

UMSL CHEMIST



Volume 28
Fall 2010

Department of Chemistry and Biochemistry
Lawrence Barton, Editor

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Chairman's Message (Christopher D. Spilling)

I have enjoyed writing this report in the past, especially when we have had good news to report. However, it seems that recently, I have reported on the increasingly dire budget situation within the University. This year we had a 5% budget reduction from the State with no tuition increase. The projections for next year are much worse and tuition will have to be raised to cover some of the shortfall. The Department of Chemistry and Biochemistry took a large portion of the budget reduction. We were forced to reorganize our instrument facilities (NMR, Mass Spec and X-ray) and the shops (electronics machine and glass) into recharge centers with goal of paying 50% of the staff salaries from service fees! The fees are paid from the Department budget (for teaching), research grants and outside organizations. Meeting this goal is probably an unrealistic prospect. Not surprisingly, all of the attempts to find funding for the Benton/Stadler renovation project have fallen flat. However, the Department received a very generous anonymous donation which will allow us to do some renovation of the teaching labs.



Dr Spilling with the Alan F. Berndt Outstanding Senior Award Winner Mary E. Keithly at the Awards Ceremony in May

We again had some turnover in the Department staff. Angela Thomas, the administrative associate moved to Nursing and was replaced by Lindsay Zoellner from Nursing. We will miss Angela. Lindsay has been with us for about two weeks and is capable, talented replacement for Angela. Unfortunately, the budget situation forced the first lay off in the history of the Department. John Tubbesing, the electronics technician was let go: not my proudest moment as Chair. The Physics and Chemistry electronics shops were merged under the Physics Department's electronics expert Wayne Garver.

On the positive side, we have not lost any faculty members and they continue to be productive. Assistant Professors Janet Braddock-Wilking, Mike Nichols and Chung Wong were promoted to Associate Professor with tenure and Associate Professor Steve Holmes was awarded tenure. Enrollments, particularly in the sciences, are up. We had the biggest Introductory Chemistry classes than we have seen in a long time. Last year I reported that we received National Science Foundation funding for purchase of a 600 MHz NMR spectrometer. The purchase process is moving rather slowly. We received bids from the two major manufacturers and Varian was selected as the winner. Due to a grant received by Steve Holmes, we upgraded the old X-ray Diffractometer to a state-of-the-art system similar to the new one we acquired recently.

It was great to see so many of you at the retirement Reception for Lol Barton. It was arranged principally by our Chemistry Alumni Council which is doing a great job and we hope to see you at the next event they are planning during Alumni Weekend in April. You continue to be very generous to the department and this has allowed us to provide more scholarships to our students. One year ago saw many of our alums lose their jobs during the tough economic times but we are pleased to note that many of them have found new employment as the economy slowly recovers. For those of you still out of work, let us know how we can help.

We are proud of you all and your achievements and we wish you the very best for 2011.

SAVE THE DATES

Monday April 4, 2011. 14th Robert W. Murray Lecture, Professor Steven V. Ley, CBE, FRS, FMedSci., BP Professor of Chemistry at Cambridge University, UK

April 15 and 16, 2011, Alumni Weekend, featuring *Chemistry Connections and Open House* on Saturday 16, April, 3 – 5:30 pm, West wing, fourth floor, Benton Hall.

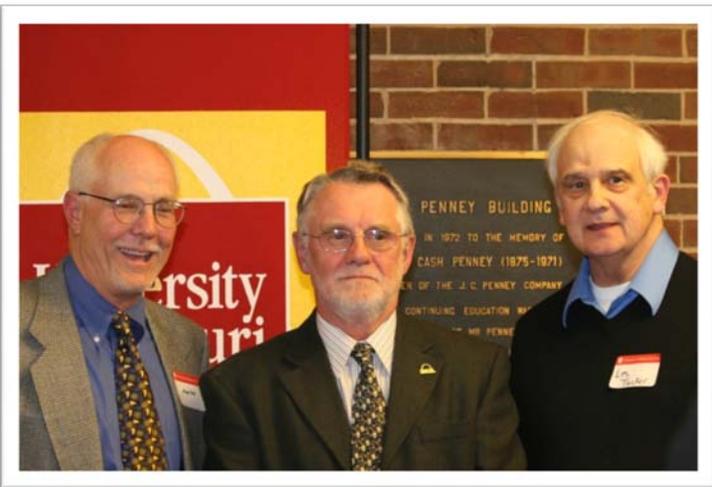
May 2, 2011. Distinguished Alumni Lecture, Dr. Elizabeth A. Amin, BA 1996, Ph.D. 2002, Assistant Professor of Medicinal Chemistry in the College of

