made to *Joseph Frye* and *Nicholas Glenn*.

The Rath Family Scholarship was funded by Professor Nigam Rath and his family and is for full-time undergraduates studying STEM at UMSL and preference may be given to Chemistry/Biochemistry students. They must have a GPA of 3.0 or better and a minimum ACT score of 24. The 2017-18 award was made to *Audrey Williams*.

The Linda and Michael Finkes Chemistry Scholarship is relatively new and was endowed through the generous contribution of *Linda* BA political science 1970 and *Michael J. Finkes* BS 1973, MS 1978. The recipient for 2016-17 was *Shelton Biggs*.

The Hal and Mary Harris Scholarship is awarded to juniors seeking a degree in chemistry with a minimum GPA of 3.0 and enrolled in a minimum of 12 credit hours. The 2017-18 award went to *Justin Weatherford-Pratt*.

Friends and Alumni Scholarships are need-based and were established after an appeal made to alumni and friends and matched by the University in 2005.

The John J. Taylor Scholarship was established by his family. *John J. Taylor* BA 1979 had directed funds from his estate to a need-based chemistry scholarship. He was a long-time Mallinckrodt employee, who took all of his courses in the evening was very supportive of



Kristin Bales winner of the ACS Awards for Physical and Analytical Chemistry receiving the Eugene and Joyce Corey Scholarship.



Michael Finkes BS 1973 MS 1978 and *Linda Finkes* with the Finkes Scholarship recipient *Shelton Biggs*



Professor Karen Wooley the 20th
Annual Robert W. Murray Lecturer

-department and died in 2004.

The Monsanto Biochemistry and Biotechnology Scholarship was established in 2005 with the help of **Michael Finkes**, BS 1973, MS 1978 who encouraged his employers to provide funds which would be matched by the University. It is awarded to non-freshmen in the BS program in Biochemistry and Biotechnology.

STUDENT PERFORMANCE AWARDS Undergraduate

The award for the *Outstanding Student in Introductory Chemistry* went to **Yazan Alkharabsheh** who received a certificate and the *Handbook of Chemistry and Physics* from the Chemical Rubber Company. The Award to the *Outstanding Student in Sophomore Chemistry* went to **Hayley Steber**; the *ACS Award for Organic Chemistry* went to **Brandon Wood**; and the *ACS Award for Analytical Chemistry* went to **Kristin Bales**. The *ACS Awards in Inorganic and Physical Chemistry* went to **Charles Allison** and **Kristin Bales**, respectively. The *ACS-St. Louis Section's Outstanding Junior Award* went to **Justin Weatherford-Pratt**. The award was presented at the Annual ACS High School and College Awards Night in April. **Alexander Lyss** received the **Alan F. Berndt Outstanding Senior Award**. The 2017-18 Undergraduate *Chemistry Aid to Education Awards* were given to : **Kristin Bales, Ashley Dent, Alan Scheibel, Ann Sumner** and **Justin Weatherford-Pratt**.

Graduate

The 2016-17 *Outstanding Graduate Teaching Assistant Award in Memory of Jack Coombs* was awarded to **Jack Harms**. **Daniel Simmons** was honored with the *Outstanding MS Student Award* and the *Graduate Student Research Accomplishment Award* went to **Carlos Castaneda** who graduated with his PhD degree from Jim Bashkin's lab in May 2017.

THE ROBERT W. MURRAY LECTURE

On Monday April 17 2017 **Dr. Karen L. Wooley**, W. T. Doherty-Welch Chair in Chemistry, University Distinguished Professor at Texas A&M

University where she holds appointments in the Departments of Chemistry, Chemical Engineering and Materials Science and Engineering, presented the Twentieth Annual Robert W. Murray Lecture, "*Functional Polymer Materials Designed for Environmental Remediation and Sustainability*". We had an excellent attendance at both the lecture and the Banquet for this special occasion of the 20th anniversary of the award. We were pleased to host some of her former Washington University Colleagues. Prior to joining Texas A and M in 2009, Karen was James S. McDonnell Distinguished University Professor in Arts & Sciences at Washington University where she had been since 1993. The Lecturer for 2018 will be Professor Lucy M. Ziurys from the University of Arizona where she studies astrobiology, astrochemistry and chemical physics and materials influencing early biochemistry, thus tracing life's origins back to interstellar space.

