



Spring 2024



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## The Department of Chemistry and Biochemistry

### Chairman's Message - Keith J. Stine

The Department is currently busy searching for two new faculty members, an Assistant Teaching Professor of Chemistry to fill the position held by Bruce Hamper who retired in 2023 and an Assistant Professor of Organic Chemistry with a research focus on synthetic flow chemistry. UMSL is a member of the Active Pharmaceutical Ingredients Innovation Center, a nonprofit organization seeking to secure the nation's drug supply from overseas supply chain risks and to foster job growth in the Saint Louis region. One of the labs occupied by Vice Chancellor and former Department Chair Chris Spilling is in the process of being renovated and equipped to be a flow chemistry lab. Funds from a gift provided by Rajiv Banavali (Ph.D., 1985 with Robert Murray) continue to be used by the Bashkin, Bauer and Xu labs to pursue research projects related to green and sustainable chemistry. The Department held a full agenda of events in the past year. The new Science Policy lecture series funded by a generous gift from Emeritus Professor David Garin had its first speaker in October with Dr. Arti Garg who is Chair of Engineers and Scientists Acting Locally (ESAL) giving the inaugural lecture. Our Murray lecture this year was given in September by Professor Rachel Segalman of the Department of Chemical Engineering at University of California Santa Barbara. ACS Career Day for High School Students

Volume 41, 2024

Editor:  
Lawrence Barton



*Prof. Stine at the graduation of his doctoral student Palak Sondhi  
PhD 2023 at the December Commencement*

took place in 2023 for the first time since 2019, and was attended by about 300 students, the most we could possibly accommodate. The event was organized by Professor O'Brien with help from the Department Chair and from Professor Lukasz Szatkowski and the Chemistry Club. In April, the event *Remembering Charlie: A Celebration of the Life of Dr. Charles W. Armbruster* took place in the Millennium Student Center and was attended by about 60 people. There were many spoken and read testimonials from those who knew him well. Eventually there will be a plaque with a photo placed near the main office. Professors Stine and Nichols attended the Christmas party at American Radiolabeled Pharmaceuticals as guests of Dr. Surendra Gupta, founder and owner of the company and a long time friend of the Department. The

Midwest Regional Meeting of the ACS took place in October at the Saint Charles Convention Center and the Department was highly represented by talks and posters and the chairing of sessions. Professor O'Brien was the Program Chair for the meeting. Our Distinguished Alumni lecture this year was given by Justyce Jedlicka (BS, 2009, MBA, 2018) of MilliporeSigma in May. While our enrollments seem to have stabilized, the number of chemistry majors has fallen dramatically despite excellent job opportunities in the Saint Louis region and beyond. Our alumni continue to be successful in all kinds of endeavors and we hope that they will promote the good reputation of the Department widely and that over time more students will come to our excellent programs.

Best wishes to you all!

## EVENTS

Apart from the annual major lectures including the Distinguished Alumni Lecture, the Robert W. Murray Lecture, and the new David L. Garin Lecture on Science and Public Policy, all the events involving alumni are planned and arranged by the Chemistry Alumni Council, which is now an affinity group of the UMSL Alumni Association. This past year, we honored the life of our founder, Charlie Armbruster in May, and the classes of 1973 and 2023. All were very successful. Upcoming will be a celebration of the 60<sup>th</sup> anniversary of the founding of UMSL, currently being planned.

This issue devotes much to the event we held in honor of Charlie Armbruster and to a lesser extent events the editor was involved in, honoring the lives of **Doug Nuelle** BS 1969 and **Mark Owens** BS 1976, MS 1982.

## ALUMNI INFORMATION

## 1960s

**David Henton**, BS 1967 was honored by the university as one of 60 for 60, as it selected 60 graduates from the first sixty years of the campus who apply one or more of the university's core values in the world and help to make it a better place. Dave was recognized as the top chemistry student in 1967, and went on to graduate work at the University of Kansas, punctuated by a two-year draft period with the Army Chemical Corps, eventually earning a PhD in organic chemistry. He spent a career at the Dow Chemical Company, retiring after 31 years with the company, during which he attained many accomplishments and received numerous honors. He is from an "UMSL family". A graduate of Normandy High School he was followed at UMSL by two siblings, a son and even his mother. Dave's brother **Daniel Henton**, BS 1975 also shared the honor as top student in his class, and worked for Dow. Dan received a PhD from Ohio State University in 1979. He is now retired from Dow and has been teaching at Michigan State University.

**Lloyd (Skip) Hill** BS 1967 was at the event honoring Dr. Armbruster on April 23, 2023 and at the inaugural *David L. Garin Lecture on Science Policy* on October 16, 2023. Skip is retired from Mallinckrodt, in St. Louis, having received a PhD degree at Iowa State University following graduation. We have written much



**Dr. Lesley E. Tucker**, BS 1969, a retired gastroenterologist from Mercy Hospital in Washington MO and **Dr. Lloyd P. Hill** BS 1967, a retired chemist from Mallinckrodt Inc., in St. Louis, at the celebration of the life of Dr. Charles W. Armbruster.

about him over the years.

**Charles A. (Chuck) Heil** BS 1969 we were unable to contact last spring for the celebration of the life of his friend and classmate, **Doug Nuelle** BS 1969, but were shocked to hear that he had suffered a stroke. Recently we heard from **Joe Bono** BS 1969 that Chuck was managing with lots of help from his wife Kay and their two sons. Unfortunately we heard that he had died on December 26, last year. His last few months were difficult but had great support from his family. He holds a PhD degree in inorganic chemistry from the University of Colorado and after two years in industry, they moved to Cincinnati where he taught at Seton High School an all-girls private high school for 36 years. At UMSL in the 1960s he was the editor's second undergraduate research student.

**Steven Mestamacher** BA 1969 was unable to attend the celebration of the life of Dr. Armbruster but his brother Don, who was a great friend, along with his family did attend. With them was Steve's daughter Rebecca representing Steve with whom we spoke after the funeral in 2022.

**Douglas G. Nuelle** BA 1969, who died in December 2022, was honored by daughter Rebecca and his family in St. Louis on May 6, at Resurrection Cemetery at the family plot. Coincidentally that is where Charlie Armbruster is buried. The celebration was continued at a lunch at Zia's On the Hill. The only UMSL friends able to attend both activities were **Harold R. Messler** BS 1970 and his wife Carolyn and Lol and Pat Barton. Photographs appear left and on the next page.



**Dr. Charles W. Armbruster** and **Dr. Douglas G. Nuelle**, BS 1969 at the event in 2008 where the former was honored with the Chancellor's Medallion. We lost both of them in 2022 and they were honored this past year.



Lol and **Pat Barton** BA 1977, with **Harold R. Messler** BS 1970, **Rebecca (Nuelle) Norman**, and **Carolyn Messler**, celebrating the life of **Douglas G. Nuelle** BS 1969, at *Zias on the Hill* in May, 2023.

**Larry Payette** BS 1969 was in touch in January. He retired from Boeing ten years ago and lives in Sandy, Oregon. At Boeing he was in charge of hazardous waste treatment and also worked in quality control. For much of his retirement he has dealt with the consequences of a stroke, however he is very proud of his two sons Aaron and Eric, his grandchildren and their families.

### 1970s

**Dennis W. Wester** BS 1970 held various research and management positions including such at AMOCO Research Center (Naperville IL), Mallinckrodt Medical (St. Louis MO), NeoRx Corp. (Seattle WA), Pacific Northwest



Dr. Stine, Dr. Nichols, **Shihka Grover** PhD 2023, 2 family members, Casal Holder, **Bingli Yan** PhD ,2005, **Dr. Phil Asaro** BS 1977, **Michael Finkes**, BS 1973, MS 1978, **Carl Von** Till BS 1990, Drs Gokel, Barton, and Bauer, **Joel Colich** and **Campion Smith**, both BS 2023, Dr. Garin and **Greg Webb** BA 1974.

National Laboratory (Richland WA), and Nordion Inc. (Vancouver BC), following receipt of his PhD degree from the University of Florida. He is now retired and lives in Richland, WA with his wife Vicki. He took Russian as his required foreign language for his BS degree here and continued to learn the language. For the past 35 years Dennis has translated scientific journals from Russian to English. This year he will set a new personal record for such translations with a whopping total of well over 2,000 pages. He is still active in science and presented a paper titled: "The Theory of Integral and Differential Infinity, I Conceptualization", at the Sigma Xi Symposium: in Long Beach, CA on Nov. 10 last year, and in February 2024 it appeared in *The Chemical Educator*, a Springer Journal.

**Michael Finkes** BS 1973, MS 1978, and his wife Linda, BA Political Science 1970, were featured in *Legacy News*, Fall 2022. Mike and Linda are 1963 *Legacy Society Members* which means they have made, to quote Linda, "a legacy gift to scholarship that will benefit students for the next 100 years, actually, in perpetuity". They met in Linda's first academic year in 1966-67. It was during the Vietnam war and Mike was likely to be drafted so he enlisted in the Navy where he spent three years including time in Vietnam. During that period they wrote 2000 letters to each other and in 2023, their 50<sup>th</sup> wedding anniversary, coinciding with their 50-year reunions, UMSL's Golden Anniversary reunions, they began to read excerpts of the letters to each other each night. Mike, a former Monsanto employee for many years has been instrumental in helping to connect us with you as a co-founder and the current leader of the Chemistry Alumni Council, former President of the Alumni Association and member of the Chancellors' Council. We have described the couple often in the UMSL CHEMIST.

