



# UMSL CHEMIST

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## Chairman's Message - Keith J. Stine

The past year has been marred by an unexpected and difficult global event that we have all needed to adapt to and deal with as best possible. The pandemic has affected everyone although we hope there is now light at the end of the tunnel through vaccinations. Some have clearly lost much more than others. Most of us have gotten used to working from home, mask wearing, social distancing, and not really seeing all that many people at a time. Although the campus has not been able to hold an in-person commencement since December 2019, the Department held its own commencement on Zoom in May 2020 for graduates and the atmosphere was celebratory. The pandemic also touched off a serious financial crisis for higher education, especially in Missouri that resulted in budget cuts and the loss of two positions in the department in the form of retirements that for now will not be replaced. This led to a comprehensive review of certain academic programs on campus and the good news is that our Department and its programs emerged intact. We have also sought to meet the challenges by innovating in the past year, as we submitted for approval a series of new graduate certificates including one in analytical chemistry, and a new biochemistry option in the BA degree. A new Industrial Advisory Board organized by Mike Nichols held its first meeting in October to introduce the members to our degree programs. As is prevalent all over the world, much business is now conducted solely on Zoom and



*Dr. Stine with his former student Jay K. Bhattarai, PhD 2015*

something many faculty, staff and students had never heard of in February 2020 has become a part of everyday life. Faculty all needed to quickly adapt to online teaching and learn new technologies and means of instruction, becoming familiar with new ideas such as synchronous vs. asynchronous lectures and how to teach both lectures and labs in blended formats. All faculty participated in some form of additional training or workshops to get up to speed on online teaching. This change came rapidly in the second week of March when we left campus entirely for almost 3 months except for visits needed to maintain and monitor the safety of equipment and facilities. In June 2020, research by graduate students resumed with safety precautions and in adherence to social distancing schemes approved by the campus. While our courses including labs went fully online in summer 2020 enrollment was significantly higher than normal. Research has continued with the social distancing guidelines in place and some undergradu

ates have been accommodated in research labs once again. Since the last UMSL CHEMIST came out, the equipment purchased from the UM System Tier 1 grant initiated by Professor Dupureur has all largely been installed and is a major upgrade of many facilities. The support staff organization has changed although we are largely working with same people we know and have come to rely on such as Leah Trimble and Jasmine Maloney. Leah is now the Senior Business Specialist for the Sciences and Jasmine is Office Support Assistant III. The faculty continue to receive major grants and patents and publish in prestigious journals, and our graduates continue to be successful wherever they go to in industry, graduate studies, and professional fields. Local industry continues to hire our graduates at all levels throughout this situation. Our Department and its students and alumni should be proud of their accomplishments during this challenging year.

*Keith J. Stine*

## EVENTS

This section was previously called "Upcoming Events" but COVID-19 put a stop to all of the original plans. Celebrations of the 50<sup>th</sup> anniversary of the first three UMSL graduating classes in May 1967—1969 were very successful. We had planned a similar campus wide event for the class of 1970 on May 15 and 16, last year. That too was cancelled but one for the two classes 1970 and 1971 was held, via zoom, on May 15 this year. The Chemistry Alumni Council partners with the Alumni Association in these celebrations.

The Chemistry Alumni Council is currently planning an event to honor Jim Chickos who retired at the end of the summer, 2020. Expected to be in late fall, the date has not yet been set for obvious reasons. Announcements will be e-mailed to all alums and also put on the department website and the LinkedIn page. See page 10 for additional activities of the Chemistry Alumni Council and for all the announcements of activities of the group on the Department Website and on the UMSL Chemistry Groups on LinkedIn and Facebook.

## ALUMNI INFORMATION

## 1960s

**David E. Henton** BS 1967 was in touch with the editor in March. He was delighted to report a conversation he had with Dr. Armbruster in December 2020. Dave spent his career with Dow Chemical in Midland MI, and continues to consult privately on significant projects. He and his wife Barbara still are based in Midland but they also spend time at their western vacation home in Jackson Hole, WY and on their farm near Traverse City MI. In addition to consulting on polymer and green chemistry his avocation is hunting and fishing. And we reminisced about camping, floating and fishing in the Ozarks.

**Lloyd P. Hill** BA 1967 was in touch last May. He is retired from Mallinckrodt in St. Louis where he spent most of his career. He obtained a PhD in organic chemistry from Iowa State University, spent a couple of years with the St. Louis Crime Laboratory and then spent his entire career at Mallinckrodt except for a short period with Hoffman La Roche Nov 1997 – Mar 2000 where he started up a in-process control testing lab for Roche's new Advanced Pharmaceutical Ingredients facility in Florence, SC. He was pleased to receive the last issue of the UMSL CHEMIST and catch up with a number of graduates, **Harold Messler** BS 1970, and **Joe Bono** BS 1969, particularly. Both were in the field in which he started, forensics. He says that Harold was an excellent mentor in the early 1970's and that **Sandy (Aubuchon) Wisneski** BS 1985 and **Rich Wisneski** BS 1986, retiring from Mallinckrodt was news. Skip, as we knew him when he was a student retired from Mallinckrodt in 2015 and took an appointment as Adjunct Professor of Chemistry at Lindenwood University.

**Dr. Donald M. Kaesser** BS 1967 Licensed Psychologist, Certified Health Service Provider in Psychology is semi-retired in Des Moines IA. He and the editor continue to maintain contact. Don and his wife Pat visit Sanibel Island, in Florida each year close to where the Bartons now live.

**Joseph P. Bono** BS 1969 has been in touch several times in the past year. Joe is a very experienced and well-known retired forensic scientist which took him via the St. Louis County Police Department Laboratory 1974-1981, to Naples, Italy, 1981-1984, Pearl Harbor, Hawaii 1984-1986, and San Diego, 1986-1988. From 1988 - 2006 he was with the Drug Enforcement Administration and from 2006 - 2008 he was with the US Secret Service, Forensic Services Division, both in the Washington, DC/Virginia area, during which time

he gave our *Distinguished Alumni Lecture*. Prior to retirement he taught Forensic Science at IUPUI in Indianapolis. He and his wife Barbara now are back in St. Louis and Joe had been helping out on the chemistry alumni council prior to the pandemic putting a stop to almost everything.

**Gary S. Jacob** BS 1969, following graduation obtained a PhD degree in biochemistry from the University of Wisconsin-Madison and spent a successful 23 years with Monsanto prior to retiring and entering the corporate pharma world in New York City. He has served as Chairman and Director of numerous pharmaceutical companies in the past several years but here we describe the most recent. On January 7<sup>th</sup> of this year, he assumed the role of CEO of the public biotechnology company OKYO Pharma Ltd. that trades on the London Exchange. The company has an R&D program focused on ophthalmic diseases including dry eye disease and ocular pain. Also, in March of last year, he resigned from the CEO position he had with Immuron Pharmaceuticals Inc., an Australian company trading on NASDAQ, due to the COVID-19 pandemic. Since then, in April 2020, he joined the board of a private biotech company called Virpax Pharmaceuticals. .

## 1970s

**Dorothy Cooke** BS 1970 was in touch this past fall and we had a nice conversation. She received a MD degree from UM-Columbia School of Medicine in 1975. She and her former husband Al Greco BS biology 1971 established the first endowed scholarship in the department, the *William and Erma Cooke Scholarship*, in honor of her parents. She spent a career as a physician working in general private practice in internal medicine at various medical centers in St. Louis. She also spent time working with insurance companies where she tells she learned almost as much about medicine as she did in medical school. Frustrated with what she learned during that period she moved into alternative medicine and retired from that career about 11 years ago. She was the owner of *Integrated Health Options*. She is a champion of alternative medicine but is more of a champion as a grandmother to her grandchildren and spends much of her time taking care of them. Since retirement she has given workshops and lectured on alternative medicine

**John R. Kolb** BS 1970 was still in Sonora CA when we last communicated but was planning to move north. To quote "Judy and I are actively looking to get out of fire central and exploring north Idaho near a daughter and grandkids". John was in the first group of students in the Tobin

Marks laboratory at Northwestern University. Following his PhD he did postdoctoral research with F. A. Cotton at Texas A. & M. University before spending his professional career at the Lawrence Livermore National Laboratory. One feature of our last communication was his reminiscing about visiting England and Wales in 1981 and visiting with great pleasure York close to where that editor and his wife were married and where they visit as often as possible.

**Paul Blystone** BS 1975, whom we had hoped to meet in San Francisco had the ACS meeting been held, is now fully retired although he continues to consult. He tells me he is finishing house remodeling and was thinking of moving back to Marin County this year. He had talked to Greg Steiner who received a BS degree in Business Administration in 1976 but who took several chemistry and physics courses at UMSL, including from the editor.

**Roberta Farrell** BS 1975 has been in touch with the editor recently. She has been concerned about the health of her undergraduate research advisor, Professor Joyce Corey. Birdi, as she is known, hosted Dr. Corey at her home in New Zealand in January 2015. She and her husband Roy also spent a vacation with Joyce in the fall 2017 which included visits to Chile and Easter Island. The latter is one third of the way from Santiago, Chile, to Hamilton, NZ where Birdi and Roy now live. Birdi had been Professor of Biological Sciences at the University of Waikato in Hamilton, New Zealand since 1996 and assumed emerita status in 2013.

I read in Wikipedia that she is a researcher of international renown in the fields of wood degradation, bioremediation, mycology and enzymology. She received a PhD in biochemistry from the University of Illinois, Urbana, in 1980 and did postdoctoral research at the University of Chicago and MIT prior to an appointment, first as Associate Director of Research - Industrial Enzymes with Repligen Corporation, Cambridge, Massachusetts, in 1984 and then as Executive Vice President & Chief Operating Officer Sandoz Chemicals Biotech Research Corporation and Repligen Sandoz Research Corporation, a position she held from 1987-1996. She was recognized by her Majesty the Queen as a Companion of the

New Zealand Order of Merit (CNZM) in the 2009 New Year Honors in recognition of her services to biochemical research. In addition she has been involved in a project in Antarctica and studied the degradation of the wooden huts left behind by the expeditions of Scott and Shackleton in the early 1900s. She was a recipient of a UMSL Distinguished Alumnae Award in 2009 and lectured in the department on her work in Antarctica in spring 2009.