Alumni Information

1960s

Lloyd P. Hill, BS 1967 retired from this past year from Covidien and is teaching at Lindenwood University in St. Charles

Wiley Moore BS 1968 was in touch with us recently. He tells me he chose to use the technical degree differently. He spent 10 years as a fighter pilot in the Navy and lived through that to complete a career at Continental Airlines. He retired flying Boeing 777 aircraft from Newark airport. He currently lives in Tacoma WA., and works for Boeing. He enjoys watching the launch of the model aircraft as a safety pilot for Boeing.



Graduates from the 1960s, Dr. Lloyd Hill BS 1967 and Dr. Lesley Tucker BS 1969 at the reception in March.

Steven Mestamecher BA 1969 was in touch with us recently. As he approaches the end of a very successful career with the DuPont Company, he is continuing development of his latest success – something he cannot leave until it comes to ultimate fruition within the company

1970s

Harold Messler BS 1970 retired as Manager-Criminalistics at the St. Louis Metropolitan Police Laboratories. He had been there for 40 years and served as Manager for 37 years. Harold is a widely known forensic scientist. He has impacted the field not only locally but also, due to his involvements in the American Academy of Forensic Scientists and the Midwestern Association of Forensic Scientists, across the country. He has received awards and accolades for both his expertise in forensic science as well as for helping solve some of the more heinous crimes committed in the St. Louis area. In addition, he has been an enormous resource to young people, running programs for the St. Louis Science Center and the American Chemical Society, for students and teachers in areas schools and colleges, in giving talks to community groups, and in mentoring summer intern students. He served as a faculty member for the Medicolegal Death Investigator Training Course at Saint Louis University for over 30 years and in other forensic programs at that institution. In 2008 he won the St. Louis Academy of Science "Science Educator Award".

Graduation Year

Question: Did Dr. Barton get my graduation year wrong? It would seem so!

Answer: The way I record graduation years is the same way we report data to the American Chemical Society. The year ends in June so if one graduates in say August 1995, December 1995 or June 1996, the degree is recorded as 1996. I hope that clears up some concerns some of you have expressed.

John Koenig BS 1971 retired as a Technical Supervisor at Barnes-Jewish Hospital in 2008. He spent 38 there, the last 29 as a technical supervisor in the Clinical Chemistry Laboratory. Although he supervised many areas in the chemistry laboratory, his last 15 were over toxicology, special chemistry and clinical development. This past year he began working two days a week at St Clare Medical Center in Fenton as a generalist. His work includes chemistry, coagulation, hematology and the blood bank there. He has also been active in the American Society for Clinical Laboratory Science (ASCLS), where he served as a member of the Board of Directors from 2005-2009. He is presently serving as President of the Missouri Organization for Clinical Laboratory Science, a position he has previously held twice.



Dr. John Gutweiler with Harold R. Messler BS 1970 at the Reception in March.

Michael W. Young BS 1971 was Product/Process Development Manager Acrylic Monomers and Superabsorbents, at BASF Corporation in Charlotte, NC, and died on November 4, 2009 of pancreatic cancer at the age of 60. Born in St. Louis, MO, and a graduate of Saint Louis University High School, Mike received a BS in chemistry here in 1971 and a PhD from Massachusetts Institute of Technology under the direction of Nobel Laureate Barry Sharpless in 1975. At UMSL he did undergraduate research with both Professors Barton and Winter, eventually preferring organic chemistry. He worked for BASF Corporation for 32 years holding a variety of technical and business positions including Site Manager/Operations Manager at both the Rensselaer NY and Charlotte NC sites. His BASF work involved his spending a total of 13 years in both the NY and NC locations and in addition he spent four years in New Jersey, one in Michigan and several months in Ludwigshafen, Germany with the company. He was a Board member of the North Carolina Chemistry Industry Council and the Charlotte Chamber Manufacturers Council. He was a member of the ACS for 36 years. Mike was predeceased by his son Jeffrey Michael and is survived by his wife of 33 years, Dale Callender Young, son

Mark Young, his mother Rosemary Young, brother Dr Patrick Young, sisters Mary Ann Schulte, Maribeth Nienhaus, and Mary Christine Olsen and several nieces and nephews.