**Gregory Webb** BA 1973 attended the reception for the 1973 and 2023 graduates last May. He was older (23) when he started at UMSL. He had just spent 3 years in the army (France and Vietnam) and worked in the lab at Shell Oil in Wood River, IL., for 2 years. He worked full time in the laboratory of the old St Louis County hospital while at UMSL and after graduation he worked for 2 years at the old Sigma Chemical company doing verification of claims and stayed at the hospital on 3rd shift. Two years

after graduation he was promoted to chemistry lab supervisor at the hospital and left Sigma. From 1977 to 79 he was lab director at the hospital. In 1979 he moved as lab director at Barnes Hospital and 2 years later director at St Francis hospital in Cape Girardeau. He left there in 1985 to work at Smith Kline Pharmaceuticals as the director of their heavy metals laboratory. That division of SK was purchased by Quest Diagnostics around 1990 and he worked as advisor to the Midwest region of Quest until 2012 when he retired. He has been active in Boy Scouts for 40 years and taught chemistry and physics for a homeschool coop ever since. In 2023 he became active in the Chemistry Alumni Council.

**Mark H. Owens** BS 1976, MS 1982 passed away in March 2023, after a struggle with lung cancer, at the age of 69. Mark was a good friend of the editor and many other faculty members and alumni. Indeed he did undergraduate research with me and continued well after graduation. He spent a career in analytical chemistry, and following graduation spent time at Missouri Analytical Laboratory, Celcus Laboratories, and Envirodyne Engineers but spent most of his career (37 years) with Mallinckrodt and more recently the spinoff Curium. Mark was one of the founders of a group of alumni and faculty who socialized 2 or 3 times per year at St. Louis area drinking establishments.

**Phillip S. Asaro** BS 1977 was at the alumni reception last May and we were so happy to see him. He has spent a career in medicine following his graduation with an MD degree from St. Louis University School of Medicine in 1981. He then spent three years residency in family medicine at the University of Illinois College of Medicine in Rockford, IL. Following several years in family medicine, he did a National Library of Medicine postdoctoral fellowship in medical informatics at the Washington University School of Medicine, and since 2002 has been Assistant Professor there doing medical informatics research and development. Between 2007 and 2019 he served as a primary care physician two days per week at one of the Affinia Health Care (previously Grace Hill) clinic sites

**George Limpert** BA 1979, MS 1995 and the editor were in touch in January. He retired in 2012 for health reasons and is now confined to a wheel chair. He spent most of his career with Mallinckrodt in St. Louis doing analytical

chemistry, mostly chromatography. George was a part-time evening student and following Mallinckrodt worked for ABC Labs in Columbia MO and finally Celcis Laboratories in St. Louis prior to retirement. His serious health problems have hampered him but he maintains a positive spirit and is most proud of his grown children, a son and a daughter. His son holds a PhD degree and was teaching at the University of Nebraska-Lincoln when we spoke.

### 1980s

**Randy F. Johnston** BS 1980, I often meet at ACS meetings where he presents the research of his students. I saw him at the Indianapolis meeting in 2023 and also at the New Orleans meeting in April where he was with a group of his students. Randy served as Chair of the Chemistry Department at Union University in Jackson, Tennessee for 19 years, one more year than I did at UMSL! He plans to retire this year after years in academia, including teaching at Texas Tech and the University of Memphis. His research is in organometallic chemistry. He received his PhD degree from Texas Tech., and did postdoctoral research at the Naval Research Laboratories in Washington DC, prior to entering academia.



**Mark Owens** BS 1976, MS 1982



The group that got together last May to honor **Mark Owens** BS 1976, MS 1982 at the Ferguson Brewhouse: Keith Stine, Lol Barton, Jim Chickos, Dave Garin, **Rick Hoyt** BS 1976, Hal Harris, **Bob Ditttrich** BS 1976 and Mike Nicholls. Missing was **Bill McCarthy** BS 1975, PhD 1984, a regular who was ill at the time., and Chris Spilling.



**Shelly Kumar** PhD 1982, Professor of Chemistry at Governors State Univ. near Chicago, with his student and Hal Harris at the ACS Joint Great Lakes-Midwest Regional Meeting in St. Charles, Oct. 2023.

**Shailendra (Shelly) Kumar** PhD 1982 was in touch recently. He attends ACS meetings and we have met at some recently. He was at the Chicago meeting in 2022 and met several UMSL graduate students and faculty members. More recently he was at the Joint Midwest-Great Lakes Regional Meeting in St. Charles, where again he saw some familiar faces. Shelly received his PhD with the late Robert W. Murray, and followed that with postdoctoral research at UCLA. He stayed in the Los Angeles area, teaching at California State University at Long Beach and also working in industry for a while at Allergen. When he was there he promoted a scholarship in the department for several years. Since 1991 he has been Professor of Chemistry at Governor's State University. Many years ago, around 1985, I attended a symposium on boron hydride and related chemistry at the University of Southern California. Following the symposium Shelly gave me a magnificent tour of Los Angeles. When I last visited him in Chicago, and was hosted for dinner at his home, we learned that he is a leading figure in Chicago in Indian culture and music.

**Karl Seper** BS 1982 retired in January 2024 from Abaco Partners in Alto, MI near Grand Rapids, where he was Chief Scientist, Formulation QA/QC for four years. An interview of him was described in Facebook in 2022 where he espoused the value of urban universities, having been at UMSL, University of Albany, and the Free University of Berlin. The inter-

view was associated with his teaching at Grand Rapids Community College and Calvin University, also in Grand Rapids. Karl did undergraduate research with Eric Block at UMSL and went to Albany for his PhD and did postdoctoral research in Berlin, before the wall came down. Much of his earlier career was at Occidental Chemical Co., and during that period he presented the *Eleventh Distinguished Alumni Lecture* in the department in 1998. He is from Ferguson MO and proud of it.

**Rajiv M. Banavali** PhD 1985 has been retired from WestRock company in Atlanta since Dec 2022 where he was senior Vice President, Science and Innovation. He and Marysusan will stay in Atlanta as he develops his new "career" in advisory and board roles with public and private equity companies. Rajiv serves on the UMSL College of Arts and Sciences Leadership Council and of course is an advisor to the initiative in the department on green and sustainable chemistry which he established and funded. They travel much and had just returned from Berkeley, where he was asked to teach a class at Cal-Berkely's joint Chemistry/Chemical Engineering/Business School Program on new product development. That was fun to do and he has agreed to teach one class per semester next year.

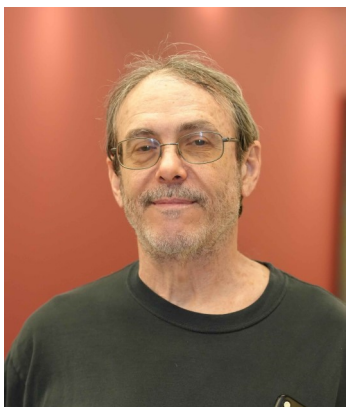
**Gregg Lumetta** BS 1982, PhD 1987 is a Laboratory Fellow in the Nuclear Chemistry and Engineering Group at the Pacific Northwest National Laboratory (PNNL) and has more than 30 years of experience in the field of radiochemical separations. Following completion of his PhD degree, with Gordon Anderson, Gregg did postdoctoral work at the University of Texas Health Center and the Oakridge National Laboratory. He joined PNNL in 1990 and has been there since then. In 2011 he was honored as a member of the third class of ACS Fellows and in 2015 he was the recipient of the ACS 2015 Glenn T. Seaborg Award in Nuclear Chemistry, cited for his groundbreaking work in actinide separations. His research is in aspects of the nuclear fuel cycle with a focus on radiochemical separations via liquid-liquid extraction and ion exchange, as well as actinide chemistry. This research has been directed at developing methods to recycle commercial spent nuclear fuel, management and disposal of high-level nuclear waste, nuclear weapons non-proliferation, and nuclear forensics. Although these subjects are far outside of



**Dr. Karl Seper** BS 1982 demonstrating to his students at Grand Rapids Community College in December 2022



**Gregg Lumetta** BS 1982,  
PhD 1987



**Carl Von Till** BS 1990



**David Regan** BA 1984 and  
**Shelly Kumar** PhD 1982 in a  
sneak peek at the Diamond Jubilee  
Celebration in April, 2024

what he encountered at UMSL, he says the foundational coordination chemistry and inorganic chemistry he learned at UMSL still apply. Otherwise, he can be found in his vegetable garden in the warm weather months. He and his wife, Michele, coach the Science Olympiad team for a local high school, which occupies most of their free time during the school year.

**David Regan** BA 1984 retired from Eli Lilly in 2018. Following graduation he worked in Kanas City with Ciba-Geigy, and then Carter Waters Corp., followed by a period in IL before moving to IN where he spent 4 years with EPI, and for the last 17 years, of his career, running an environmental lab. for Eli Lilly. Post retirement he has been an adjunct Professor of Chemistry at St. Mary of the Woods College.

#### 1990s

**Carl Von Till** BS 1990 attended the CAC reception honoring 1973 graduates in May. Carl, who spent many years with Monsanto and Solutia, in St. Louis has been a Chemist with Intercom Chemical Co., in St. Louis since 2001.