**Mark H. Owens** BS 1976, MS 1982 has been in touch with us twice since he retired from Mallinckrodt/Covidien/Curium in 2019 after almost 34 years with the company(s). He and his wife Theresa took a cruise February 2020 to the western Caribbean, stopping in Cozumel, Grand Cayman, and Falmouth Jamaica. They are settled in Branson, MO now although Teresa commutes back to St. Louis every other week to do some one on one teaching. Mark is employed in the Taffy Shop at Silver Dollar City and is enjoying it along with the discounts he gets in the resort in the off season when it is not so busy.

**Mollie Freebairn** BS 1977 keeps in touch with me these days, much better than I am able to reciprocate. Mollie is Executive Director of *Show Me Solar*. Founded in 2007, Show Me Solar is a grassroots, non-profit public benefit organization incorporated in the state of Missouri. She is also an environmental and political activist. She ran for the Missouri Senate District 6 in 2014. Her career was mostly with the Missouri Department of Natural Resources as an Environmental and Energy Scientist. She also worked at the Washington University School of Medicine and as a solar consultant at Missouri Solar Applications.

**Cheryl McClain (Rudloff) Shea** BA 1977 I rediscovered on Facebook this winter. In the 90s she used to send me interesting material for the UMSL CHEMIST. Much of it was about her company *Creative Marketing Solutions*. It is now clear to me that she has, and continues to enjoy, a remarkable and varied career. As a student and following graduation she worked for Carboline in St. Louis, as a Chemist, Group Leader in Polyurethanes, New Product Manager, Regional Manager and Senior Regional Manager from 1975 to 1992. In 1992 she started her own company and ran it through 2003. They had a variety of clients and did strategic marketing, advertising and web design for many clients. In 2000 she went to Logan College of Chiropractic where her biochemistry instructor was Professor John Gutweiler, and graduated in 2003. She established *Complete Wellness Center* in February of 2004, a company in Kirkwood MO which offers chiropractic,



**Dr. Roberta (Birdi) Farrell** BS 1975 taken on Easter Island in 2017 where she took a trip with her husband Roy and Dr. Corey for a pre-birthday trip for Joyce.



**Mollie Freebairn** BS 1977



**Cheryl McClain Shea** BA 1977

acupuncture, homeopathy and nutritional support for clients. She keeps in touch with some former classmates., **Gregory Pucel** BS 1977, who following graduation, attended the University of Missouri, Kansas City Dental School and after graduating from dental school, opened his practice in South St. Louis City. He left that location in 1996 and moved his practice to Chesterfield, MO where he continues. **Don O'Neal** BS 1977 is married to Cheryl's sister-in-law and has a food testing lab, O'Neal Scientific Services, Inc. in south St. Louis. Cheryl tell me that she has had 3 great careers and the current one really brings in her chemistry and understanding how the body works, digestion, nerve conduction, etc. She really loves it and admits to being definitely an "alternative medicine healer". She loves to find research on Pubmed for either older remedies (such as turmeric, ginger, essential oils). She still puts her investigative mind to work. Works about 20 hours a week, and travels as much as she can in her Class B camper van.

**Dennis Delfert** BS 1978 (also BA Biology) and his wife Liz (BA Biology 1977) we were pleased to see at the *Distinguished Alumni Lecture* via zoom in October, when his former classmate **Dr. Betsy Keath** BA 1978 was the lecturer. Dennis met Liz in Dr. Armbruster's organic chemistry class. He went on to complete a Ph.D. in biochemistry at the University of Illinois Urbana-Champaign in 1984. He returned to St. Louis and entered a post-doc. program in Clinical Chemistry, which was associated with Wash. U. School of Medicine. Then it was off to Abbott Laboratories where he spent 15 years as a senior research scientist in diagnostic medicine. He and Liz left Abbott in 2001. Dennis taught medical physiology and nutrition at Logan College of Chiropractic for 2 years (2001 – 2003) and moved to Lewis and Clark Community College for the start of the 2003 school year. He was Associate Professor and taught classes in anatomy, physiology and nutrition. Liz was a reference librarian at the St. Louis County Library headquarters, specializing in science and medical reference. Dennis retired as Professor of Biology from Lewis and Clark Community College at the end of 2017. Liz had retired earlier from SIUE as Assistant Professor / Science and Health Sciences Librarian in order to become the primary caregiver for her brother and mother. She did continue to work part-time for several years at various positions including grant writer/researcher for Wings of Hope and as a librarian at Hickey College. The couple moved to Oregon in 2018 to be near their daughter who is now chair of the mathematics department at Central Oregon Community College in Bend, OR. They enjoy the

mountains, rivers and lakes of their new home state. Dennis continues to teach anatomy and physiology on a part-time basis at the same college as his daughter. With his own roots firmly established in Dr. Armbruster's organic chemistry it gives him pleasure to share the beautiful chemical structures of physiologically important molecules with his students.

**Marc Pozzo** BS 1978, MS 1980. retired from Pfizer in June 2020 after almost 42 years with the company as it morphed from Monsanto, Searle, Pharmacia and finally to Pfizer. He started as a Research and Development Specialist, then became Research Advisor, followed by Group Leader and retired as Research Fellow and Group Leader. He remained on the technical ladder his entire career and enjoyed the people and scientific challenges all along the way. He spent his last years in biologics mainly developing glycoconjugate vaccines and antibody drug conjugates which proved to be the most complex and challenging projects in his career. Last spring his group at Pfizer started developing the COVID-19 vaccine. After he retired he was part of the phase 3 clinical trial started over the summer in which he actually got the vaccine. He describes himself on LinkedIn as a grandchild developer.

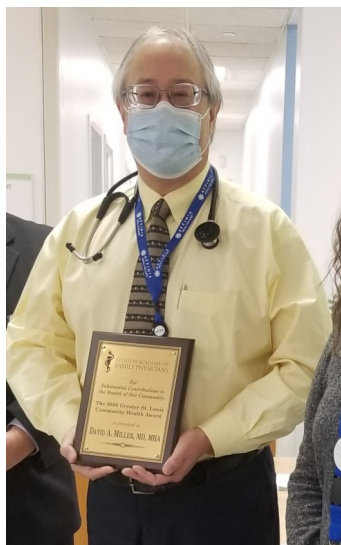
**Barbara A. Soltz**, PhD 1979 was in touch this year following receipt of the UMSL CHEMIST. She gave me information on three high school students who spent summers doing research in the department. Her son David who worked in my lab is now Director of Patents at Infinera, a fiber optic transmission company, and is far more challenged managing Barb's millennial grandchildren! Ronnie Reisler worked for Dr. Chickos and is now a leading expert in Ebola transmission, currently applying his expertise to COVID-19 for Army R&D at Fort Belvoir, Virginia. Morris Hartstein, who also worked with me, is a practicing ophthalmologist in Ra'anana, Israel and has, in fact, examined one of her grandsons at the time he was applying for fighter pilot training in the Israeli Air Force.

### 1980s

**Michael Rocchio** BA 1982 is an Account Manager for PPG and sells and services coatings for mostly the heavy duty equipment and transportation markets. This includes pretreatment chemicals, electrocoat, liquid paint and powder coatings for Agricultural and Construction equipment, RV's, Utility Trucks, Boats and similar products. He has been in the Chemical or Coatings Industry for 4 different companies since graduation including Convatec, Rohm and Haas in addition to PPG.



**Marc Pozzo** BS 1978, MS 1980



**Dr. David A. Miller** BA 1983 with his 2020 Greater St. Louis Community Health Award



**Ella Jones** BA 1987, the Mayor of Ferguson, MO



**Steven A. Kolodziej** BA 1987, PhD 1992

**David A. Miller** BA 1983 and also in Biology was honored with the St. Louis Academy of Family Physicians' 2020 Greater St. Louis Community Health Award for "special contributions to the community of public health, health education and providing health services" in recognition of his ongoing service coordinating multiple COVID-19 testing sites throughout the City of St. Louis for uninsured and underinsured patients through his organization, Affinia Healthcare, a federally-qualified community health center. To date, over 27,000 patients have been tested. David obtained his MD from the University of Missouri-Columbia Medical School in 1989. He also obtained a Master of Health Administration from Webster University in 2017 and a Community Health Center Executive Fellowship from the University of Kansas Medical Center in 2019.

**James Essinger** MS 1983 is Head of Chemistry at *The Gowan Group* which is a global, family-owned agricultural solutions business headquartered in Yuma, Arizona, U.S.A. He did his undergraduate chemistry at Ohio Northern University and spent five years at Monsanto in St. Louis as a senior Process Chemist, through 1984, and again from 1989-1999 as a Research Specialist. He joined Gowan in 2014 after spending 15 years with *Scott's Miracle Grow*, as a Research Fellow in Maryville, Ohio.

**Floris Homan** BS 1984, PhD 1989 has been Senior Director for Quality Control at Ocular Therapeutics in Bedford, MA, since December 2020. He was previously in a similar position with Alnylam Pharmaceuticals in Cambridge, MA, for almost four years. He moved from St. Louis where he had been Senior Director, R & D, at KV Pharmaceuticals for almost 11 years, with his wife **Peggy (Ponzar) Homan** BA 1985, to Albany, NY., to become Senior Director Global Analytical Development at Albany Molecular Research Inc. in 2010. They have lived in Massachusetts for about four years. In New York they lived in Clifton Park and we wonder whether they came across **Brian** PhD 1999 and **Yana (Levchinsky) Grimmond** BS 1997, MS 1999, who have been in Clifton Park since 2001.

**David Regan** BA 1984 was in touch recently. He reminded me that I tried to talk him into joining the PhD program when he graduated that December but after 5 years of taking courses both in the day and at night while working 40+ hours a week, he had to step off the treadmill and live. He spent five years in Kansas City with Ciba Geigy and then Carter Waters Corporation. He then worked as a Senior Applications Chemist with Cabot Cor-

poration in Tuscola, IL from 1989 – 1994 before moving to Indianapolis where he completed his career, first as Technical Director with EPI and then spending 17 years with Eli Lilly in environmental health and safety. He "took a package" and retired in 2018 and spent a couple of years teaching at St. Mary-of-the-Woods College in Indiana, as Adjunct Professor of Chemistry.