Michael J. Finkes BS 1973, MS 1978 speaks at the Reception for Dr. Barton as Dr. Barbara W. Brown BA 1984 and Chris Spilling look on.

Michael J. Finkes BS 1973, MS 1978 retired after a long career with the Monsanto Company in St. Louis. Mike and his wife Linda BA political science 1970 have long been wonderful supporters of the department and the campus. Mike serves on the Alumni Association Board of Directors as a Vice President and also in a leadership position in the Chemistry Alumni Council.

John M. Crump BS 1974 was in touch with us in early February and was in town later on in that month. Unfortunately the editor was unable to see him owing to being in Florida at the time. Jack was bringing his fiancé to meet his siblings who still live in Creve Coeur, to show her the city and where he is from. He has lived in her city, Jacksonville Florida, for 25 years. He practices general surgery, raises his children, and has a fulfilling life overall. He noted that much had happened to him in the last 7 years, as he lived through a malignant brain tumor that took his wife Ginger in November 2008. His children were 12 and 14 at the time, and they all have had to adjust, and change, and grow. Jack was to be married in May 2010 in Jacksonville to a mutual friend of Ginger and Jack. He reported that they would then have 5 red headed teenagers

Paul Blystone BS 1975 treated the editor to a wonderful dinner in San Francisco in March. Paul is an entrepreneur and works in Clean Technology Business Development and Due Diligence Consulting Services. He serves as Chairman and Producer of the *Filoli Summer Jazz Concert Series* in Woodside, California. We heard from him recently when he and Kathryn had just returned from about 6 weeks in Spain...all for pleasure (although he did visit an old client). He told us he has new merger/acquisition contact jobs and was trying to sell 2 analytical contract labs, and find one for a buyer. It was fun to tour the labs and see the new equipment. So different from when he wore a white coat. He was pleased to report he had been in touch with **Andy Ratermann** BS 1976 recently.

Robert L. Farrell BS 1975 keeps in touch and last March when it was still summer in New Zealand, their garden had been

prolific, perhaps too much so for tomatoes and silver beet, and her husband Roy's Merlot grapes were lush. She had a brief visit in St. Louis with Joyce Corey in April and the last contact with us was in May when she and her British husband Roy were visiting family in the UK.

William Z. McCarthy BS 1975, PhD 1984 was married to Tara Spevack, a pediatric neuropsychologist at Children's Hospital in St. Louis, early in October 2009. They both were at the Alumni Reception held in honor of the editor in March. Bill continues at Covidien (formerly Mallinckrodt) where he has been essentially since receiving his PhD degree with Joyce Corey. He spent an unusual 6 months this year working in the plant during a work stoppage by the plant workers.

Andrew Ratermann BS 1976 in August took a new position in R & D with Praxair Surface Technologies. He works in production support, process improvement and development of coatings for high temperature and corrosive environments. He enjoys the environment at the company. At the time he contacted us he had just been on a canoe trip on Sugar Creek near Crawfordsville, IN.



Graduates from the 1970s, left to right: Dr. Andy Ratermann, BS 1976, Harold R. Messler BS 1970, Mark H. Owens BS 1977, MS 1982, Dr. Greg Wall BA 1974, MS 1981, Donna (Davis) Dietrich BA 1977, Dr. Dorothy Cooke BS 1971, Mike Finkes BS 1973, MS 1978, Bill McCarthy BS 1976, PhD 1984, Mark Leiber BS 1980, MS 1986, Rick Hoyt BS 1976, Jim Grib BS 1976, MS 1983, Carole (Steed) Green BS 1972, MS 1982, Roger Delgado BS 1981, Dr. Bob Frease BS 1976 and Bruce Ritts BS 1979, MS 1983.