**Christopher S. Mallory** BA 1991 was with Upjohn/Pharmacia/Pfizer in Kalamazoo, MI, from graduation through 2006, and is now Head of Quality Control at Roche Carolina in Florence, South Carolina. In between he had positions with Schering Plough Research Institute and Merck. When he was in the department he did research with Professor Hal Harris, wrote an honors thesis and graduated with honors. He also served as President of what is now the Chemistry Club.

**Scott Long** BS 1992 spent his early career with Pfizer in St. Louis until the big downsizing at the beginning of 2010. His next major position was a Senior Research Chemist with Novus International in St. Charles, MO where he spent almost nine years. He then spent six years with EAG Laboratories in St. Louis. Since 2021 he has been Principal Scientist with Confluence Discovery Technologies, in St. Louis. At UMSL Scott did some research with Jim Chickos and obtained his graduate degree in organic chemistry from the University of Illinois-Champaign Urbana.

**Steven Rooney** BA 1993, MS 1995, was in touch in January. He has been a full-time Instructor in Chemistry for the past five years at Tarrant County College in Hurst, Texas. He attended the Spring ACS meeting in Indianapo-

lis with a colleague and a group of students who presented research posters. He is sponsor of their award winning ACS student affiliate chapter and he teaches general chemistry. He and a colleague are working on a paper on an unconventional approach to undergraduate research at two-year institutions. Another alum . **Sitaram Acharya** PhD 2012, a Janet Wilking student, is also at Tarrant.

**Elizabeth (Lizzy) Sloan** BA 1995 has been with Nestle' Purina North America since 1998, and is currently Manager Chemistry.

**Tammy (Gahimer) Pavelic** PhD 1997, who received her undergraduate degree from Ohio State University and worked with former colleague Bill Welsh here in graduate school, has spent her career in higher education. She taught at Lindenwood University in St. Charles, MO for 11 years before her family moved to Fort Wayne, Indiana. There she taught for 9 years at Ivy Tech Community College, and continues to teach there part-time, but since August 2023 she has been Associate Professor of Chemistry at the University of St. Francis, in Fort Wayne teaching chemistry and physics.

**Kevin Trankler** BS 1998, PhD 2003 is Director of Analytical Chemistry at Eurofins EAG Laboratories in St. Louis. Following graduation from the Corey lab, he spent over 5 years with Chemir Analytical Services, and in 2010, when he was Director-Technical Services, he moved to Novus International, in St. Charles. He spent 11 years there rising to Director, Quality Assurance, Environmental Health & Security. Then in 2021 he moved full circle, and joined EAG Laboratories. In 2011 EAG had acquired Chemir, prior to itself becoming part of the Eurofins Scientific global network of laboratories. Kevin is married to **Anchellee (Thanavaro) Trankler**, PhD 2003 who has been with Steris in St. Louis since graduation from the Spilling group. Kevin and Amy have two children.

**Jennifer (Moser) Hockenhull** BS 1999, has been a Project Manager for the past six years at MilliporeSigma in St. Louis. She started her professional career with Mallinckrodt in St. Louis, beginning as a student intern and serving as Manager-Analytical Chemistry and Products where she left the company after a 20-year career. Her father **Francis W. Moser** III BA 1995 spent his career at Mallinckrodt and got his degree solely in the evening over several years.



*Dr. Aixia Sun, MS 1998 in one of her laboratories at American Clinical Solutions in Sun City Center,*

**Aixia Sun** MS 1999 has been with American Clinical Solutions in Sun City Center, FL as Principal Scientist and the Cannabis Lab Director since moving to FL in 2010. As a student at UMSL she worked with BioMerieux Inc., in St. Louis and then with Severn Trent for a year before moving to San Diego, spending time with several pharma companies including Takeda for four years. During her time in Florida she obtained a Doctorate of Health Sciences from A. T. Still University, Mesa, AZ. Aixia lives with her husband Gary Weese, in Brandon, FL. She met with UMSL Advancement officials in spring 2023.

### 2000s

**Dijana Hadziselimovic** BA 2003, who had been with Steris Inc., essentially since graduation was promoted to Manager, Laboratory Technical services, with the company, in August 2023.

**Bingly Yan** PhD 2005 was at the alumni reception honoring the 1973 and 2023 graduates. Following graduation from the Spilling lab, she spent two and a half years as a postdoc at the University of Pittsburgh and then Sigma Aldrich/MilliporeSigma for 8 years as a QA Specialist. Since 2018 she has been with Pfizer in St. Louis where she is a Principal Scientist.

**Pallavi Badkar** PhD 2006, who also completed her doctoral research with Chris Spilling, has been in the Greater Boston area since 2017 with Pfizer. She was promoted from Senior Principal Scientist Senior Manager, Global

Regulatory Affairs, Vaccines CMC, in April 2022. Following graduation she spent 11 years with Sigma-Aldrich and when she left in 2017 she was Quality Control Supervisor.

**Chloe (Bryant) Tullock** BA 2006, who earned a PhD degree from St. Louis University in Pharmacological and Physiological Science, is now Director of *NewLeaf Symbiotics* in St. Louis. Following graduation she was a Medical Writer with Mallinckrodt, and then in regulatory affairs with Monsanto\Bayer, before moving to her current position in August 2020.

**Nikkilina R. Crouse**, PhD 2009, is Director of Medical Affairs at Supernus Pharmaceuticals, Inc. in St. Louis. Following graduation from the Nichols lab she was a postdoc at Washington University Medical School for three years. She spent 6 years with Teva Neuroscience as a Senior Medical Liaison, and then was with Adamas Pharmaceuticals before joining Supernus in November 2021.

**Merci M. Kiiru** BS 2009, MS 2011 took a new position in Jan. 2024 as Technical Manager with Catalent Pharma Solutions in Greenville North Carolina. She had been previously with Thermo-Fisher Scientific in St. Louis and prior to that with Elantis P. D. George in St. Louis.

### 2010s

**Philip J. Ferko**, BS 2010, MS 2015, PhD 2019 has been with EAG laboratories in St. Louis since 2020, first as a Scientist and since February 2022 as a Senior Scientist. He has been an Epee Coach with Fencers Academy in St. Louis since 2011 and was briefly with Augusta Fencers Club in Georgia. He also did some teaching part time at Maryville U and Jefferson College, and worked in analytical chemistry supervisory positions in Hollister and Watsonville California during 2017 and 2018.

**Stephanie (Cowin) Cernicek** BS 2011, PhD 2016 has made a name for herself in Missouri pioneering the chemistry of cannabis, as it became available for public use. Several articles appeared in UMSL Daily which you may have seen. After completing her PhD degree with Professor Alicia Beatty, she went to work for Beleaf's Life Oils. BeLeaf was one of two companies in Missouri to receive a license to grow hemp and convert it to CBD oil. She spent several years at Beleaf before moving to



*Stephanie (Cowin) Cernicek BS 2011, PhD 2016 ,at Mana Supply Company where she oversees production of cannabis products for a range of expanding applications*

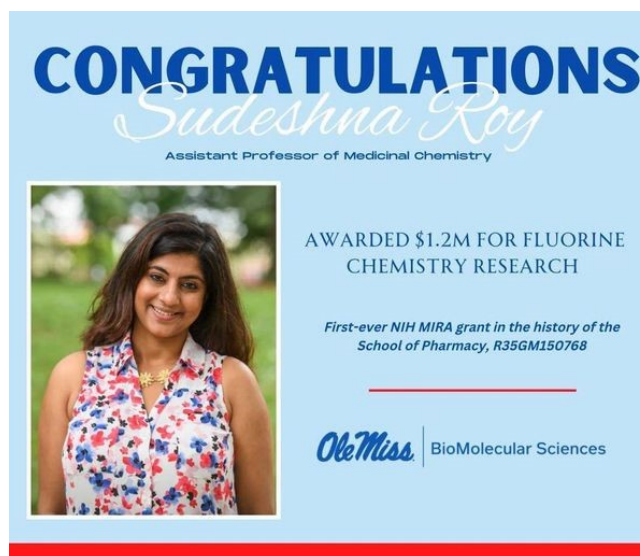
the other company, Mana Supply Company. She has been the Chief Science officer there since 2021. She serves on multiple boards of various organizations within the industry, has several different certifications and works as a faculty member in the St. Louis University Cannabis Science and Operations certificate program and has been recognized widely for her work in the industry. In 2021 she was a C-Suite award winner from the St. Louis Business Journal and in 2023 was named Woman of the Year in Missouri by Greenway Magazine. She has come a long way since she was my undergraduate advisee, working on her degree and playing trumpet in the UMSL jazz band! It is amazing for me to note that several of our former students now work in an industry that did not exist a few years ago!

**David Putnam** BA 2011 has been a R&D technician and QC Chemist at Vison in St. Louis since 2019. Following graduation he did some research with Professor Holmes, taught middle school and worked in industrial R&D.

**Sudeshna Roy** PhD 2012 in Chris Spilling's group, is Assistant Professor of Medicinal Chemistry and Pharmacognosy at the University of Mississippi. Following graduation she carried out postdoctoral research at the University of Kansas and then at the University of North Carolina-Chapel Hill. She was in the news in November when she was awarded a \$1.2 million grant from NIH. It was the first such award at the School of Pharmacy at Old Miss..

**Pushkar Shejwalkar** PhD 2013 recently joined the ZDHC foundation (Zero Discharge of Hazardous Chemicals) which is a Netherlands-based NGO/company. He is a Technical Manager, at the Sustainable Chemical Management of the Competence Center, based in Mumbai, and works from Surat, Gujarat., which is about 160 miles north of Mumbai. They were organizing a Technical Conference, hoping to connect with any person/manufacturer or a company who might be interested in showcasing their chemistry and sustainability efforts towards the Textile and Footwear supply chain.