**Rajiv M. Banavali** PhD 1985 is back in the US after spending two years with Huntsman Corporation in central Singapore serving as Global Vice President for Research and Technology. He has been Senior Vice President for Science and innovation at WestRock Company in Atlanta since June 2020.

**Ella Jones** BA 1987 made the network news and the major newspapers when she was elected Mayor of the City of Ferguson in June 2020. I recall Ella as a student here and as a recent graduate as she came to see me for advice about her work. She was with Washington University School of Medicine and then KV Pharmaceutical following graduation. She now has a major public role, initially being elected to the Ferguson City Council. Prior to her Council election, she completed training in municipal leadership from the Sue Shear Institute for Women in Public Life at UMSL. After being elected to the Council, Ella pursued additional education from the Municipal Governance Institute sponsored by the Missouri Municipal League and earned a certificate as a Municipal Official, and is serving her second term on the Environmental, Energy and Sustainable Development Committee. Her listing of public appointments, positions and interests is remarkable and a tribute to someone so much involved in public service. She was the Commencement speaker for all the virtual UMSL Ceremonies on Dec 9, 2020, one of which I enjoyed watching.

**Steven A. Kolodziej** BA 1987, PhD 1992 is an Associate Research Fellow, BRD, Biotherapeutics Pharmaceutical Sciences and a Group Leader in the Conjugation and Polypeptide Process Development Group at Pfizer, Inc., in St. Louis. We wrote about him last year and are delighted to note that he received a *Distinguished Alumni Award* from UMSL for 2020. Like many of our current students, Steve transferred to UMSL from the St. Louis Community College and went on to great success. He participated in one of the College of Arts and Sciences Hellen and Will Carpenter Series on Contemporary Issues in American Society Lectures in 2015. In 2012 he began a very productive collaboration with Curators' Distinguished Professor of Chemistry Alexei V. Demchenko. One of Steve's hobbies is music—he



**Siddharth Kamath** MS 1989

is the bass guitarist for the group Roofrockers.

### 1990s

**Siddharth Kamath** MS 1990 is a research faculty member at the University of South Florida School of Medicine in Tampa. His expertise is in bioinformatics and he uses it to figure out underlying biological mechanisms in neurodegenerative diseases. His wife Sharmila also works at USF and at the moment they are pleased that their children Neil, who works in the San Francisco area, and Rachna a frontline health care worker are staying with them, thanks to COVID-19.

**Jean (Huhmann) Vincent** BA 1991, PhD 1996 has been Senior Vice President R&D Specialty Additives at Evonik, in Bethlehem PA since July 2020. Formerly she had been Vice President Advanced Polyurethanes Product Line since 2017 in Allentown PA. Jean spent 18 years with Air Products prior to that and had completed a postdoc at Los Alamos National Laboratory following graduation from Dr. Corey's research group. Evonik acquired Air Products in 2017 so Jean didn't have to uproot when her job title changed.

**Kathleen (Rordan) Talkington** BA 1991 is a research Associate at Tolmar a pharmaceutical company in Fort Collins, CO where she has been since 2014. Formerly she was a Quality control analyst with the company. Following graduation she was with American Water Co in St. Louis and also spent 15 years with R & D Laboratories in Washington MO.

**Marla J. Williams** BS 1992 is an Intermediate Scale-up Support Scientist at Spectrix Analytical Services, in Princeton, NJ. She has been in New Jersey with several pharmaceutical companies since 2000 and prior to that she was in Texas doing similar work.

**(Roberta) Ann Vu** BA 1992 was Manager of Quality Control with Steris in St. Louis from 1989 through 2000. Since then she had a series of management positions including Director of Global Quality for Bausch & Lomb in Rochester, NY from 2000—2011, then successively Site Director with Ortho Clinical diagnostics, Senior Director for Quality Network optimization and later for world wide biosurgery quality, with Ethicon in Somerville, NJ and since 2016 she has been with Zimmer Biomet, in Palm Beach Gardens, FL, as Vice President for Quality and Regulatory Affairs. She attended Smith College Executive Leadership consortium in 2012 and obtained a law degree from Concord Law School Kaplan University, a global online program which is part of Purdue University, in 2015.

**Michael Groaning** BA 1995, MS 1996 had for 11 years been with Endocyte in West Lafayette, IN but moved to Boston in May, 2020 to become Global Medical Affairs Lead—Prostate Cancer at Amgen. His position with Amgen is actually "based" in Thousand Oaks, CA but he works remotely. He had been with Roche Pharmaceuticals both in Basel, Switzerland and Boulder Colorado, following his postdoctoral studies at ETH Zurich. He obtained a PhD from Colorado State University.

**Kim Gorman** BA 1993 tell us that the pandemic created an incredible 12 months for her company. She is President of PTC Laboratories and GenTrait Laboratories in Columbia MO. Kim and her family founded PTC in 1996 for the sole purpose of performing human DNA testing. The company expanded its activities into pharmacogenomics in 2003, at that time a brave venture, but the company has seen great success. In very early 2020 they were asked if they would be willing to perform COVID-19 testing. They were set up well for this and after validation by the CDC they went online on March 17. Right away they were testing 100 per day and by July they were averaging 2,700 per day. They provided a 24 hour turn-around and were the laboratory of choice for any agencies that could not wait the 7 days or more required by the large laboratories. They were loaned equipment by the state health department and by Bayer and immediately it was running continuously. Equipment was in short supply in the US after April and they needed an additional extractor but were rescued when the CDC stepped in to obtain one for them. She observed excellent cooperation among all the agencies to assure that testing was not interrupted. She and her colleagues went six months without days off and usually worked 10 hour days. Then it all slowed down in December, as rapid antigen kits become available, and she didn't think they would be needed for COVID-19 testing much longer. In other parts of the world COVID is just hitting. When we communicated Kim had just returned from St. Lucia where they donated some equipment and the Bayer instrument was to be shipped there soon. What a great story!

**Tim A. S. Marzan** BS 1996, MS 2005 has been with the FDA Laboratories in St. Louis for almost four years doing analytical chemistry. Prior to that he had been with Mallinckrodt for 20 years and Monsanto for a couple of years. Following graduation he was with Chemsico and then Ralston Purina.

**Eric Bruton** BS 1997, PhD 2003 is a research scientist with Boeing in St. Louis. In 2017 he was nominated by the editor to be his replacement as ACS Councilor for the St. Louis Section. Eric was elected Councilor in 2017 and now serves as Chair of the ACS Council Committee on Economic and Professional Affairs. He completed his doctoral research for our former colleague Lee Brammer with whom he studied hydrogen bonding interactions in inorganic and organic compounds using single crystal crystallography. He worked at Chemir Analytical laboratories while in graduate school, where he solved problems posed by customers in a variety of chemical areas. He next spent some time at Monsanto in the development of a new nutraceutical product, as well as the characterization and screening of new catalysts. After finishing his doctorate, Eric was with Crosslink, a small R&D company, working on a variety of projects using conductive and electro-active polymers for the development of flexible photovoltaic devices and electroluminescent lighting (Superflex) for soft-walled military structures for the DoD. Then he worked for Jost Chemical in their R&D group focused on new product development and problem solving. He also taught part-time at Lindenwood University. In 2015, he joined Boeing's Chemical Technology Group in Boeing Research and Technology. He has been an active member of the leadership of the St. Louis Section of the ACS, serving as Chair when the Section was honored with the Award for Outstanding Performance by a Medium-Large Section in 2012. Eric presented the Distinguished Alumni Lecture in the department in May.

**Elizabeth A. Ambrose** BA 1997, PhD 2002 sent us a message last May when everything was shut down at the University of Minnesota where she and her research group were working remotely. She was also looking forward to presentations by students and herself and chairing a symposium session at the ACS meeting in San Francisco which became virtual. The same applied to the Philadelphia meeting when she and her students participated virtually.

**Jeffrey Scholten** BS1997, MS 2001 is Manager of Drug Substance Development at Galera Therapeutics in St. Louis. He spent time with the Searle/Pfizer/Monsanto companies until they changed their focus and since then he was with Sensient and Jost Chemical Co., prior to the move to Galera in 2019.

**Gretchen Peck** BS 1998 is Director, Strategic Projects & Business Development, Global External Supply at Pfizer with whom she has been for 20 years. She is now in Collegeville PA, but she

began with Pfizer in St. Louis, spent some time with the company in Groton CT, returned to St. Louis and has now been in PA since 2015. She seemed very proud to share news about progress on the development and the eventual the rollout of the Pfizer/BioNTech COVID-19 vaccine in several posts on LinkedIn.

### 2000s

**Jamila Owens Todd** BS 2000 who also received a doctorate in Naturopathic Medicine from the Canadian College of Neuropathic Medicine, in Toronto Canada, is R & D Manager at Beleaf Medical, a Marijuana manufacturing company in St. Louis, where she is a colleague of **Stephanie (Cowan) Cernicek** BS 2011 PhD 2017.

**Angela (Schmitt) McKnight** BS 2001, MS 2003 is now a Senior Regulatory Affairs Specialist at Stereotaxis in St. Louis, where she has been since August 2020. She began her professional career with Mallinckrodt where she spent 5 years then at Huvapharma Hv, and with Steris for 8 years prior to joining Stereotaxis

**Patrick Fitzgerald** BS 2005 is a Laboratory Technician at Bayer Crop Sciences in St. Louis. Since graduation he has worked at Celis, Mallinckrodt and Jost Chemical Company.

**Lori (Bowen) Gwyn**, Ph.D 2005 who completed her PhD degree with Professor Dupureur is now Associate Professor of Biochemistry and Director of the Office of Sponsored Programs at Southwestern Oklahoma State University.

**Shu Yao** BS 2005 received a PhD degree from the University of Wisconsin with J. F. Berry having started with Larry Dahl, who turned out to be a second mentor to her. Shu is CEO and founder of Green & Clear World Environmental Engineering Inc., in Brossard, Quebec, Canada. She did postdoctoral research at the University of Calgary and returned to China to work on a startup company to develop a portable waste management system using gasification technology. She expanded the technology in Montreal, and built several demonstration projects in China. During that period, she was elected member of the People's Representatives 5 2015-2020 for the city of Shenzhen and was involved in legislation for laws on mandatory waste sorting. Based on her experience she has published two science educational science books on waste sorting and environmental protection. In spring 2020, she moved back to Montreal Canada to join her husband and 5 year old son.