DISTINGUISHED ALUMNI LECTURE

The 30th Annual Distinguished Alumni Lecture for 2017 was given by **Dennis P. Parazak** BS 1982, MS 1986, PhD 1996. Dennis joined Petrolite Corporation in 1982, and continued his education in the evenings at UMSL, obtaining his MS in 1987 and in 1992 he resigned his position as Senior Chemist at Petrolite to enroll in the PhD program. He graduated in 1996 in Dr. Stine's laboratory, as Dr. Stine's first doctoral graduate. He spent 20 years as an ink chemist at Hewlett-Packard, first in Corvallis, OR, and eventually in San Diego. He took an early retirement from HP and moved to Boulder, CO where he worked for Ricoh USA doing Ink Quality Assurance work. In 2017 returned to San Diego to be near his son, and now works for Diversified Nano Solutions. He lectured on: "*A Career Path in Solving Problems: Applications of Surface & Colloidal Chemistry in Complex systems*". The 2019 Lecturer will be **Yana Levchinsky-Grimmond** BS 1997, MS 1999. Yana completed a MS degree with thesis in Janet Wilking's lab and moved to the Albany area in upstate NY, first to work at the GE Global Research Center and after two years she moved to Regeneron Pharmaceuticals where she is now Senior Manager Technology Transfer. She is married to **Brian Grimmond** PhD 1999 who completed his graduate degree with Joyce Corey and is also employed by Regeneron.



The 30th Annual Distinguished Alumni Lecturer,
Dennis P. Parazak BS 1982, MS 1986, PhD
1996

EDITOR'S COLUMN
(LAWRENCE BARTON)

Again I have delayed the continuation of the History of the Department since it would be for 2010—2015. Perhaps that will happen next year. This has been a challenging year for the department. While the students and faculty enjoy the use of the new laboratories, the initiation of the much-needed renovation of Benton Hall has created some headaches, as indicated by Professor Dupureur in her message. Benton Hall was completely gutted internally and is being renovated. All faculty and staff offices were relocated to temporary offices in Stadler Hall or the Research Wing. Access to the department office, all classrooms and seminars by faculty with offices in the William Clay Building involved leaving the building and walking around the greenhouse to the Science Learning Building which is connected to Stadler and Research. Some spaces are essentially complete as I write this. Space once occupied by the physical chemistry and quantitative analysis labs is now largely occupied by HVAC equipment. Completion of the project is expected in mid-2018, although the Chemistry Alumni Council met in a new Benton 406 in January.

The administration has changed substantially during the past year. Provost Cope of Academic Affairs has left the campus, Dean Yasbin of the College of Arts and Sciences has retired and Chris Spilling is now is Vice Provost for Research and Graduate studies. Many campus colleagues are retiring at the end of 2017 due to the change in retirement benefits. This seems to have affected staff members to a greater extent than faculty members. Whether many of these positions will be replaced remains to be seen.

The number of degrees awarded by the department remains quite healthy as the department moves more towards an emphasis in biochemistry. About 60% of the 82 degrees awarded 2017 were those in Biochemistry/Biotechnology and the BS degree with emphasis in Biochemistry. The development of the degree programs in Biochemistry and Biotechnology in 2002 jointly with the Department of Biology turned out to be a very successful venture for both Departments. The total number of Baccalaureate degrees through Academic Year 2017 is 1245. We have been awarding graduate degrees since 1977 and during the 40 years since then we have awarded 479 MS degrees and 185 doctoral degrees. In 2018 we may reach our 2000th degree!