**Abby (Smith) Christman-Claffy** BS 2014 had been a Chemist at Sensient Food Colors in St. Louis since from 2015–2021 and prior to that she was a Customer Service Representative with the same company. For about a year following graduation she was an Analytical Lab



*Sudeshna Roy PhD 2012*

Technician with Chemir-EAG, also in St. Louis. She spent a year and a half with Cosmos Corporation in St. Peters, MO and in 2022 returned to Sensient where she is now Sales Account Manager. In December 2023 she earned a MS degree in Food Science and Human Nutrition from the University of Illinois-Urbana Champaign.

**Swati Sudhir Nigudkar**, PhD 2014 is now with Bayer Crop Science in St. Louis as a Research Chemist II. Following graduation from the Demchenko lab, she spent a few months with Fimbrion Therapeutics, a Washington University spin off where another former Demchenko student, **Laurel Mydock-Magrane** PhD 2010, is Director of Chemistry. Swati then spent two years as a Senior Process Chemist at Monsanto and another year as a postdoc at Wayne State University.

**Magnus Creed** BS, BSBT and BS Biology, all 2016, was awarded a PhD degree in biochemistry from the University of Utah in August 2023. He is now doing postdoctoral research at the University of Central Florida, in Orlando, working with Professor James J. Hickman as part of a multidisciplinary team composed of cell biologists, surface chemists, and engineers. At UMSL Magnus did undergraduate research with Professor Bashkin. He is married to UMSL chemistry graduate, **Lahoma Kannady**, BA 2017.

**Supratik Dutta**, PhD 2016 has been with the Janssen Pharmaceutical companies of Johnson & Johnson since October 2021, as a Principle



*Abby (Smith) Christman-Claffy  
BS 2014*





**Nick Glenn** BS 2018 after his PhD thesis defense at the University of Michigan

Research Scientist in Spring House, PA. Previously he spent five years with Eli Lilly as a Research Scientist in protein optimization in Indianapolis, IN. Following graduation from the Dupureur lab, he spent five years at Washington U School of Medicine as a postdoctoral fellow and another year as a research scientist in the Center for Mass Spectrometry.

**Huy Q. (Ben) Nguyen** BS 2016, PhD, 2022 who worked in the Bashkin group, and continued as a postdoctoral fellow for several months has been an R & D Chemist with Sentio Bio-Sciences in St. Louis since October 2023, and also has been an Adjunct Instructor at Maryville University since August 2023.

**Salvatore Pistorio**, PhD 2016, who received his degree in the Demchenko lab, is a Project Manager at Zeotis Inc. in Catania, Sicily He has been with Zeotis since 2018 when he returned to Italy after spending a year as a Process Development Chemist in St. Louis.

**Nathan Zeller** BSBT 2016 is currently employed as a downstream process development scientist at Thermo Fisher Scientific in St. Louis.. He designs and develops GMP manufacturing processes for protein-based biologics, such as antibodies and Fc-fusion proteins. He returned to UMSL in 2019 and earned a M.S. in Biochem/Biotech in 2022 and continued to pursue a PhD in chemistry with an emphasis on biochemistry under Dr. Nichols.



**Kristin Bales** BS 2017, center, with her thesis committee, Profs Leah and Jim O'Brien, Lynda McDowell and Cindy Dupureur in August

**Kristin Bales** BS 2017, PhD 2023, graduated in August 2023 after completion of her doctorate with Dr. O'Brien, and is now an Instructor at East Central College in Union MO where she also teaches two days per week at the satellite campus in Rolla MO.

**Carlos H. Castaneda**, PhD 2017, who completed his PhD degree with Professor James Bashkin is now a Principal Scientist at Pfizer, Inc. in St. Louis. As an analytical scientist focusing on

DNA/RNA sequencing, he had the privilege of contributing to the development of the COVID-19 vaccine.

**Maria Jose' Scuderi** PhD 2017 is teaching at the University of Maryland Baltimore County extension in Catania, Sicily. She completed her dissertation research with Dr. Bashkin and is married to **Salvatore Pistorio** PhD 2016.

**Ashley R. Dent** BS 2018 is her fourth year of study towards a PhD at Saint Louis University, working for our former colleague Dr. Alexei Demchenko. She is very busy serving as a graduate student association representative for the department, and on the school of science and engineering graduate student council. She has won a total of four awards there and intends to take a post-doc position on graduation. She ultimately wants to work in academia, and has a deep passion for carbohydrate chemistry!

**Joseph Frye-Jones** BS 2018 was awarded a PhD in Chemistry from Florida State University in Dec 2023. A news release, associated with the ACS Spring National Meeting in Indianapolis, featured the work of Joe and his preceptor Akan G. Marshall on some of the most detailed analyses yet of the organic material of two meteorites. They extracted the organic material from samples of both the Murchison and Aguas Zarcas meteorites, then analyzed it with ultra-high resolution MS in the National High Magnetic Field Laboratory at FSU.

**Nick Glenn** BA 2018 received a PhD in chemistry from the University of Michigan in 2023 and is now an Analytical Development Research Chemist at Vertex Pharmaceuticals in Boston.

**Kellsie B. Jurkowski** BA 2018, MS 2020, is Standard Stability Coordinator with Dynalabs in St. Louis. She also has been a part-time STEM Educator with Numerade since 2021.

**Justin-Weatherford-Pratt** BS 2018 had just completed his PhD degree at the University of Virginia in the Dean Harmon laboratory and was going to relocate to St. Jude's where he will perform postdoctoral research, when we last heard from him. We note his dissertation research has been productive, with three research publications already in print.

**Hunter J. Campbell** BA 2021 is a third-year student in the UMKC School of Medicine.

**Nicholas Forsythe** BS 2021 is a graduate student at Saint Louis University, working with our former colleague Alexei Demchenko.

**Shelby (Jarrett) Noland** PhD 2022 is an Assistant Teaching Professor in Chemistry and Biochemistry at the University of Colorado, Colorado Springs. She now has a son.

**Helena Spikes** PhD 2022, who graduated from the Gokel lab, is a Process development Chemist at Millipore Sigma in St. Louis. Following graduation she spent a few months working with Upaya Pharmaceuticals LLC, a startup found by Dr. Gokel and his group.

**Shikha Grover** PhD 2023 from Mike Nichols lab is a Scientist 1 at Pace Life Sciences, in Woburn, MA. Shikha is doing protein chemistry; studying neurodegeneration and Alzheimer's Disease. She was awarded the *Ceil M. De Gutis* Award for excellence in research, by the department in 2023.

**Melanie Shadrick** PhD 2023 who graduated from the Demchenko Lab, is a postdoctoral fellow with Professor James Janetka at the Washington University School of Medicine.

### THE CHEMISTRY ALUMNI COUNCIL

Again the CAC has been very busy recently following a very busy 2022. The big event in 2023 was a *Celebration of Life* for our founder Charlie Armbruster, on Sunday April 23, 2023 when about 60 friends, and alumni honored him. Again, later on we celebration the Golden Anniversary of the class of 1973 on Saturday May 13. The attendance was much smaller, about 28 were in attendance, but it too was very successful. The CAC is ably chaired by **Michael Finkes** BS 1973, MS 1978, and this year we have been busy again planning, along with **David Armbruster** BS 1973 and me, the Diamond Jubilee of the department celebration, an event aptly named *Sixty Years of Great Chemistry*. We will report on this event next year.

### GRADUATES, DEC. 2022—DEC 2023

#### DECEMBER 2022

Mauriel Clay MS,  
Mikayla Kingsley MS  
Bikram Sitoula MS  
Deva S. Talasila PhD

Shrestha Ganesh PhD  
Huy Q. Nguyen PhD  
Helena J. Spikes PhD  
Hannah Vietor MS

#### Biochemistry and Biotechnology

Ahmed H. A Almoheef BS Loren K. Beck BS

Dominic C Bottini BS  
Radostina Marinova MS  
Ellen E. Meystrik BS  
Jacob D. R. Moore BS  
Omar Saffaf BS  
Kenneth G Sipe, MS  
Nastasia G. Zyryanova BS

#### MAY 2023

Dylan Brookshire BA  
Joel C. Colich BS  
Saroj Kafle PhD  
Stevie J. Shelton BA  
Taejun Yoo BA

#### Biochemistry and Biotechnology

Samantha M. Aarons BS  
Allison Cannady BS/MS  
Nicholas L. Dickman BS/MS  
Alex T. Larkin BS  
Hannah I. Ordonez Webb BS  
Jeremiah J. Queen BS  
Essence B. Rowe BS

#### AUGUST 2023

Kristin Bales, PhD

#### DECEMBER 2023

Jessica Doshi, BA  
Palak Sondhi PhD  
Taiwo Adeniji, MS  
Grant Zeidler, MS

### THE FACULTY

**James K. Bashkin** told me that **Huy Q. (Ben) Nguyen** PhD 2021, who worked in the Bashkin group, continued as an industrial postdoc with the same group and with Sentio Biosciences. He was then hired full-time by Sentio to cap off a delightful collaboration. Huy and Jessica Thompson presented at Missouri Organic Day, where JKB gave a plenary lecture. JKB also lectured at the MU medical school's precision medicine program. He also became Chair of the St. Louis Section of the American Chemical Society for 2024. One of Jim's undergraduate researchers, Zahria Patrick received 2024 Ciba Travel Award from the Green Chemistry Institute at the American Chemical Society to attend the Annual Green Chemistry Conference in Atlanta in June, and one from the NSF to attend The 2024 Emerging Researchers National (ERN) Conference in STEM held in Washington, D.C., in March 2024. Jim continues research funded by the Banavali initiative in green and sustainable chemistry, and Zahria has made important contributions to that work.