**Eric L. Bruton** BS 1997, PhD 2003.



**Shu Yao** BS 2005 with her husband Jonathan Hudson and their two children.

Her husband Jonathan has a PhD in chemistry from McGill and they met when he was doing his postdoc at Wisconsin-Madison. He later decided to get a MD degree, and started to practice as a family physician in Spring 2020. Their second child was born in Nov 2020

**Chris Vaughn** BS 2006 has been a Senior Scientist with Plus Therapeutics in Austin TX since 2017. He spent 6 years at Alcami in St. Louis as a HPLC chemist before moving to Texas to work at DPT Laboratories for three years in San Antonio, prior to his current position.

**Saibal Bandyopadhyay** PhD 2008 is Chief Scientific Officer with Freeflow Medical Devices in Mount Joy PA. He did postdoctoral research, served as a lecturer and also a Research Scientist at Ohio State University until 2015 when he moved with his family to Pennsylvania.

**Christy (Vanpreter) Hamilton**, BS 2008, MS 2015 has been with Thermo Fisher since 2018. She is a Downstream Operations Training Specialist.

**Matthew Stockel** BS 2009 MS 2011 is Biotech Market Development Manager at Millipore Sigma in St. Louis and has been there since 2014. I understand he and his wife had a new baby not so long ago. Congratulations.

**John Schmitz** BS 2006 is now Senior Manager of Production—Perfusion Process at Thermo Fisher Scientific in St. Louis. Formerly Patheon, the company is world-wide with revenue exceeding \$30 billion. John moved there two years ago after spending 12 years with Covidien/Mallinckrodt/Curium and as the company morphed he moved from Production Supervisor with Covidien eventually to Principal Process Engineer with Curium Pharma.

**Nathan Birhanu** BS 2009 is an investment banking associate at ClearSight Advisors and is based in Washington, DC. Prior to ClearSight, Nathan worked as a mergers and acquisition valuation associate at PricewaterhouseCoopers in New York City. After graduation Nathan spent approximately five years in the Peace Corps in Southern and Eastern Africa and then completed a dual masters in economics and political economy at Fordham University.

### 2010s

**Kristen R. (Sachs) Friedman** BS 2010 is a Senior Associate Quality Assurance with Pfizer in St. Louis. She joined the company in 2010 following graduation and spent five years as a Technical Specialist in Plant Manufacturing/Sample Handling and another five years as Scientist in Micro-

biology/Biochemistry prior to her current position which began in 2000.

**Stephanie R. (Cowin) Cernicek** BS 2011, PhD 2017 is Chief Science Officer BeLeaf Medical in St. Louis where she has been since receiving her PhD degree with Professor Beatty. It was announced early this year that Stephanie received a C-Suite Award from the St. Louis Business Journal. These awards recognize exceptional leaders at local organizations and the program was founded in 2019. As a student at UMSL she was one of the editor's undergraduate advisees and she also played the trumpet in the UMSL jazz ensemble.

**Stephen A. Costin** PhD 2010 spent two years doing postdoctoral research at the Louisiana State University Health Science Center before moving into a teaching position. He began his academic career as Associate Lecturer in Chemistry at the Louisiana School for Math, Science and the Arts before taking a position as Assistant Professor of Chemistry at the River Parishes Community College in Gonzales, LA

**Patrick M. Skornia** BS 2011 has been with Mallinckrodt Inc. in St. Louis since 2012 and is now a Quality Technician IV.

**Brian Huesgen** PhD 2012, who wrote his thesis on a chemical education project with Hal Harris has been with Carboline Co., in St. Louis for about 10 years and is now Global Process and Quality Manager.

**Shana Terril-Usery** PhD 2014 is Manager, Downstream Process Development at Thermo Fisher Scientific, formerly Patheon.

**Silke L. Evdokimov** MSBB 2014 spent four years with Harker BIO in Buffalo NY, first as Senior Scientist and finally as Director of Protein Technology. She then spent just over 2 years as a Team Lead R & D with Enko in the Boston area and is currently founding partner of her own consulting company in Amherst, MA

**Allan J. Alla** PhD 2016 was in touch in May 2020. He is currently a Lecturer at the University of Technology and Applied Sciences in Muscat, Oman, teaching college chemistry. He taught for three years in the Philippines at Malayan Colleges Laguna following his graduation from UMSL. He hopes one day to return to the US to seek more opportunities.

**Elizabeth Ridgeway** BS 2016 went on to the St. Louis College of Pharmacy, now the University of the Health Science and Pharmacy in St. Louis where she obtained a PharmD degree, in 2020.



**Nathan Birhanu** BS 2009



She is now a full-time Pharmacist with Walgreens in St. Louis.

**Steve Skaggs** BS 2016, MS 2018 is now a doctoral student in chemistry at St. Louis University.

**Brandon Wood** BS 2017 who has been with Dynalabs in St. Louis since Nov 2017 was appointed Investigation Analyst II in March 2020. Following graduation he spent 18 months as a Quality Control Chemist with SABRE—Security Equipment Corporation also in St. Louis.

**Kevin Kalka** BSBB 2019 started with Thermo Fisher as an Operations Technician/Cell Banking Technician II. January 2021.

**Chris Wilke**, BSBB 2019, former undergraduate researcher in the Bashkin lab was recently hired as a Cell Line Development Scientist by Pfizer.

**Michael McKeever**, MS 2018 is a doctoral student in the Gokel Laboratory. He came to UMSL having earned a BSc degree in chemistry at Queen's university Belfast and a MA degree, from St. Louis University also in chemistry.

## 2020s

**Giri R. Gnawali** PhD 2020 also graduated from the Spilling laboratory in December and is joining Prof. Wei Wang's laboratory at Baylor College of Medicine, Houston, Texas to do postdoctoral research in the design, synthesis, and characterization of small molecules as probes for the study of biological function.

**Nyasha Makoni** PhD 2020 completed her research in the lab of Professor Michael Nichols, successfully defending her thesis on *Interactions of the NLRP3 Inflammasome Complex* that focused on expressing and purifying the three proteins that form the complex and studying their biophysical properties. She will be joining the lab of Professor Xin Lu at University of Notre Dame where she will work on cancer immunology with particular emphasis on breast and prostate cancers. She will be studying the tumor microenvironment and the design of effective combination immunotherapies.

**Matthew Murphy** BS 2020 is now a doctoral student in chemistry at Washington University in St. Louis. He is the newest member of the Patti Lab. The group, led by Dr. Gary Patti, utilizes metabolomics to better understand novel biochemical mechanisms of disease. As an undergraduate he worked in Ben Bythell's lab and when the latter left he began work with Bruce Hamper on the quantification of humulones in beer. This is interesting because he had worked

for 13 years, between his undergraduate degree in history and economics at St. Louis University, at the Schlafly Brewery in St. Louis, first as a Cellarman and then for 10 year as a Quality Specialist.

**Dharmendra Neupane** PhD 2020 completed his research with Dr. Stine on: *Applications of Nanoporous Gold to Drug Release and Glycoscience*. He joined the Food and Drug Administration, Center for Biologics Evaluation and Research; Silver Springs, MD, to do postdoctoral research with Professor M. Florencia Haurat, on: glycoconjugate vaccines based on liposomes.

**Rishi Paudel** PhD 2020 graduated from the Spilling lab in December after completing his thesis: *Synthesis of Phosphonomethyl Tetrahydrofurans and Phostones*. He has joined Baylor College of Medicine, in Houston, Texas to do postdoctoral research with Prof. Jin Wang' Lab on synthesis for drug discovery.

## THE CHEMISTRY ALUMNI COUNCIL

Again the CAC was active virtually and was ably led by **Michael Finkes** BS 1973, MS 1978. Since 2017 we have held Golden Anniversaries for the classes of 1967, 1968 and 1969. These were in conjunction with campus wide celebrations and were very successful. We have planned a virtual alumni reunion for the Golden Anniversaries of the classes 1970, which we were unable to do last year, and 1971, on May 15. We also hope to host an in-person celebration of these 50th Anniversaries at a later date, tentatively set for Aug 28. In addition, later in the fall we hope to honor the retirement of Professor Jim Chickos after 51 years on the faculty in person in early November.

**We need help! Anyone interested in reconnecting with the department, joining the CAC, and working with a great group of committed alums should contact [lbarton@umsl.edu](mailto:lbarton@umsl.edu)**

## GRADUATES, DEC. 2019—DEC 2020

### DECEMBER 2019

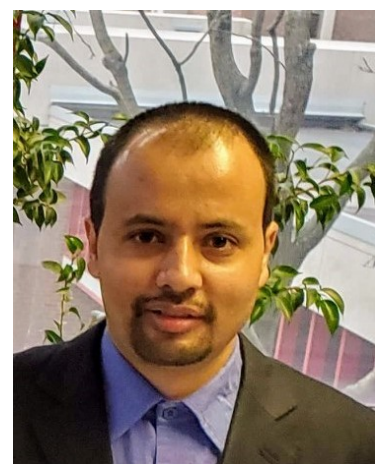
Mohammed H. A Albinsaad BS	Mithila D. Bandara PhD
Trevor M. Bick BS	A. M. Kagarama BA
Matteo Panza PhD	Brendan M. Ratay BS
James W. Long MSBB	Ema C. Mathai MSBB
Challen A. Pretorius MSBB	Chis Wilke BSBB

### MAY 2020

Mark Eissler BS	Scott Geringer PhD
Daniel Hoard BS	Kapur Dahmi MS
Michael McKeever MS	Eric Mossotti BS
Matthew Murphy BS	Sana Qalbani BA
Irina Seegolev BA	Nicole Scott BS
Evan Stephenson BS	Ryan Uding MS
Christopher Zhao BS	



**Dharmendra Neupane** PhD 2020 following graduation in December



**Rishi Paudel** PhD 2020 who worked with Dr. Spilling.



**Nyasha Makoni** PhD 2020 who worked with Dr. Nichols

*BS in Biochemistry/Biotechnology*

Kristin Vera Briggs	Emily Harris
Tracie Close	Kevin Kalka
Amer Hassan	Emily Ngo
Atika Malique	Jacob Roeglin
Monica Orosz	Kenneth Sipe
Najma Sherzoy	Madori Staley
Alexandra Souza	William Teller
Moriah Swoboda	
Joshua Tondre	