We mention elsewhere the celebration of the class of 1967. The Alumni Association will repeat this celebration for the succeeding classes through 1970. To what extent we will do this in the department depends on the potential interest by members of those classes and our ability to fund such activities. The Chemistry Alumni Council is currently considering this. The numbers of graduates for those classes, all undergraduate degrees are, 18 in 1968, 29 in 1969 and 21 in 1970. I will be reaching out to those classes around the end of 2017 to determine the extent of the celebrations.

We continue to raise funds to endow the *Rudolph E. K. Winter Graduate Fellowship Fund*, designed to support chemistry graduate students studying some aspect of organic chemistry and are most appreciative that **Bob Zehr** BS 1977 stimulated the establishment of the fund with a generous donation. Our alumni and friends have been very generous in supporting the department and our students certainly appreciate that. I believe we can boast one of the best, if not the best, programs for student financial support and recognition, and due to the fact that state funding continues to decrease, that support from our alumni and friends has an even greater impact than would appear.

The year 2017 was one with lots of positives for the department. First we were proud to celebrate the Golden Jubilee Anniversary of our first graduating class. We celebrated the 20th Annual Robert W. Murray Lecture in style. We celebrated the eleventh campus-wide Distinguished Alumni Award by a department alum when **Gary Jacob** BS 1969 was honored and the twelfth faculty colleague Keith Stine became the 46th winner of the St. Louis Award of the St. Louis Section of the ACS. With respect to the latter award, George Gokel won it in 2003 before he joined the department and **Bill Neumann** PhD 1987 became the first alum to win it in 2007. The year saw the first complete use of the Science Learning Building as all the new laboratories were used and the NMR Facility was moved and set up. We were spared any further faculty losses, despite attractive inducements to retire by the administration.

When the newly renovated Benton Hall opens in 2018, in many respects the department will enter a new era: new offices and classrooms, a new Colloquium Room and additional spaces for students. What was planned for the department in the mid 1980s will have come to fruition. We



Dr. Charles Armbruster with the editor in Orlando in January when he and Don Kaesser BS 1967 went to visit Dr. Armbruster.



Benton Hall 120, more recently numbered 102, facing towards the northwest corner of the room, during the renovation of the building in October. This is where the editor gave his first lecture in 1966 to about 350 students!

hope that some of our recent losses can be replaced. Support staff and instrumentation support have both suffered under campus-wide funding reductions. However, the campus-wide facilities have improved very much since the dawning of the new millennium and we expect that to attract more students. We suggest you, our alumni, return to see the new look in the department and on the campus and we wish you all the very best for 2018.

Thanks to our Generous Contributors 2017

Below we list the individuals, chemistry alumni and friends who made contributions to the department including memorial and scholarship funds processed through December 18, 2016. We are most grateful for your support. If we missed out your name, we apologize and hope you understand that we are fallible. Recent gifts will appear next year.

AbbVie Employee Engagement Fund
Ackerman, Ronald E.
Ambrose, Elizabeth
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Vermont, George Bernard
Vermont, Dolores F.
Von Till, Carl Thomas
Wilking, Bruce Alan
Wu, Shuguang
Zehr, Robert J.
Zhao, Hui
Zhu, Henghu

ACKNOWLEDGMENTS

I wish to thank Eike Bauer, Jim O'Brien, my cellphone and August Jennewein, the University photographer, for the photographs and **Patricia Barton** BA 1978 for proof-reading.



Winter view of the Student Millennium Center and the Bridge to Lucas Hall.

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Enclosed is my contribution of \$ _____ Yes I work for a matching gift corporation.
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**UMSL CHEMIST
 FALL 2017**

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INFORMATION UPDATE SPRING 2018

Please respond to this questionnaire. We have mentioned previously how important it is for us to keep track of what you are doing, both professionally and personally.

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