Kelli J. Dockery BS  
Ann Knapp-Migdal MS  
Nicole M. Miller BS  
Ryan R Russell BS  
Omar Saffaf, MS  
Jesse T. Wilson BS

Kevin J. Baum BS  
Shihka Grover PhD  
Jada J. Rush BA  
Campion M. Smith BS

Tyler Brakensiek BS  
Chieh Chang BS  
K. Hammers BS/MS  
Melinda Mantler BS  
Brandon Patrick BS  
Jesus Ramos BS  
K. E Stalder BS/MS



**Shelby Jarret-Nolan** PhD 2022 with her advisor **Dr. Dupureux**, at her graduation in 2022.



**Mark Leiber** BS 1980, MS 1986, and **Bruce Ritts** BS 1979, MS 1983 at the *Celebration of Life* for **Dr. Armbruster**



**Michael Hauser** BS 1981, MS 1986 and **Mark Pozzo**, BS 1978, MS 1982 at the *Celebration of Life* for **Dr. Armbruster**

**Eike B. Bauer** spent the Christmas Holiday with his family in Germany and when he returned he was pleased to share information about his students. He and his research group attended Missouri Organic day in April 2023 where students Sai Anvesh Bezawada and Khushboo presented posters. Cody Amann (undergraduate research student) presented his research at the UMSL Undergraduate research day in April 2023. The research group also attended Missouri Inorganic Day that month where he gave a talk and his students Sai Anvesh Bezawada and Khushboo presented posters. In the fall they all went to the ACS Joint Midwest/Great Lakes Regional meeting when he gave a talk and students Sai Anvesh Bezawada and Khushboo presented posters. He heard from his former student **Deva Talasila**, PhD 2022, who continues to enjoy her job at Bunge in St. Charles, MO. Eike is Manager of the "UMSL Department of Chemistry and Biochemistry" Facebook page.

**Alicia M. Beatty** has been teaching online and we have not heard from her recently.

**Valerian T. D'Souza** told me he has not been doing much recently, but I don't believe him. He teaches Intro Chem online and Organic Chemistry online and face to face. He has been experimenting with pedagogic strategies and finally settled on a problem-solving approach with workshops instead of lectures. The new generation of students seem to like it.

**Cynthia M. Dupureur's** doctoral student **Shelby Jarret-Noland** PhD 2022, moved to Colorado, and is teaching at UC Colorado Springs. Cindy gave a poster at the Midwest-Great Lakes Regional ACS Meeting in fall 2023 and a talk at Truman State on the work she and Shelby did with Prof. Janet Braddock Wilking's compounds. They filed a provisional patent and published articles on it in 2023 and 2024. She is still a co-PI with UMSL ADVANCE. The current focus is on update the promotion and tenure guidelines to better reflect how faculty spend their time. We are delighted that she has agreed to be one of the speakers at our diamond jubilee event, *Sixty Years of Great Chemistry* in April.

**Steven M. Holmes** continues to serve as Director of Graduate Admissions and on his externally funded research in single-molecule magnets. In the past couple of years he has published three articles and has one in press. He presented invited lectures in Spetses, Greece, and Tahoe City, CA and has devel-

oped new collaborations with researchers at Ohio State University (2), University of New Mexico, Technical University of Denmark, the National High Field Magnetic Lab in Tallahassee, FL, Wichita State University and St. Louis University along with several ongoing collaborations. His doctoral students are **Mark Eissler** BS 2019 and a new student Habeeb Okeowo from the University of Ilorin, Nigeria.

**Rensheng Luo** tells me that the NMR and MS facilities run as usual. He has recently worked with Bruce Hamper to explore 2d  $^1\text{H}$ - $^{13}\text{C}$  HMQC NMR applications on D-H exchange reaction of Isohumulinones and is a co-author on a submitted paper. He is Co-PI with Professor Xu, on a submitted proposal to fund a dynamic NMR study for molecular motors for an UMSL Research Award

**Lynda M. McDowell** now Associate Teaching Professor is always ready to provide updates on alumni and former colleagues. She and her husband Daniel Studelska live in Webster Groves and she sent us an article from the local news paper about former colleague Rudi Winter who lives in a retirement community there. Lynda was awarded a sabbatical leave for 23/24 to allow some course development work on Quantitative Analysis.

**Michael R. Nichols**, who serves as Associate Chair of the Department and Director of the Biochemistry and Biotechnology Program, was featured in UMSL Daily on his receipt of a major grant from the National Institutes of



2023 year-end graduate student get-together.



Mike Nichols in his research laboratory with graduate students **Ryan J. Domalewski** MS BS Biochemistry/Biotechnology 2021 and **Crystina Sinobas Pereira** BS Biochemistry/Biotechnology 2019

Health for his research on exploring the chemical imbalances in the human brain associated with Alzheimer's disease. He is pictured on the previous page in his research laboratory with two of his doctoral students.

**James J. O'Brien** reported on his recent graduates **Jack Harms** PhD 2019 and **Kristin Bales** BS 2017, PhD 2023. Jack after graduating taught for a while in the department teaching courses that included Quantitative Analysis, and Introductory Chemistry Lab courses during the COVID period. He is now with MilliporeSigma in St. Louis. Kristin is on the faculty at East Central College in Union MO. Jim and Leah O'Brien his wife and research collaborator travelled to Australia in May to visit his family—the first such visit in more than 10 years. Their NSF-funded research projects in molecular spectroscopy continue, but unfortunately we hear that retirement may be on the horizon.

**Christopher D. Spilling's** "last" doctoral student **Saroj Kafle** PhD 2023, graduated last May but we are not sure if Chris will be taking on any more students. One of his two labs is being remodeled into the new flow chemistry facility associated with the Active Pharmaceutical Ingredient Innovation Center that is planned to be built near the Mansion Hills apartments, located on University Boulevard which is a section of Florissant Road by the campus. He will collaborate with the Center. In his role as Vice Chancellor for Research and Economic and Community Development, he is working on the establishment of a Controlled Environment Agriculture Center of excellence on the north campus and the North County Workforce and Business District. He was also involved in the USDA's new Food Safety and Inspection Service Midwestern Laboratory in Normandy. This will certainly benefit the sciences on campus. On a personal note, Chris became a US citizen in August 2023 after having spent 37 years in the US. This year he celebrates 35 years at UMSL

**Keith Stine** is in year two of a second term as Department Chair. His research group has three continuing PhD students and **Palak Sondhi** graduated in December 2023 and is currently seeking a position locally. In summer 2023, his lab hosted Cailey Shanks from University City High School in the CLIMB program. High school student Alice Liu from Marquette High School who worked in his lab in 2022-2023 was selected to be a member of

the US team that competed in the International Chemistry Olympiad in Switzerland in July where she won a silver medal. She presented her research in the Honors Division of the STL Science Fair and won second place. Two students Bradley Gallow and Delyanie Bray did undergraduate research in his lab in 2023. A research publication appeared in *Journal of Visualized Experiments* in 2023 and featured the work of **Palak Sondhi** PhD 2023, on developing hierarchical nanoporous gold and a video of the process was posted in the online journal. Together with PhD student Taiwo Adeniji, he published a review on the detection of contaminants of emerging concern using nanostructured electrodes in *MDPI Coatings*, and with PhD student Naila Haroon, he published a review on the detection of hormones using nanostructured electrodes also in *MDPI Coatings*. And with all his PhD students, he published a book chapter on methods for detecting endotoxins in *Advances in Clinical Chemistry*. He continues as a member of the consortium of UMSL faculty who together with Professor Demchenko (now at SLU) are involved in a project to develop compounds for the treatment of sepsis. Closely related is a collaboration with the Bauer lab on curcumin derivatives that are promising for the treatment of sepsis and possibly COVID-19. He was among many students and faculty from the Department to attend the recent Midwest Regional Meeting of the ACS at the Saint Charles Convention Center in October. His group presented a talk and three posters and he chaired two sessions.



Chris Spilling registers to vote at a table set up by the League of Women Voters of Metro St. Louis for newly naturalized citizens at the Thomas F. Eagleton United States Courthouse. In August 2023.



*Dr David Armbruster BS 1973 celebrating the life of his cousin Dr. Charles W. Armbruster*



*Eike Bauer with Dr. Greg Wall, BA 1974, MS 1982, at the Celebration of Life for Dr. Armbruster*

Finally we are delighted to announce that in November, 2023, he married Feiyan Wang, and together over the Christmas holiday break they went on a tour of New Zealand and visited some of her family members, and hope to meet her parents in China in 2024.