*MS in Biochemistry/Biotechnology*

Connor Bodeman	Tanner Emring
Shane Paul Haley	Ebony Hughey
Dorcas Kamau	

**AUGUST 2020**

Shelby Jarrett MS	Doxey Phillips BA
Kristin N. Bales MS	Shikha Grover MS

*BS in Biochemistry/Biotechnology*

Shayna M. Mueller	Shane Edward Pitman
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*MS in Biochemistry/Biotechnology*

Shayna Marie Mueller	
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**DECEMBER 2020**

Giri Raj Gnawali PhD	Nyasha Makoni PhD
Dharmendra Neupane PhD	Rishi Ram Paudel PhD
Doxey Marie Phillips BA	Allyson R. Henke MS
Kellsie B. Jurkowski MS	Rachel N. Patty BS
Tram Thi Thuy Tran BS	

*BS in Biochemistry/Biotechnology*

Chase Barnes	George August Bohn
Bianca Anamaria Buie	Lawren D. Champagne
Cynnaron Cole	Benjamin D. Holland
Dominic Ricardo Mestre	Joshua David Neeter
Bailey M. Pinette	Jamison L. Rucker
Emily Layne Staden	Hanna Mae Ward

*MS in Biochemistry/Biotechnology*

Michael Lay,	
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**THE FACULTY**

**James K. Bashkin** is always proud to talk about his current and former students. **Ruth Kvistad**, BA Biology 2020 with a minor in Philosophy an Honors College student and former member of his research group, has some notable accomplishments this semester. Ruth is a pre-med student and Philosophy major, and she won the Munson Scholarship for philosophers. The essay that she used for the scholarship was discovered by a professional philosopher who is now helping Ruth publish it in a Philosophical journal. Ruth also worked with an Iranian virology group to help them publish their work on potential treatments for colorectal cancers based on her experience with HPV in the Bashkin group, and she will be a co-author of that and future papers. She was recently admitted to a joint MD/JD program at Southern Illinois University. Also, his former visiting postdoctoral scholar, Dr. Souparnika Sreelatha, was promoted to Assistant Professor at the Srinivas Institute of Medical Sci-

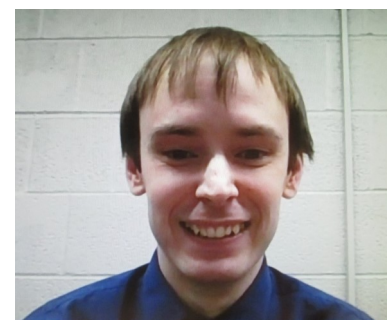
ence and Research Centre, Mangalore, India.

**Eike B. Bauer** who serves as Director of Graduate Studies has been frustrated that he can't take his regular trips to see his family in Germany in the summer and at Christmas, due to the pandemic. However he has been busy and loves to tell me about his students. Former undergraduate researchers **Evan Stephenson** BS 2020 and **Shane Pitman** BSBB 2020 graduated. **Mike Barnes-Flaspoler** BS 2019 received the 2020 departmental Outstanding Master Student Award and MS research student **Kellsie Jurkowski** BA 2018, MS 2020 also graduated last year. .

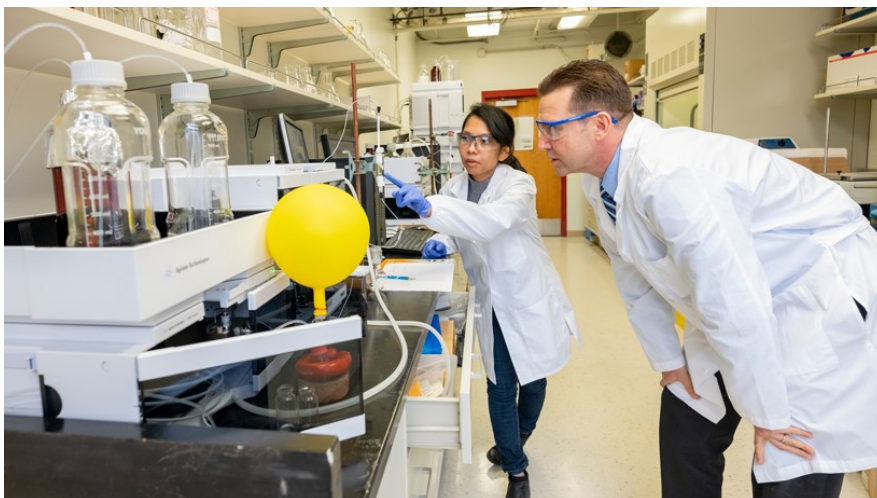
**Alicia M. Beatty** has been helping out in the X-ray Facility since Nigam Rath retired.

**Valerian T. D'Souza** will be teaching organic lecture again for the first time in many years, Organic Chemistry I (Chem 2612) this summer and next year in an online format.

**Alexei Demchenko** continues his highly productive externally funded research program in the area of Chemical Glycosciences. During 2020, his research group Glycoworld, published 17 research articles, bringing the total number of publications to more than 200. The Glycoworld currently consists of five doctoral students, and one undergraduate, and their research is funded by NSF, UM System Research and Creative Works Strategic Investment Program, and a collaborative NIH grant (with Keith Stine) that was renewed last year for another four-year term. Recent Glycoworld graduates **Mithila Bandara**, PhD 2019, returned to her native Sri Lanka where she is looking for a faculty position and **Scott Geringer** PhD 2019 joined Cayman Chemical Company in Michigan, where **Matteo Panza**



**Scott Geringer** PhD 2019 who did his research in the Demchenko lab.



**Alexei Demchenko** in his research lab with graduate student **Mithila Bandara** PhD 2019.

PhD 2019, another group graduate, also works. A postdoc Dr. Yashpal Singh, in 2020 moved to Purdue University to accept another postdoctoral position and reunite with his wife. Professor Demchenko is the National Representative of the USA for the International Carbohydrate Organization and 2020-2021 Chair of the Division of Carbohydrate Chemistry of the American Chemical Society. Updated information on current research, teaching, and outreach activity of the Glycoworld is available on the department website or @Glycoworld (Twitter)

**Cynthia M. Dupureur** joined the Provost's office on campus on Nov 1, 2020 as a Faculty Fellow for Faculty Success. She will lead efforts to provide a variety of professional development opportunities for faculty across campus (including mid-career and non tenure-track faculty) that have a special focus on NSF ADVANCE-related initiatives pertaining to gender- and race-related diversity, equity and inclusion in STEM, the social sciences, and other disciplines. She will also oversee the institutionalization of nascent faculty initiatives/programs, including the Women's Faculty Network and the Associate-to-Full program. Her group adapted to COVID by doing their candidacy exams back-to-back and attending a number of regional conferences online. Movie night this year was a virtual watch party to see the Madam Curie biopic "Radioactive".

**George W. Gokel** has been editing and writing the update of *Comprehensive Supramolecular Chemistry II* with fellow editors Jerry L. Atwood, UM-Columbia and Leonard J. Barbour Stellenbosch University, South Africa. Dr. Gokel was featured in LinkedIn where the review article in the *Journal of Coordination Chemistry*: "Crown ethers having side arms: a diverse and versatile supramolecular chemistry", was featured. It was dedicated to Professor Jerry L. Atwood, on the occasion of his retirement as Curators' Professor at UM-Columbia. Dr. Gokel's coauthors were Michael R. Gokel, an electrical engineer who holds a courtesy appointment at UMSL and is Gokel's son, **Michael McKeever**, MS 2020 and a current graduate student, **Joseph W. Meisel** PhD 2016 and now on the faculty at George Washington University, **Saadeh; W. Nagin**, PhD 2012 and currently a postdoc with Dr. Gokel, **Mohit Patel** PhD biology and Shahren Yin a research technician with Tupaia Pharmaceuticals where his colleagues include the Gokels, and Drs Negin and Patel.. A photograph at right was taken in 1989, and shows Drs Gokel and Atwood here in the picture with colleagues identified in the caption.

**Bruce Hamper** who is now Associate Teaching Professor, since spring 2019, continues to develop introductory chemistry courses in beer brewing and online content for general chemistry. In addition undergraduates David Auston and Dustin Barton have joined the Hamper lab to investigate synthesis of vaccine polysaccharide-protein conjugates and **Claire Brook**, PhD 2004 with Prof. Wes Harris, has joined the research effort for development of continuous flow synthetic methods.

**Jack Harms** now in his second year as Assistant Teaching Professor, taught quantitative analysis, instrumental analysis, P-chem lab II, P-chem lab I, P-chem II lecture, and worked with Prof. McDowell on Chem 1111 labs. He introduced a significant number of new experiments in all of these courses. It is hard to see how he found the time but he also worked with three undergraduates as research students (Dominik Kosican, Jennifer Grinder, and Jessica Doshi) on using a Raman spectrometer for undergraduate lab courses. He continues to be a co-author on recent papers from the O'Brien, lab four during 2020-21 and he is also the chemistry club advisor and has begun advising chemistry majors.



From upper left clockwise, George W. Gokel, the late William Pirkle, Jerry Atwood and Andrew D. Hamilton at a conference together in 1989.

**Steven M. Holmes** has a doctoral student **Austin Stelling** BS 2019 in his lab and Fuxing Shen a postdoc from Nanjing University. He does much work with his magnetometer located in the Center for Nanoscience that is now working well. His spouse Keeta Holmes is now the UMSL Registrar.

**Rensheng Luo** reports having a busy year in spite of the Covid-19 shutdown and both NMR and MS labs are running well. He says he needed approval to come in to the lab regularly.

**Lynda M. McDowell** continues to teach chem 1111, and chem 3312. She is working on completing the Association of College and University Educators Course in Effective Online Teaching Practices, and completion will lead to a nationally recognized certificate in college instruction. She also continues as our Advanced Credit Program representative. She advises many Biochemistry and Biotechnology majors.