Dr. Barbara W. Brown BA 1984, Bruce Ritts BS 1979, MS 1983 and David Garin.

Jeffrey B. Wheatley BS 1976 had lunch with the editor in September having previously appeared at one of the irregular meetings at Oscar's Café at which several alums and faculty get together every blue moon. Jeff is back in St. Louis after spending most of his professional career in California. Over the past 25 years he has worked on the development of HPLC technology and applications. He was most recently a Principal Scientist with Pfizer Global R & D in San Diego and previously had been with Discovery Partners International, Inc. as a Senior Research Associate in San Francisco, and with Telik, Inc, also in San Francisco, as a Senior Research Associate. In the mid-1980's and early 90's Jeff worked as an R/D Chemist with Rainin Instrument Company in Emeryville, CA. Earlier in his career he assisted in several research programs at Cornell University Medical College in New York, the VA Medical Center in San Francisco and at St. Louis University Medical School. He also worked for several years in a clerical capacity for distributors of scientific equipment and industrial chemicals. In 2006 he left Pfizer and has since traveled and worked on personal projects. Much of his professional career has involved research and development in the area of HPLC, and he generated a number of research publications in the primary literature and made many presentations at conferences on his work.



Graduates from the 1980s, left to right: Jeanette Hencken BA 1985, Joan Twillman BA 1981, Emily Smith-Heberer BS 1988, Greg Noelken BS 1982, Steve Kolodziej BA 1987, PhD 1993, Mike Merriman BS 1987, Dr. Janet Wilking BA 1985, Mike Hauser BS 1981, MS 1986, Shari Keith BA 1986, Dr. Barbara W. Brown BA 1984, Mark Vilmer BS 1983, Dorothea Bean MS 1987

Patricia J. Barton BA 1977, and also BA History, retired in 2004. She has been volunteering at the Cahokia Mounds State Historic Site in Collinsville IL. She took up golf 10 years ago and is the 2010 Ladies Senior Champion at Glen Echo Country Club.

H. Peter Kleine, BS 1978, (MS 1982) had been with Monsanto, Searle, Pharmacia, and Pfizer since graduation but was part of the big downsizing at the company early this year. However, he and his wife Joyce discussed how to take this life changing event and actually change their lives completely. They discussed moving to the SE USA. They were able to achieve this goal through his friend and former colleague **Todd R. Boehlow** BS 1991, PhD 1997 had in November 2010, when he joined Equinox in Albany GA.

Mark Pozzo BS 1978, MS 1980 Associate Research Fellow at

Pfizer Global Biologics in St. Louis and had formerly been in the succession Pharmacia/Searle/Monsanto. We learned recently that he won the Pfizer St Louis Green Chemistry for the optimization of an oligonucleotide process in collaboration with Avecia Biotechnology, 2006.

1980s

Deborah F. Bergstrom BS 1980 is Adjunct Professor of Chemistry at Frederick Community College in Frederick, MD and Principal Consultant at Bridgehead Enterprises, LLC She has been teaching introductory chemistry and was about to begin teaching organic when we heard from her.

Helen L. (Janoski) Anderson BS 1981 who also has an MBA degree from Regis University is Vice President Global Business Development at Drug Source Company in Chesterfield. Following graduation, Helen went to Monsanto and spent 25 years with the company as it morphed through Nutrasweetkelco/Pharmacia/Pfizer where she was eventually Associate Director of Biopharma Sourcing. She then moved to Perrigo as Director of Sourcing and since 2007 she has been with Drug Source Co.