**Lukasz Studeaska's** teaching involves Introductory Chemistry, Physical Chemistry and co-teaching Physical Chemistry Lab with Dr McDowell. Since joining the Department as an Assistant Teaching Professor, Lukasz has emphasized the use of metacognitive techniques in his courses. In recognition of these efforts, he was invited to participate in the Digital Leadership Forum in Atlanta in February, 2024. He was able to modify a number of laboratory experiments from Intro and P. Chem. Lab to make them more accessible for students and reduce the need for chemicals. In response to the evolving educational landscape and the imperative set forth by the ACS regarding the integration of computational chemistry into the Physical Chemistry curriculum, Lukasz embarked on an ongoing initiative to prepare teaching and research quantum chemistry workstations. He initiated efforts to secure funds for the procurement of essential software (Q-Chem) and hardware (Linux Workstations equipped with NVIDIA GPU units). This undertaking is aimed at creating a robust infrastructure capable of incorporating computational chemistry components into our teaching curriculum as well as providing a platform for undergraduate and graduate research. Additionally, Lukasz is an advisor faculty for the UMSL Chem Club and a faculty advisor for our undergraduate students.

**Chung Wong** tells me that the Wong group, this year, took on Victor Anyanwu, a first-year student from Nigeria in the PhD program, a few months after Ibidun Isaac another Nigerian joined the group. Victor, Ibidun, and postdoctoral fellow Justin Spiriti attended the 2023 Joint Midwest/Great Lakes Regional ACS Meeting held in St. Charles. Justin reported having a good conversation with alumnus **Shailendra Kumar** PhD 1982, after his presentation there. Dr. Kumar is now a professor at Governor's State University in Chicago. Former postdoctoral fellow, Baojing Zhou, continues to publish with the group this year.

**Jinjia Xu** is completing her second year on the faculty. After joining us in Fall 2022 as an organic chemist Jinjia has made a great start in

her independent research career, receiving a grant for \$100K entitled "Printable Electrochemical Biosensors for Spinal Cord Injuries Biomarkers Detection Using Hybrid Nanocomposite Inks Based on Zwitterionic Conductive Polymers" from the Missouri Spinal Cord Injury/Disease Research Program SCIDRP. She is one of three recipients of funding from the Banavali Green Chemistry Initiative and has published articles acknowledging support and



*Chancellor Emerita Touhill speaking at the Celebration of Life for Dr. Armbruster*

has received other research support from both UMSL and external sources. Since joining the department she has many pending external research proposals, had 10 articles from previous work appear and has submitted 7 articles. She has handled the seminar program in Spring 2024 and seems to have assimilated very well into the department.

### **.EMERITUS, RETIRED, AND FORMER FACULTY**

The life of **Charlie Armbruster** who died in May 2022, was celebrated on Sunday, 23 April 2023, when about 60 former students, colleagues, friends and family spent a wonderful afternoon reminiscing about the founder of the department. We wrote much about him in the 2023 edition of the UMSL CHEMIST so here we only describe the event. The MC was **Mike**



*Michael Finkes BS 1973, MS 1978, with Linda Finkes in the Fall 2022 issue of Legacy News honoring their Legacy Gift to the University*

*Finkes* BS 1973, MS 1978, and a program with speakers including yours truly, former Chancellor Blanche Touhill and Keith Stine. Our alums who spoke were *Mark Pozzo*, BS 1978, MS 1982, *Mark Leiber* BS 1980, MS *Leslie Tucker* BS 1969, *Mike Hauser* BS 1981, MS 1986, *David Armbruster* BS 1973, and *Harold Messler* BS 1970, followed. Others spoke including members of the Mestemacher family who were very close to Charlie and some former UMSL students of his from other disciplines. In addition many tributes were displayed on posters and read at the event.

*Lawrence Barton* and his wife *Patricia J. Barton* BA 1978 are now well into their second year in Shell Point Retirement Community in Fort Myers, FL. He continues to be very active in the Chemistry Alumni Council, which held three successful events in the past year and also in writing the UMSL CHEMIST and struggling to maintain contact with former students. It is more difficult now doing much of the work remotely and also because the UMSL administration has denied access to some of the tools he has used for more than 25 years. He also serves as the webmaster for the department and the Retirees Association and has been involved in selecting candidates for the Distinguished Alumni Lecture. He is pleased that his alumni nominees for recognition in the Sixty for 60 program honoring outstanding alumni from the past 60 years, *David Henton* BS 1967 and *Dawn Shiang* BA 1983, PhD 1988, were selected and that others *Ella Jones* BA 1987 and *Martin Hayes* BS 1999 were also honored. The process isn't over yet and he has other nominations in the hopper! In addition to UMSL work, he serves as President of the Men's Golf Association at Shell Point Golf Club and averages more than three rounds of golf per week. After very little travel since the epidemic, he and Pat took a tour including the Grand Canyon, Monument valley, Lake Powell, Bryce Canyon and Zion National Park. Unfortunately he slipped and broke his wrist in Zion on the penultimate day of the trip! He and Pat are enjoying their new home and also visiting their grandchildren and a new great grandchild.



*Eric Block, faculty colleague from 1967-1981, with his PhD advisor E. J. Corey*

*Eric Block*, who was on the faculty from 1967 through 1981 and is now retired from the University of Albany, where he was Carla Rizzo Delray Distinguished Professor of Chemistry until retirement, splits his time between New York and California. He sent this picture with his PhD advisor at Harvard, Nobel Laureate E. J. Corey. Rudi Winter was a Corey postdoc in the mid-1960s and *Harry W. Orf*, BS 1970 obtained his PhD degree at Harvard with Corey.

*Janet Braddock-Wilking* came into my office when I was in the department in April 2024 with her husband Bruce Wilking, Professor of Physics Emeritus. She is featured on the next page with her former student *Yanina Levchinsky-Grimmond*, BS 1997, MS 1999, *Brian Grimmond* PhD 1999 and their mentor Joyce Corey last year.

*James S. Chickos* now retired, but thinks the retirement party we held for him was only yesterday, worked with Hal Harris and Jim O'Brien in completing repairs on the our updated GCMS. His former student, *Patamaporn Umnahanant*, PhD 2007 spent a couple of months doing research in his research lab this past Spring. He is still to be found in his office hiding behind a double large screen computer writing up his work. Jim established an endowed scholarship in honor of his late brother Nick for chemistry majors this past year.

*Joyce Y. Corey* continues to live in her home in Bellerive Acers with 24/7 care but I was most pleasantly surprised when *Jean (Huhmann) Vincent* BA 1991, PhD 1996, doctoral student with Joyce, and I visited her in April 2024. We had a very engaging conversation for about 90 minutes. As seen in the photograph, Joyce does receive visitors and appreciates them.

*Alexei V. Demchenko*, now chair of the chemistry department at Saint Louis University and sorely missed in the department, was not treated well here by inexperienced administrators and overall short-sighted policies during the Covid epidemic. He has many friends in the department and I was pleased to run into him in New Orleans at the spring ACS meeting. He continues his productive collaboration with Keith Stine and received the ACS *Melville L. Wolfrom Award*, Division of Carbohydrate Chemistry and Chemical Glycobiology for 2024.

**David L. Garin** inaugurated an annual science policy lectureship in the department. The initial lecture was in October and featured Dr. Arti Garg, founder of Engineers and Scientists Acting Locally (ESAL). Garin recognized the organizational work provided by Professors Stine and Bauer in producing the program. He is looking forward to the next lecture which will probably occur during the fall semester 2024. The lectureship is funded for at least another 7 years. Dave and his partner Margaret Hermes visited the Bartons in Florida for few days in January 2024.

**Joseph Feder**, we were sad to read, died last February. He taught biochemistry in the department in the evenings from the beginning through the late 1980s. He was a *Distinguished Science Fellow* at Monsanto in St. Louis and was most helpful and supportive. He took early retirement from Monsanto and became President of *Invitron* in 1990 and later *ISTO Technologies*, where Joe held roles of President, Chairman and CEO.

**George Gokel** told me that recent students are doing well. **Helena Spikes**, who finished her doctorate in January 2023, is now working as a process development scientist at Millipore Sigma here in St. Louis. **Michael McKeever** PhD 2022 is a Pharmaceutical Chemistry Lecturer at the Swansea University Medical School in Wales. He also holds the position of "DEI Lead." In that connection, he has just written a guidebook for developing DEI programs and his University has received a grant for £4.5 million to further their DEI programs. **Joseph Meisel** PhD 2016 is Assistant Professor at the George Washington University in Washington DC. In December, he presented a plenary lecture on his research work at the North American Supramolecular Congress in New Orleans. He also recently became the father of a baby girl. Dr. Gokel is still involved in research into enhancing antimicrobial potency. He has three coworkers currently involved in various aspects of the project. He is seeking funding from the government and investors for his startup called *Upaya Pharmaceuticals*. He will be lecturing in April to a Conference on Ion Transport in China. He will be traveling to Korea in the summer to train at the Kukkiwon Tae Kwon Do headquarters in pursuit of his sixth degree black belt.

**Bruce Hamper** retired from teaching in 2023 and was accorded Emeritus status. He excelled here being selected for an Outstanding Teacher Award. Dr. Hamper received his BA degree from Kalamazoo College and his PhD from the University of Illinois-Urbana. He began with Monsanto in St. Louis, and later joined G.D. Searle to pursue discovery medicinal chemistry. This led to research assignments in Pharmacia and Pfizer following a number of industry mergers/acquisitions. He joined UMSL in 2010. Although now retired his lab is still funded and research will continue for the foreseeable future. He and students Trevor Smith (PhD candidate) and Tyler Kanady (BS expected 2024) have continued to pursue flow chemistry methods. With assistance from Profs. Keith Stine and Hal Harris, UMSL hosted the Chemistry Olympiad in the spring 2023. It was a highly successful event that resulted in two students selected for participation in the United States National Chemistry Olympiad (USNCO) summer camp in 2023. One of the USNCO students, Alice Liu, was selected to represent the US Chemistry Olympiad team in international competition in Switzerland in the summer of 2023.