**Michael R. Nichols** is currently serving as the Associate Chair of Chemistry & Biochemistry and as the Chemistry & Biochemistry Master of Science Program Director. He continues to investigate mechanisms of protein aggregation and inflammation related to Alzheimer's disease (AD). Unfortunately, after 3 years of planning, the pandemic caused the cancellation of the 2020 American Society for Neurochemistry national meeting that was to be held in St. Louis/St. Charles hosted by Dr. Nichols, UMSL, and three other universities. In 2020, the Nichols lab accepted a new doctoral student, **Cristina Sinobas Pereira** BSBB 2019, and graduated a doctoral student, **Nyasha Makoni** PhD 2021. Current doctoral lab members are fourth year student, Kapur Dhama, third year student Shikha Grover and the aforementioned Cristina. He also has a MS student and three undergraduate students in the lab. Research has continued to progress, albeit at a slower pace during the pandemic. The lab has utilized some of the time to catch up on writing manuscripts and grant proposals.

**James J. O'Brien** had an undergraduate student, Carol Welch, present at the Undergraduate Research Day at the Capitol for Missouri legislators, held this year as a virtual event. Her presentation was entitled Spectral Analysis of Platinum Fluoride. In 2020-2021, thus far he has published 4 articles, 2 in the *Journal of Molecular Spectroscopy* and 1 in *Journal of Molecular Structure*.

**Christopher D. Spilling** had his title changed from Vice Provost for Research and Graduate Studies to Vice Chancellor for Research, Economic and Community Development. Two of his PhD students, **Giri Gnawali** and **Rishi Paul** graduated in December. He published a review paper with colleagues from France "Lipolytic enzymes inhibitors: A new way for antibacterial drugs discovery" Jean-François Cavalier, Christopher D. Spilling, Luc Camoin, Thierry Durand, Stéphane Canaan *Eur. J. Med Chem.* **2021**, *209*, 112908. The editor was

pleased to be able to visit Chris during a very brief trip to St. Louis in March. The two of them, along with Professors Stine and Bauer sat and sipped beer while his wife Kathy laboriously weeded the garden.

**Keith Stine** Keith is well into his second year as Department Chair. He is now working with a group of three PhD students: Dhanbir Lingden, Bishal Nepal and Palak Sondhi. Brittany Richardson recently joined the lab as an undergraduate researcher. **Dharmendra Neupane** recently received his PhD and is now a postdoctoral associate at the FDA lab in Silver Springs, Maryland. **Jay Bhattarai**, who completed his PhD with

Professor Stine, helped in the MIST lab for three months and then accepted a position as a senior analytical chemist at Mallinckrodt. His lab continues to collaborate with the Glycoworld lab of Professor Demchenko on some projects involving nanoporous gold and carbohydrate synthesis. His lab is also participating in the UM System supported glycoscience consortium effort to study analogs of lipopolysaccharides that are important in the disease of sepsis. He also was a part of the tier 1 grant from the UM System for which Professor Dupureur is the PI and through which a number of major new instruments were delivered and installed such as a new scanning electron microscope in September 2020. A project on lipid monolayers and their interaction with glycoalkaloids with a view towards drug delivery applications is being pursued by graduate student Bishal Nepal. His group published research articles recently in *Sensors and Actuators A*, *Journal of Drug Delivery Science and Technology*, and *MDPI Nanomaterials*. Article in collaboration with Demchenko lab appeared in *Chemical Communications* and in *Chemistry: A European Journal*. Review articles and chapters written together with his students appeared in *MDPI Biosensors* and in *MDPI Coatings* and together with the Demchenko lab in the encyclopedia *Comprehensive Glycoscience*.

**Janet Braddock-Wilking** is now the longest serving member of the inorganic chemistry group. She and her colleague, Cynthia Dupureur and their students published a paper on luminescent 2,7-disubstituted silafluorenes in the *Journal of Organometallic Chemistry* in 2020 and a recent paper was published on the Group 14 Metallafluorenes as Sensitive Luminescent Probes of Surfactants in Aqueous Solution in the *Journal of Fluorescence*. She and husband Dr. Bruce Wilking, retired UMSL Professor of Physics and Astronomy, have two sons, the youngest Kevin is still at home. He graduated from Rolla with a mechanical engineering degree and had



Mike Nichols who became Associate Chair of the Department this year.



Chris Spilling is now Vice Chancellor for Research, Economic and Community Development.

an internship lined up then Covid hit, but he is taking some classes part-time via the WU/UMSL engineering program. Their older son Alex received a M.S in Communications in 2017 from Boston University is a marketing specialist for several breweries in the Boston area. Alex and his fiancé, Hanna are returning to St. Louis from Boston and Janet and Bruce were looking forward to that very much.

**Chung Wong's** undergraduate researchers this year included Brittany Richardson, Madori Staley, Lawren Champage and Nina Paljakka-Cargo. Two High School students worked with him as did MS students Seungho Jang and Manoj Ponagandla (from Computer Science). He and his students published three articles in 20-21, one in *Life*, one in *Protein Science* and one in *Protein Structure, Function and Bioinformatics*.



Jane Miller with her favorite former students, clockwise **Jeanette Hencken**, BA 1985, **Sandy Mueller**, BA 1976, **Joan Twillman** BA 1981 and **Liz Petersen** BA Biology 1980.

### EMERITUS, RETIRED, AND FORMER FACULTY

#### *In Memoriam: Jane A. Miller (1928—2021)*

**Jane A. Miller**, professor emerita died Wednesday, March 17. She was 93. Jane was one of six regular faculty members in the department when Dave Garin and Lol Barton joined it in 1966. She grew up in Louisiana and attended the all-

women's Agnes Scott College in Decatur, Georgia, where she earned her bachelor's degree in chemistry in 1948. The college awarded her an Outstanding Alumnae Award in 2016. She went on to receive both her master's and doctoral degrees in chemistry from Tulane University in New Orleans, and she relocated to St. Louis, where she first worked as a researcher at the Washington University School of Medicine before moving to UMSL.

Jane was one of three women faculty members hired in 1965 and was the first woman hired in the department, two years after the university's official opening. She later became the first woman in the department granted tenure. She taught introductory chemistry and was in charge of the laboratories in the early days, as she researched in the history of chemistry. She later began teaching a senior-level course in the history of chemistry. Her academic interests were in the history of chemistry and chemical education, and she inspired a number of female students to pursue careers teaching chemistry, as highlighted in a [2017 UMSL Daily story](#). She maintained contact with them and a special group, led by **Liz Constance-Petersen** BA Biology 1980, were very supportive of Jane, especially in her later years. The picture shown at left was taken in 2019 and the group of alumnae are retired science teachers, all mentored by Jane.

During her career, Miller wrote extensively on women in science, the history of chemistry and also wrote a history of the St. Louis Section of the American Chemical Society. She also ran the Midwest Junta for the History of Science for many years and was active in the ACS Division of the History of Chemistry. She also was a founder of what is now a STEM program to encourage girls to enter the sciences. In its early days the program was called *Expanding Your horizons*.

She retired from UMSL in 1992 and received a UMSL Trailblazer Award in 2013. During retirement she was very active in the Washington University *Life-Long Learning Institute* and also the *Wednesday Club*. She was a longtime resident of University City, where she served on the Board of Trustees and is a former President of the University City Public Library Board of Trustees as well as a former Traffic Commissioner. She is survived by her son, Bill Miller.

**Charlie Armbruster** still lives in Orlando but had a difficult year. In the midst of the Covid crisis he had a recurrence of an electrolyte imbalance that put him in hospital a few years ago. This time he was again there for about two months—unable to

see friends and receive visitors. He is now home and feeling better. Unfortunately he doesn't get to play bridge due to the pandemic but really enjoyed a conversation in December with David Henton BS 1967, who himself was excited to talk to Charlie and he and the editor had a nice conversation as result of that.

**Lawrence Barton** and his wife **Patricia J. Barton** BA 1978 didn't get to see their family for about 18 months due to the pandemic. He keeps busy doing some department work, mostly involving the website and the Chemistry Alumni Council, but manages to fill in his time with other activities. He and Pat spend most of their time in Fort Myers FL but still have the house in St. Louis. He managed to become President of the Home Owners' Association in their Florida Community, and it has not been easy—all the problems are people problems! He plays a lot of golf and runs a Saturday morning game involving up to 30 players each weekend. A couple of trips back to St. Louis to help daughter Cathy with the garden, and play golf with grandson Kyle is the extent of travel thus far. Lol and Pat, now fully vaccinated, look forward to attending grandson Sam's high school graduation party in Marquette MI in June where admission requires vaccination. There he will see Hilary's family including granddaughter Avalyn and son-in-law Jon. He was fortunate to be able to spend time with Andrew's children Megan and Jake, on his trips to St. Louis but was very disappointed that the annual Xmas gathering in FL this past year was cancelled. He continues his membership on the ACS Senior Chemist's Committee (SCC) and this year was most involved in SCC's efforts to combat systemic racism by raising funds for the ACS scholars Program and he has also been busy working with the Senior Chemists' Newsletter. Of course by far the largest task he has on the computer is maintaining contact with alumni and writing the UMSL CHEMIST.

**Eric Block**, who taught and did research in the department from 1967 through 1981, is now retired in California. Following the death of his wife Judith in 2015, Eric Block married Shellie Vanderzee in 2017. Their combined families include 5 children, their spouses, and 8 grandchildren, with twins on the way. Eric and Shellie celebrated the 2016 New Year with Lol and Patricia Barton, Hal and Mary Harris and other St. Louis friends in Fort Myers, FL in a condo owned by UMSL graduate Harry Orf BS 1971. Eric retired in 2018 after 37 years at the University at Albany, SUNY where he was Carla Rizzo Delray Distinguished Professor of Chemistry. Lectures in Eric's honor were presented at the 28th International Symposium on the Organ-

ic Chemistry of Sulfur, Tokyo, Japan, August 2018 and Eric delivered the 2018 Christopher S. Foote Lecture at UCLA, where he was a Visiting Scholar. Eric and his wife are surviving the pandemic in an over-55 community in Southern California. Before the pandemic, Eric was Visiting Professor at UC-Irvine. He would enjoy hearing from former students at [eblock@albany.edu](mailto:eblock@albany.edu).

**James S. Chickos** has been officially retired as of 1 Sept. 2020. He still has his research lab and is currently writing up some of his students' work. His "other" hip had been bothering him so he had replacement surgery at the end of March. He was able to visit his place in Garden MI twice during the past year. He still rides his bike and looks forward to more exercise once his hip has settled down. When he retired he was the second longest serving UMSL faculty member, (51 years) second only to Bob Henson in the Physics Department who joined the faculty in 1966, the same year as the editor.