C. Michael Drain BA 1982 presented a seminar in the department in December "New Concepts for the Applications of Metalloporphyrinoids". I quote an interesting piece from a short bio published with an article Mike published in the Royal Society of Chemistry journal, *Energy and Environmental Science* titled "Commercially viable porphyrinoid dyes for solar cells". It reads *Charles Michael Drain studied art at the University of Missouri at St Louis, and took a chemistry course to understand the chemistry of lithography only to find that he liked chemistry, and that the mechanism was largely unknown. He earned his PhD at Tufts University with Prof. Barry B. Cordon in 1989. His studies on the supramolecular chemistry of porphyrins began with postdoctoral work with Prof. David Mauzerall at Rockefeller University, followed by two years with Prof. Jean-Marie Lehn in Strasbourg and Prof. Dewey Holten at Washington University. He joined the faculty at Hunter College in 1996. A memorable event was the department Christmas Party in 1983 at the Drain family residence on Kingsbury Boulevard.*



Geeta Paranjape receiving the Outstanding Teaching Assistantship Award Dedicated to the Memory of Jack L. Coombs from Dr. Spilling.

Shailendra Kumar PhD 1982 was at the ACS Alumni hour in San Francisco with his family which includes wife Sangeeta and



Dr. Will Ridley who has been teaching biochemistry for us since the early 1980s retired from Monsanto earlier this year.

children Hemani (16) and Sushani (14). Shelly is the Academic Program Coordinator and Professor in the Department of Chemistry at Governor's State University in University Park, IL. He is also heavily involved in cultural affairs in the Chicago area and serves as President of the Indian Classical Music Society which partners with the City of Chicago and also the Chicago Symphony Orchestra.

Sharon Moran MS 1982 retired recently after a productive career with Monsanto in St. Louis. We were pleased to meet her at the retirement reception for Will Ridley in December.

Jerry Orlando BS 1982 is Project Manager at PBS Engineering + Environmental in Portland, Oregon.

Dennis Parazak BS 1982, PhD 1996 continues to work for Hewlett Packard in San Diego where he has been for 10 years. He was previously with HP in Corvallis OR. Last August, he changed from being an ink chemist to working with media coatings. In particular, I'm working on developing glossy coatings for paper for the webpress. This media/printing is intended for things like magazines and textbooks and is part of the wave of replacing offset printing in the marketplace with digital printing. During his career at HP, he has worked on 6 product platforms that have gone to market including desktop, large format and grand format (up to 10 feet in print width with latex inks that print on vinyl for banners, vehicle wraps and even building wraps) and now the webpress. After graduation, Dennis was with Petrolite in St. Louis before returning to do his PhD with Keith Stine in the department,

Tom E. Reinsel BS 1982, who received an MD degree from Washington University School of Medicine in 1986 had been with his company Gateway Spine LLC in St. Louis but recently relocated to the University of Missouri - Columbia where he is now Assistant Professor in the Department of Orthopedics.

Jerry Ronecker BS chemistry 1982, who also received a law degree from St. Louis University in 1990 while working fulltime at the Monsanto Company, is a now a partner with the law firm Husch Blackwell. Jerry handles toxic tort and product liability cases, environmental cost recovery and environmental insurance litigation, and complex commercial litigation matters. While at

Saint Louis University School of Law, he received the Order of the Woolsack and served as Editor of the *Saint Louis University Public Law Review*. He presented the Distinguished Alumni Lecture in the chemistry department in 2003.

Dawn L. BA 1983, PhD 1988 and **William R. Shiang** BS 1984 PhD 1989, after 6 years in Shanghai helping the efforts of Dow Chemical company establish a research presence there are now back in Midland MI with the company. Their son Wil graduated from high school this year and is at Bennington College in Vermont. He and his brother Alex certainly have grown!

Angelo Vangel BS 1983 is Quality Manager, for Lighthouse for the Blind. We had it incorrectly in the last issue. One of his hobbies is coffee roasting. He built his own roaster and gave the editor a pound and it was excellent. He described it as Peru Norte (Fair Trade); medium roast, just barely into 2nd "crack", then quenching exothermic with modified attic fan cooler.

Barbara W. Brown BA 1984 was the 2009 Distinguished Alumnae Lecturer when she gave the presentation *Unintended Outcomes*. Barb continues to be the spark that keeps the Chemistry Alumni Council going.

David Miller BA 1983 (and Biology) received his MD degree from UM-Columbia in 1989. He continues to practice family medicine in Kirkwood. After eight years of increasingly difficult solo practice, he is now happily employed as a physician with St. Anthony's Physicians' Organization. Married with two boys ages 11 and 12, all active in Boy Scouts. He recently was appointed the Chief of Staff of the Missouri Wing, US Air Force Auxiliary.