**Hal Harris** was term-limited out of Chairmanship of the City Creve Coeur Energy and Environment Committee, and retired as Chair of the ACS St. Louis Section Investment Trustees, after 18 years in that position. He is



Dr. Arti Garg, inaugural **David L. Garin Science Policy Lecturer** with Dr Garin at the lecture last fall.



Reunion of the 1990s Corey Lab. From top l. to r. Professor Emerita **Janet Wilking** (BA 1986), **Brian Grimmond** (PhD 1999 with Joyce), bottom Joyce Corey, and **Yana Levchinsky-Grimmond** BS 1997, (MS 1999 with Janet). Photo credit, Eike B. Bauer



Rudi Winter in his apartment in a photograph that appeared in "Neighbors in Webster Groves" in Sept 23.

Treasurer of the Americans United for Separation of Church and State St. Louis Chapter, and is playing competitive tennis as Captain of a USTA team that won the St. Louis District Championship in 2023. He and Jim Chickos help to maintain some of the mass spectrometry instrumentation in the Department.

**Marcel L. Halberstadt** one of the earliest faculty members in the department died in September 2022. He was on the faculty from 1965 through 1971. He was a physical chemist and taught intro and physical chemistry. After UMSL, he went on to work at Bendix, which was within the automobile industry but at that time produced time of flight mass spectrometers. Marcell finished his professional career as director of the environmental department at the *Motor Vehicle Manufacturers Association* in Detroit. His life story, too long to recount here, was most interesting. From a Jewish German family that escaped the Nazis, he and his sister were raised by a southern France family before they came to the US. He was given the French name Marcel to avoid discovery of his heritage in those very dark days in war time Europe. He received his PhD degree from Yale and did postdoctoral work at the National Bureau of Standards before joining UMSL.

**Jane A. Miller** who died in 2021 was honored in February 2023 at a Celebration of Life at Glen Echo Country Club where the inaugural *Jane A. Miller Award* was presented to Elizabeth Peterson, BA Biology 1979. See below.

**Nigam P. Rath** told me he had 4 publications during 2023 and did some consulting. His wife Suchitra retired in January 2024, and they will

be spending time traveling since both of them are now retired. They are enjoying the Pacific Northwest.

**Rudolph E. K. Winter** and his wife Margaret continue to live in their retirement community *The Rockwood*, with 25 other residents, in Old Webster Groves. The Editor and Pat Barton were pleased to be able to visit them again in May 2023. Rudi was doing fine then, unfortunately I heard in April, this year, that he was recovering very slowly from heart surgery which replaced the heart valve he had replaced 18 years ago. The photograph at left appeared in the publication *Neighbors of Webster Groves* last September and I appreciate Lynda McDowell's sharing it with me. Asked what his advice is for the younger generation, Rudi declared "Save Your Money" plus "Don't Smoke (anything)" and "Don't Forget to Keep Active".

## STAFF

**Joy Manore** Senior Business Specialist II replaced **Keila Gonzalez** last year and now runs the offices for the sciences. **Daniel Cranford** is Coordinator, Lab Operations and the part-time glassblower is **Brent Dummit**. We have two professional Technical Staff members, **Dr Rajamoni Jagan** is the X-Ray diffraction Lab Director and **Dr Bishal Nepal** is the Microscopic Imaging and Spectroscopy Technology Lab Fellow.

## ENDOWED UNDERGRADUATE

### SCHOLARSHIPS AND FELLOWSHIPS

Because of the generosity of alumni, friends and faculty members, the department is able to provide support in the form of scholarships and fellowship to deserving and needy students. The editor attended the awards celebration in 2023 and was very impressed by the number of awardees and also the level of diversity among them. It was a very happy occasion preceding the presentation of the Distinguished Alumni Lecture by **Justyce Jedlicka**, BS 2009, MBA 2018,

**The Charles W. Armbruster Undergraduate Scholarship** honors the late Dr. Charles W. Armbruster, who served as Chair of the Division of Science and as the first department chair. The Scholarship is given to incoming Missouri resident undergraduate transfer students One was renewed for **Samantha Aarons** and another went to **Aimee Moore**.

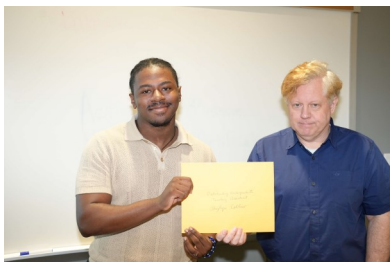


At the Celebration of Life for Jane Miller when **Elizabeth Petersen** BA Biology 1979 received the inaugural **Jane A. Miller Award**. From left **Joan Twillman** BA 1980, **Jeanette Hencken** BA 1985, **Petersen**, **Sandy Mueller** BA 1976 and Prof. Charles Granger, Biology





**Zahria Patrick** receives the *ACS Junior Chemistry Major Award* from Dr. Stine. She also received a *Lawrence Barton Scholarship* and was designated as an *Outstanding Undergraduate Teaching Assistant*.



**Shylyn Collier** receives an award for *Outstanding Performance in Organic Chemistry* from Dr. Stine. He also received the *William and Erma Cooke Memorial Scholarship* and was designated as an *Outstanding Undergraduate Teaching Assistant*.



**Ermioni Dhefto** receives an award for *Outstanding Performance in Organic Chemistry* from Dr. Stine. She also was awarded an *Eric G. Brunngraber Undergraduate Research Fellowship* and the *Rath Family Scholarship*,

The **Lawrence Barton Scholarship** is designed primarily for junior chemistry majors who are first generation college students and who have financial need. Scholarships were awarded to **Zahria Patrick** and **Megan Boeve**.

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 who has worked on behalf of and supported the department for many years. A fellowship went to **Natasia Zyryznova**.

The **Eric G. Brunngraber Undergraduate Research Fellowship** honors the late Dr. Eric G. Brunngraber. He was the first regular biochemistry faculty member. For 2023-2024 fellowships went to **Emma Stovall** and **Ermioni Dhefto**, who was also the 2022-23 recipient.

The **William and Erma Cooke Memorial Scholarship** 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. **Shylyn Collier** had his 2022-2023 scholarship renewed. This was the first major alumni-supported endowed scholarship at UMSL.

The **Eugene and Joyce Corey Scholarship** goes to an outstanding undergraduate who has excelled in service to the department. It honors the late Eugene Corey who served on the faculty from 1969 to 1988, and Professor Emerita Joyce Corey. For 2023-2024 awards went to **Maria Serra Bonet** and **Rayan Bouchana**.

**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. For 2023-2024 awards went to **Samantha Aarons** and **Hassad Seoud**.

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 2023-2024 award went to **Michael Nicholas**.

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. For 2023-2024, two students, **Aimee Moore** and **Emma Stovall** received scholarships.

The **Stephen S. Lawrence Scholarship** was

established by **Steve Lawrence** BA 1982, PhD 1989 and is awarded to junior or senior chemistry majors who are good departmental citizens. An award went to **Faro Rodakowski**.

The **Rath Family Scholarship**, established by Nigam and his family, is for full-time undergraduates studying STEM and preference may be given to Chemistry/Biochemistry students. The 2023-2024 award was renewed for **Ermioni Dhefto**.

The **Gary S and Kathy A Jacob Endowed Scholarship** established in 2016, is awarded to incoming students with at least ACT scores of 24 or to existing students with a GPA of at least 3.0. This year, scholarships went to **Ryan Raumwifstphang** and **Avigail Davidovitz**.

The above funds, awarded as scholarships and fellowships to undergraduates, amounted to just under \$47,000

The **M. Thomas Jones Memorial Fund** honors Dr. Jones who was in the department for 21 years. It funds an annual award for the top graduate student seminar in each semester. Awards went to **Dava Talasila** (Fall 2022) and **Palak Sondhi** (Spring 2023).

The **Rudolph E. K. Winter Graduate Scholarship**, initiated by **Robert Zehr** BS 1976, MS 1979 and supported by alumni and friends, provides stipend supplements for worthy incoming PhD students preferably majoring in some aspect of organic chemistry. Scholarships were awarded to **Sai A. Bezawada** and **Khushboo**.

## STUDENT PERFORMANCE AWARDS

### Undergraduate

Awards for the *Outstanding Performance in Introductory Chemistry* went to **Rayan Bouchana**, **Avigail Davidovits**, and **Ryan Ruamwifstphong**. The Award to the *Outstanding Student in Sophomore Chemistry* went to **Ryan Karpowicz**. The *ACS Award for Organic Chemistry* went to **Ermione Dhefto**, and **Shylyn Collier**. The *ACS Award for Analytical Chemistry* and in *Physical Chemistry* went to **Campion Smith**. Aid to Education Awards were given to **Zahria Patrick**, **Kyle Donaldson**, **Faro Rodakowski**, **Douglas Paxton**, **Theodore Davich**, and **Bradley Gallow**.

Awards to Outstanding Undergraduate Teaching Assistants went to **Shylyn Collier**, **Taejun Yoo**, **Samiksha Yogi**, **Zahria Patrick**, **Essence Rowe**, and **Dylan Brookshire**. The ACS-St. Louis Section's Outstanding Junior Award went to **Zahria Patrick** and **Dylan Brookshire** and **Campion M. Smith** shared the **Alan F. Berndt Outstanding Senior Award**.