**Joyce Y. Corey** goes into the department regularly and several colleagues, alumni and friends have stepped up to help her. I did not receive anything from Joyce although I chatted with her on each of the two visits to St. Louis this past year. However I did receive a very nice message from **Roberta L. (Birdi) Farrell** BS 1975 describing two vacations she had with Joyce, one in New Zealand where she lives and the other on Easter Island. I include a couple of pictures from the latter trips that Birdi kindly sent to me.



*Jim Chickos in 1969*



*Jim Chickos in 2019*



*Joyce Corey with Roberta L. Farrell BS 1975 in Chile in 2017*

**David L. Garin** is tutoring chemistry to his grandson who is doing high school chemistry lab at home using a lab kit and "chemicals" purchased in grocery stores. It has led to some amusing interactions. It has also led to some good in-depth conversations. Dave and Peggy

barely ventured out during the pandemic although they did exchanges visits on the patio with the Bartons last summer and had several zoom conversations during the year. One activity Dave has not given up is his bicycling.



**Harold H. Harris** participated in a Covid-19 clinical trial and wrote an Op-ed titled “Hal Harris: What's it like to get a coronavirus vaccination? A volunteer's story. on his experience” which appeared in the *St. Louis Post Dispatch* on Dec. 9, 2020. It also was reprinted in the *ACS Senior Chemists Newsletter*. He regularly goes into the department and he and Mary have been of great help to Joyce Corey recently. Recently **Vincent Chang** MS 1979, who did a thesis MS degree with Joyce before going on to Duke to complete his PhD degree, came to St. Louis and he and Hal took Joyce to lunch.

**Nigam P. Rath** is now retired and living on Fox Island close to Tacoma WA and 40 miles away from where his daughter Niharika is practicing medicine, specializing in Allergy & Immunology. Nigam had an enormous influence on the department when he joined in 1989. He coauthored almost 600 publications, about 225 from UMSL and 90 from Washington University chemistry department. His most common coauthors were Barton UMSL, 53 papers, Anderson UMSL 36 papers and Mirica Washington U 36 papers. Indeed he was essentially the Crystallographer for Washington University as well as UMSL through the cooperative arrangement we had on the grants from the NSF that supported the facility. When we last communicated he told me he and his wife Suchitra were unable to see their Niharika due to the COVID restrictions because she is afraid that she might have been exposed to asymptomatic patients and can infect them. Nigam has been helping Steve Holmes and others with the X-ray lab when they need him and helping with the X-ray section of manuscripts being submitted by



*Nigam Rath who retired in 2020 after 31 years on the faculty*

users. He is also trying to complete some unfinished structures. They are still trying to unpack things and put away stuff and Suchitra is still working- so she is busy 5:30am to 3pm. As for the X-ray lab, both the single crystal instruments should be working with the help of Steve Holmes and Alicia Beatty, and **Jay Battharai** PhD 2015 from the Stine lab was trying to resurrect the Powder XRD instrument.

**James P. Riehl**, who taught and did research at UMSL from 1977 through 1993 is retired and lives with his wife Ceci near Ashville, NC. He left UMSL to become Chemistry Department Chair at Michigan Tech, in Houghton MI, where he spent seven years before joining the University of Minnesota-Duluth in 2000 as Dean of Science and Engineering. He served as Dean for 14 years and was University of Minnesota McKnight Presidential Leadership chair when he retired in 2015. He plays lots of golf and is currently updating his book *Mirror-Image Asymmetry*, which was published by Wiley in 2010 and working on other writing projects

**Rudolph E. K. Winter** shown to the left with Joyce Corey, Jim Chickos and Hal Harris, taken in 2020 has been keeping a low profile during the pandemic. He and Margaret continue to live in their house in Parkview, University City and we expect to see a lot more of him once it is safe to come into the department .

### STAFF MEMBERS

We are happy to report that the staff members have not changed since 2019. We thought we were losing **Leah Trimble** Business Support Specialist for the sciences but the University was able to convince her to stay by sweetening the pot, I presume. **Jasmine Maloney** continues as Business support Assistant, **Daniel Cranford**, as Stock room Manager, but with a fancier title and our part-time glassblower is **Matthew Reinsch**..

### 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. This past year, 2020, was not a good one for fundraising for this purpose but a recent gift of \$50,000, raised the total to approximately \$75,000.

**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. The Scholarship is given to incoming Missouri resi-

undergraduate transfer students, For 2020-21 it was split between *Kristine Klein*, *Clara Beutel*, and *Katelynn Voisey*.

**The Lawrence Barton Scholarship** is designed primarily for junior chemistry majors who are first generation college students and who have financial need. For 2020-2021 scholarships were awarded to *Hunter Campbell*, *Harper Wieldt*, and *Brittany Richardson*

**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. The 2000-2021 fellowship went to *Ariona Booker*.

**The Eric G. Brunngraber Undergraduate Research Fellowship** honors the late Dr. Eric G. Brunngraber. He was the first regular biochemistry faculty member. For 2000-2021 the fellowship went to *Sinhareeb Al-Olewi*.

**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. *Brittany Richardson*, and *Hunter Campbell* shared the scholarships for 2020-2021. 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. The 2020-2021 award went to *Brittany Richardson* and *Hunter Campbell*.

**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 2020-2021 one was awarded to *Jekiya Hill*

**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 2020-2021 award went to *Michael McDonald*.

**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 2020-2021 *Diana Lund* received a scholarship.

**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 stu-

dent seminar in each semester. For fall 2019 an award was made to *Matteo Panza* and for spring 2020 to *Nyasha Makoni*.

**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. 2020-2021 awards were made to *Hunter Campbell* and *Harper Wieldt*.

**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 2020-2021 award went to *Harper Wieldt*.

**The Linda and Michael Finkes Chemistry Scholarship** is funded through the generous contributions of *Linda* BA political science 1970 and *Michael J. Finkes* BS 1973, MS 1978. The recipient for 2019-20 and 2020-21 was *Zaharak Farese*

**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 and for 2019-20 it went to *Sinhareeb Basim Al Olewi*.

**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. The first ever was awarded to *Daniel Hoard* this past year.

## STUDENT PERFORMANCE AWARDS

### Undergraduate

These awards usually include a small honorarium but this year, with the budget restraints as a consequence of the pandemic, there were no \$\$ distributed. The award for the *Outstanding Student in Introductory Chemistry* went to *Lauren Stochland* and *Malea Bradley* 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 *Kara Naes* and *Dustin Barton*. The *ACS Award for Organic Chemistry* went to *Evan Stephenson*; and the *ACS Award for Analytical Chemistry* went to *Alexander Sanderson*. The ACS Awards in *Inorganic* and *Physical Chemistry* went to *Mark Eissler* and *Mark Clark* respectively. *Aid to Education Awards* went to *Allen Clark*, *Harper Wieldt*, *Alexander Sanderson*



*Matthew Murphy* BS 2020 won the top Senior Award for 2019-20



*Harper Wieldt* who was one of the successful scholarship recipients May 2020.



**Hunter Campbell**, **Brittany Richardson** and **Michael McDonald**. The ACS-St. Louis Section's Outstanding Junior Award went to **Hunter Campbell** and **Matthew Murphy** received the Alan F. Berndt Outstanding Senior Award. The Awards for Outstanding Service went to **Jessica Doshi** and for the Outstanding Undergraduate Teaching Assistants went to **Sarah Verhulst**.

#### Graduate

The Graduate Student Research Accomplishment Award and the Ceil deGutis Award for Research Excellence went to **Scott Geringer**, the Jack L. Coombs Outstanding Graduate Teaching Assistant Award went to **Kristin Bales**, the Outstanding Masters Student Award was shared between **Michael Barnes-Flaspoler** and **Alyson Henke** and the M. Thomas Jones Memorial Fellowship for the outstanding seminar presented by a Doctoral Student went to **Matteo Panza** (fall 2019) and **Nyasha Makoni** Spring 2020)

#### THE ROBERT W. MURRAY LECTURE

The 23rd Annual Robert W. Murray Lecture was to be presented by **Dr. Omar M. Yaghi**, James and Neeltje Tretter Professor of Chemistry and Co-Director of the Kavli Energy Nanoscience's Institute at the University of California-Berkeley, on **Monday April 20, 2020**. The title of his seminar was to be "Harvesting Water from Desert Air". However, due to the Covid-19, the lecture has been postponed until further notice and we hope to hold it in fall 2021.

#### DISTINGUISHED ALUMNI LECTURE

During this unusual year when in-person activities were very limited, we actually held two alumni lectures. The 33rd Annual Distinguished Alumni Lecture was given virtually via Zoom on Oct. 12, 2020 by **Dr Elizabeth (Betsy) Keath BA 1978**, Associate Professor of Medicine, Research Development Program Director in the Institute of Clinical and Translational Science, in the Washington University School of Medicine. Her title was to be: "When You Come to a Fork in the Road, Take It (Reflections of an UMSL Chemistry Graduate). Dr. Keath obtained BA degrees in chemistry and biology, Summa Cum Laude, from UMSL. She was on the faculty at Saint Louis University (Department of Biology) and served in Ireland as a Scientific Program Officer for the Science Foundation Ireland, and consultant for the Irish Cancer Society. In the talk she described her most interesting and successful career.

The 34th Annual Distinguished Alumni Lecture was presented by **Dr. Eric A. Bruton**, BS 1997, PhD 2003. This lecture titled "*Flexibility and*

*Always Learning: A Chemist's Tale*" was also presented via zoom. Dr. Bruton studied hydrogen bonding interactions using single crystal crystallography with Lee Brammer for his PhD degree. In fact Lee Brammer, Professor of Chemistry at the University of Sheffield in the UK was on the zoom presentation. Eric's career is described in some detail on page 7. He has been an active member of the leadership of the St. Louis Section of the ACS, serving as Chair when the Section was honored with the Award for Outstanding Performance by a Medium-Large Section in 2012. Some of his earlier activities were with the Younger Chemists Committee, Career Counseling and in promoting ACS Leadership Development Courses. In 2017 Eric was elected Councilor for the St. Louis Section of the ACS to the national organization and is currently Chair of the Council Committee on Economic and Professional Affairs.