### Graduate

The *Graduate Student Research Accomplishment Award* went to **Palak Sondhi** and the *Ceil deGutis Award for Research Excellence* went to **Shika Grover**. The *Jack L. Coombs Outstanding Graduate Teaching Assistant Award* was shared by **Ryan Domalewski** and **John Mayginnes**. The *Outstanding Masters Student Award* was **Mikayla Kingsley** and the *M. Thomas Jones Memorial Fellowship* for the outstanding seminar presented by a Doctoral Student went to **Dava Talasila** (Fall 2022) and **Palak Sondhi** (Spring 2023).

### THE ROBERT W. MURRAY LECTURE

Our signature lecture, endowed by gifts from alumni, faculty, family and friends, was established in 1998 to honor **Robert W. Murray** who joined the faculty at UM-St. Louis in 1968 after a very successful ten-year career at Bell Labs. He was born in Brockton, Massachusetts, and received degrees from Brown University, Wesleyan University and Yale. He served as department chair and in 1981 he was the first chemist in the University of Missouri system to be appointed Curators' Professor and was an internationally renowned scholar. He received the ACS St. Louis Award in 1974, the Midwest Award in 1989, the University of Missouri Presidential Award for Research and Creativity in 1990 and the I. H. Weldon Medal of the Canadian Pulp and Paper Association in 1994. In May 2001, Dr. Murray was presented with the St. Louis Academy of Sciences Peter H. Raven Lifetime Achievement Award. He retired and was appointed Curator's Professor Emeritus in 1999 and died of natural causes in 2012. **Professor R Rachel Segalman** was the 24<sup>th</sup> Robert W. Murray Lecturer. She is James and Edward Noble Kramer Professor of Materials at the University of California – Santa Barbara and she spoke on "Charge-neutral polymer complexes as battery components" on 9/11/23

The 25<sup>th</sup> lecturer will be **Professor Carlos J. Bustamante** Professor of Chemistry, Physics



Professor Rachel Segalman the 24<sup>th</sup> Robert W. Murray Lecturer, with Professor Jinjia Xu at the Murray Banquet at the Glen Echo Country Club in September

and Molecular and Cell Biology and The Raymond and Beverly Sackler Professor in Biophysics, at the University of California – Berkeley, who will speak on October 7, 2024.

### DISTINGUISHED ALUMNI LECTURE

The 36<sup>th</sup> Annual Distinguished Alumni Lecture was presented by **Justyce Jedlicka** BS 2009, MBA 2018 who is Food and Beverage Regulatory Liaison at MilliporeSigma in St. Louis. She has been active in the St. Louis Chapter of the Society of Cosmetic Chemists since 2005 and served in many roles including Chapter Chair twice. She currently serves as the Chair and Executive Board Member of the Food Science Section of American Council of Independent Labs, a board member of the Independent Laboratories Institute, member of the International Association of Food Protection, International Society of Beverage Technologists, AOAC International and of the American Chemical Society. She presented a most engaging lecture: "Chemical Bonds of Business: Grow Your Network" on Monday, April 24, 2023.

The 37<sup>th</sup> Annual Distinguished Alumni Lecturer will be **Professor Robert A. Stockland**, PhD 1999. Robert is Professor of Chemistry at Bucknell University in Lewisburg, PA.

### EDITOR'S COLUMN

I don't get back to St. Louis as much as I used to so it is harder to stay in touch with the status of the department. Last spring I attended and helped organize the Celebration of the



**Justyce Jedlicka** BS 2009, MBA 2018, the 36<sup>th</sup> Distinguished Alumni Lecturer

Life of Charlie Armbruster and it was a wonderful event, attended by about 60 people including alumni, faculty and Charlies friends and family. Among the speakers was Chancellor Emerita Blanche Touhill. We followed that with a smaller, but very nice event honoring the class of 1973. We receive great help from the Alumni Association and it is great to see that the dream **Mike Finkes** BS 1973, MS 1978, **Barbara Brown** BA 1986, and I had in 2006 establishing the Chemistry Alumni Council, certainly came to fruition with great success.

Covid-19 was a blight on the world and the department didn't fare so well either. However recent developments allow me to be much more positive in this message than I was last year. Our new young faculty colleagues JinJia Xu and Lucasz Szatkowski seem to be doing very well and a new colleague, Dr. Upendra Sharma was just confirmed. He is a synthetic organic chemist who utilizes flow techniques and most recently was a researcher at the University of Leuven, Belgium.

The academic year completed UMSL's first 60 years of existence. There were many campus-wide celebrations last year but we were determined to focus on the event honoring Charlie Armbruster so we had planned to celebrate the 60<sup>th</sup> anniversary of the campus in the fall. However that would have interfered, we were told, with ongoing campus wide events so we delayed our celebration and held an event *Sixty Years of Great Chemistry* this spring and it will be described next year. One aspect of the university's celebrations was to highlight, throughout the year of celebration, 60 alumni who apply one or more of UMSL's core values in the world and help to make it a better place. Of the sixty, four were chemistry majors and it could have been more but we were timed out. **Dr. David Henton**, BS 1967, from our first class, and retired from Dow Chemical Co., **Dr. Dawn Shiang**, BA 1983, PhD 1987, also retired from Dow, **Ella Jones**, BA 1988, Mayor of Ferguson, MO, and **Dr. Martin Hayes**, BS 1999, Chief of Staff, Global Neuroscience Research at AbbVie in Cambridge, MA., were all honored. Not bad, four out of a total of 60 campus-wide!!

The community around the campus is looking up for the department. The convent to the east of campus on Natural Bridge Road has been

demolished and a USDA food safety facility is under construction. Also the Advanced Manufacturing of Active Pharmaceutical Ingredients (API) Innovation Center, currently housed on the Cortex campus in mid-town is to be moved to the Mansion Hill Apartment site on University Boulevard adjacent to the campus. Both these new facilities by the campus will



*Governor Mike Parson signs House Bill 3007, approving \$15 million in grant funding for the advanced manufacturing of active pharmaceutical ingredients (APIs) and semiconductor computer chips as Chris Spilling looks on.*

be a boon to student part-time and full-time employment and collaboration with the department.

It has been a joy to write these newsletters to you and in doing so maintain contact and continue friendships with countless numbers of former students. I am so proud of what we have done in the department and I am so proud of how well you, our former students, have done in your careers.

I had the almost unique experience of starting my career essentially at the founding of a new university and continuing that involvement for almost 60 years, I am not sure how long my involvement will continue, nor that of my friend **Michael Finkes**, but we must move on and continue, and we will be looking for replacements from the faculty and from alumni, in the not to distant future.

Thank you for all your support, financial and otherwise. There is a university policy of not listing names of donors but you all know who you are. Please stay connected, attend our events to reconnect and let us know how your careers are doing. We need to know!

#### ACKNOWLEDGMENTS

I wish to thank Eike Bauer, and Jim O'Brien for providing photographs. I also acknowledge, **Patri-cia Barton** BA 1978, and David Garin for proofreading. Any errors, especially in content, are mine.

## UMSL Chemistry Alumni Fund

Enclosed is my contribution of \$ \_\_\_\_\_ Yes I work for a matching gift corporation.  
 \_\_\_\_\_ I would like information about bequests to the University.

**Designation for funds:**

- Chemistry Department Endowment \_\_\_\_\_
- Robert W. Murray Lectureship \_\_\_\_\_
- Eugene and Joyce Corey Scholarship Fund \_\_\_\_\_
- E. G. Brunngraber Fellowship (undergraduate research) \_\_\_\_\_
- Charles W. Armbruster Scholarship \_\_\_\_\_
- Lawrence Barton Scholarship \_\_\_\_\_
- M. Thomas Jones Memorial Fund (graduate student support) \_\_\_\_\_
- Rudolph Ernst K. Winter Graduate Fellowship Fund \_\_\_\_\_
- Outstanding GTA Award Dedicated to the Memory of Jack L. Coombs \_\_\_\_\_
- Unrestricted \_\_\_\_\_
- Other \_\_\_\_\_

Contact me; I have ideas for a new scholarship/fellowship or other fund \_\_\_\_\_

**You may also contribute to any of the Scholarships and Fellowships listed on page 16 which were established by the person for whom the award is named, by indicating in "other".**

Please make check payable to UMSL. "Chemistry Alumni Fund" and return to:

Keith J. Stine, Professor and Chair,  
 Department of Chemistry and Biochemistry  
 University of Missouri-St. Louis  
 St. Louis, MO 63121

You may contribute online at the UMSL website by clicking GIVE on the upper right of the site. Select the option "other" and type in the designation (e.g. Chemistry Department Endowment).

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### INFORMATION UPDATE SPRING 2024

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.

Name \_\_\_\_\_ UMSL Degree \_\_\_\_\_ Year \_\_\_\_

Current mailing address: \_\_\_\_\_

\_\_\_\_\_  
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Employer: \_\_\_\_\_ Current Position: \_\_\_\_\_

Recent Activities and Other News:

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News of other alumni:

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**UMSL CHEMIST**

**SPRING 2024**

**Please join the UMSL Chemistry Alumni Group on LinkedIn for announcements of alumni activities and other department events and news.**

**Please follow the department on Facebook. The following was established by and is managed by Eike Bauer**

<https://www.facebook.com/UMSLChem/>