#### EDITOR'S COLUMN

This has been a very difficult year from everyone's perspective. We have not lived normal lives and there has been a sense of fear for most of us old folks. Fortunately, we can see the light at the end of the tunnel.

Universities were hit hard as income was way down and major considerations were given to tightening budgets. Within the UM System there were furloughs, faculty and staff reductions, smaller budgets and elimination or consolidation of units. When I was chair, we went through something similar in the 1980s. As in the earlier case, the department did not emerge unscathed, but the department has remained intact. Some faculty retirements were not replaced and, for a year, expenditures on the graduate program were curtailed. Overall, this was a positive outcome that Dr. Stine and his colleagues worked hard to achieve. Some additional information is given in the chair's report. The problem is that many of



**Dr Elizabeth (Betsy) Keath**  
BA 1978, the 2020 Distinguished  
Alumni Lecturer



*P. Wayne Goode, credited with founding UMSL in 1963.*

these decisions are based on student numbers, reflecting income, and the cost of the program. It doesn't seem fair because those making decisions have to dig deep to find arguments based on quality. One measure we have always excelled in is the success of our graduates. UMSL chemistry graduates have done very well indeed in their subsequent careers. But that is only half of the story. If we are able to keep in touch with you and vice versa, then the stories of your successes can be told. Thus, our activities in alumni relations are very important. But there are still some untold stories as you will see later. In addition, the department's ACS-certified program was approved for another five years. This process requires annual reports and five-yearly in-depth reports. Again, kudos to Dr. Stine who did the bulk of the work.

This year the Chemistry Alumni Council spent quite some time planning events just in case we would be able to hold in-person meetings. That did not happen, but we organized via zoom, a virtual reunion for the 50<sup>th</sup> anniversaries of the classes of 1970 and 1971. We held three consecutive events honoring the first three chemistry classes, 1967-69, at UMSL. At the latter, our attendance from the golden graduates was better than that for any other unit. The one this year was more difficult, but we had an excellent group of graduates, and they will be described in the 2022 UMSL CHEMIST which will be coming out earlier next year.

Attending from 1970 were **John R. Kolb** BS, **John Koenig** BS and **Alan Sapia** BS. From 1971 was **Dorothy Cooke** BS, **John Doisy** BA, **Frank Marre'** BA, **Harry W. Orf** BS, and **Denis W. Wester** BS Others present included: **Ray Novak** BS 1968, who has attended all four 50<sup>th</sup> Anniversary celebrations, **Joseph Bono** BS 1969 **Michael Finkes** BS 1973, and one of the organizers of the event, **Jean Vincent** BS 1992, **Joseph Meisel** PhD 2016 and **Catherine Alex** MS 2018. Also, on the call were yours truly, and faculty colleagues Keith Stine, Eike Bauer, briefly Joyce Corey, Alexei Demchenko, Lynda McDowell, Chung Wong and Deb Godwin, a good friend of the department from UMSL Advancement.

We had planned to hold an in-person event at the end of August to honor the classes of 1970 and 1971 but we decided against that, partly because the zoom event went so well. But we are more confident about later in the fall, so we hope to honor Jim Chickos, who just retired as the second longest serving UMSL faculty member. At that event we will invite all the Fifty-Year graduates and honor them if they attend.

This has been a very sad year too. We lost Dr. Jane Miller this year and that is described on page 13 above. In addition to being a great teacher and mentor Jane was a very talented person. She was an excellent cook and was known for her "Let the good times Roll" parties on Mardi Gras reflecting her New Orleans heritage. She was very cheerful to the end but disturbed that she was unable to get up and about. She is sorely missed, and I enjoyed my phone conversations with her. In fact, one the alums at the zoom event described above mentioned her. His approach to chemistry and learning was turned on when Jane recruited him to do some undergraduate TA work for her. At the time Jane oversaw the freshman laboratories and the student, John Doisy, was the one she mentored into that activity.

The other loss was that of P. Wayne Goode, a friend of mine and many others on campus. He is credited with founding UMSL in 1963 by introducing a bill to establish a campus of the University of Missouri in St. Louis. He lived in the Normandy area and I got to know him in the early 1980s when he ran for the MO Senate. Indeed, I knocked on lots of doors for his campaign which was successful in 1984. He was very helpful to me in helping restore some research funds from the state that were cancelled for a period. This was the Missouri Research Assistance Act and it provided funding to match industrial grants. Ongoing research programs for the Wes Harris group, the Barton group and others would have been interrupted in midstream. Following retirement in 2005 from the legislature he served as a member of the UM Board of Curators and died in October 2020. He is remembered for his non-partisan approach to solving important problems in the legislature. I quote from the Post-Dispatch obituary "Goode's passion for education policy gave him a reputation as the state's leading (and perhaps only) expert in the state funding formula for schools, which he helped write. His other legislative priorities included the environment, health care and consumer protections. He sponsored bills that led to the state's first hazardous waste disposal law and campaign finance reform, among others". And right at of my writing this tome, I heard that our nomination for **Rajiv M. Banavali** PhD 1984, had been successful and he will be honored at what will likely be a zoom celebration of Founders' Day on October 7. After graduation Rajiv, who did his thesis research with Robert, W. Murray, did a postdoc with Paul D. Bartlett, who had retired from Harvard in 1972 and was appointed Robert Welch Professor of Chemistry at Texas Christian University. Bartlett created a

### Chemists who received UMSL Distinguished Alumni Awards

2021 **Rajiv M. Banavali**, PhD 2004

2020 **Steven A. Kolodziej**, BS 1987, PhD 1992

2018 **Michael J. Finkes**, BS 1973, MS 1978

2017 **Gary S. Jacob**, BS 1969

2014 **Barbara W. Brown**, BA 1984, OD 1988

2014 **William R. Shiang**, BS 1983, PhD 1988

2009 **Roberta L. Farrell**, BS 1975

2004 **Sanford A. Asher**, BA 1971

2003 **Kim Gorman**, BA 1992

2002 **Douglas G. Nuelle**, MD (BS 1969)

2001 **Dawn L. Shiang**, BA 1983, Ph.D. 1987.

1994 **Harry W. Orf**, BS 1971,

1991 **Harold R. Messler**, BS 1970

1988 **Raymond F. Novak**, BS 1968



**Rajiv. M. Banavali** PhD 1984, one of the 2021 UMSL Distinguished Alumni Award recipients

school of physical-organic chemistry that sparked a revolution in the way organic chemistry is taught and practiced throughout the world. Rajiv was with Bartlett when the latter retired again in 1987 and then he joined Rohm and Haas in Houston.

He went from being an entry-level Ph.D. bench chemist to a Research Director at Rohm and Haas eventually he was promoted to Global Research Director. He moved with the company to Philadelphia in 2001 and in 2008 when Rohm and Haas was bought by Dow, he left to become Specialty Products R & D director at Honeywell, eventually running their Fluorine Products business R&D. He left there in 2018 when he was Vice President, Chief Technology Officer, Advanced Materials, and joined Huntsman in Singapore to run its Asia R & D centers. He recently returned to the US to Westrock in Atlanta where he is Senior Vice President, Science, and Innovation.

He is a very loyal alum and has helped us and other alumni out a lot in the almost 40 years since he was here. He was appointed by Dean Mark Burkholder to the College of Arts and Sciences Advisory Board, and recently reconnected when he returned to the US last year. He presented our Distinguished Alumni Lecture in 2005. This is the 14<sup>th</sup> graduate of the department to receive one of these prestigious awards. They are not easy to get, especially for chemists. Typically, businessmen or businesswomen, attorneys or politicians are selected.

We look forward to more good news in the coming years. Please keep in touch and let me know how you are doing. All the e-mail addresses of faculty are on the website: <http://www.umsl.edu/chemistry/>

### Thanks to Generous Contributors 2020-2021

Below we list the individuals, chemistry alumni and friends, and matching employers, who made contributions to the department processed since Spring 2020. We are most grateful for your support. Recent gifts will appear next year.

Anonymous Donor

Pat and Lol Barton

Paul and Carol Bostick

Edward Brunngraber and

Jackie Szmuszkovicz

Eric and Ann Brunngraber

Philip Asaro

Vincent and Sarah Chang

Edith Csiki-Fejer

Carol and Tony Daus

Maria Antoinette De La Cruz

Cristina De Meo and Alexei Demchenko

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Linda and Michael Finkes

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Jan and Michael Place

Gregory Przygoda

Vincent Rapini

Vivki and Bruce Ritts

Dawn and Bill Shiang

John Schuster

Mohammed Uppal

Angelo Vangel

Jean and Jhn Vincent

Axia Sun and Gary Weese

Bo Liu and Shuguang Wu

Hui Zhao

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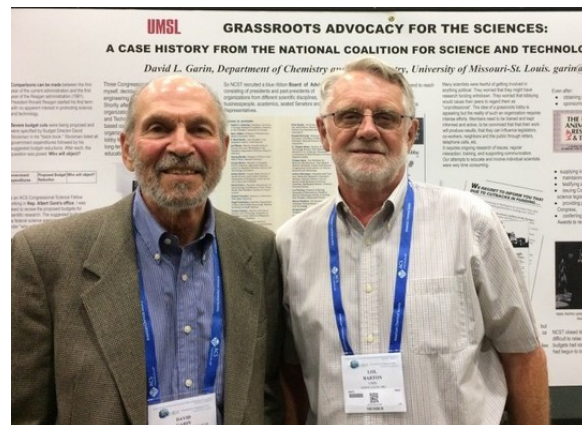
Regeneron Pharmaceuticals

### ACKNOWLEDGMENTS

Photographs were hard to obtain this past year but I wish to thank Eike Bauer, Augie Jennewein and Ji, O'Brien for help. I also acknowledge, **Patricia Barton** BA 1978, Keith Stine and David Garin for proofreading. Any errors, especially in content are mine.

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

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



The two old-timers still involved in the department, and the campus. Garin and Barton at a 2018 ACS Meeting in DC.

## 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 \_\_\_\_\_

Barbara Willis Brown Women in Chemistry Scholarship \_\_\_\_\_

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".**

I have included the University in my estate plan \_\_\_\_\_ 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

Or 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 2021

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: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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

Recent Activities and Other News:

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News of other alumni:

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**UMSL CHEMIST**

**SPRING 2021**

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