A group of new graduate students: Paul Gontarz, Mohni Ravula, Matt Keene, Jeremy Rienhour and Sanjib Karki.

Suzanne Pea BS 1984, since September 2010, has been Director Sales Compensation, Contract Analysis and Customer Accounts at Covidien, formerly Mallinckrodt Inc. She had been Senior Manager Sales & Financial Analysis at Our 365, Director of Finance-IT for Centene Corporation, Director, Budgeting and Planning with Centene Corporation, Manager, Management Solutions & Services at Deloitte & Touche and she began her business career with Mallinckrodt, Inc in 1990. She spent three years in chemistry with McDonnell-Douglas, now Boeing

following graduation, dabbled with Law School until she decided it was not for her and obtained an MBA from the Washington University - Olin Business School in 1989. Although still working in finance she does miss chemistry. She has two boys, ages 5 and 6. It is fun watching them grow and learn.

Rajiv M. Banavali PhD 1985 has settled in at Honeywell in Morristown NJ where he moved a couple of years ago from Rohm and Haas just before the latter were bought by Dow Chemical. He says he has found lots of interesting R&D activity now from Lithium batteries, photovoltaics, to fluoropolymers. His wife Marysusan is now working for AIG.



Graduates from the 1990s, left to right Darryl Hasty BS 1992, Esta Razavi BA 1993, John C. Sommer BA 2003, BS 2007, Kim Gorman BA 1993, Ricardo Delgado PhD 1999, Joe Poett BA 1987, Dr. Sean Dingman BS 1994 and Eric Bruton BS 1997, PhD 2003.

Jeannette Hencken BA 1985, who did her teaching certification here with Professor Jane Miller, continues to teach chemistry and forensic science at Webster Groves High School. In 2009 the book *Forensic Science Today*, which she co-authored with Dr. Henry C. Lee, G. Taft and K. A. Taylor, was published. Jeannette is a member of the editorial board of the magazine *The Forensic Teacher*. She is also very active in our Chemistry Alumni Council.

Shari Keith BA 1986 was at reception for Dr. Barton in March and we were recently pleased to note that she just completed the BS degree in biochemistry and biotechnology in the department earlier this year. She works in medical technology in the BJC Health System.

Ravi Laxman PhD 1987 came to the Alumni Hour in San Francisco. He is Director, New Markets, Advanced Materials ALOHA-USA S&M at Air Liquide Electronics in the bay area; a position he has held for five years.

Stephen Kolodziej BA 1988, PhD 1994 was Associate Research Fellow at Pfizer in St. Louis but was one of the casualties in the big layoff at Pfizer late last year but was rehired by them recently and is now doing peptide chemistry. Following graduation from the Winter group in 1994 he did a postdoctoral fellowship at Washington University Medical School and also Monsanto before becoming a Senior Research Investigator with Searle, then a Group Leader and Associate Fellow at Pharmacia before the Pfizer takeover. We were happy to see Steve and his wife Mary with one of their boys at the reception in March.

Gary Wester BA 1988, MS 1992 is a Quality Compliance Specialist at Pfizer in St. Louis where he has been for the past 10 years.

Emilie Smith-Heberer BS 1989, a Sr. Technical Specialist at Huntsman Polyurethanes in Auburn Hills, MI, returned to St. Louis for the Alumni Reception in March.

1990s

Kathy Carr MS 1990 is a Senior Environmental Assessment Scientist at Monsanto. We were very pleased to meet her at the retirement reception for Will Ridley in December.

Todd R. Boehlow BS 1991, PhD 1997 has been quite busy in his relatively new job as Laboratory Manager at Equinox Chemical in Albany GA. He tells us the company is looking for a few more chemists! He and his fiancée Michele Promo have set a date for their wedding, April 30th 2011. Michele has a job with JLA a global company which provides quality assurance systems in the food and beverage industry.

Dean Frey BS 1992 is Senior Manufacturing Technology Scientist at Afton Chemical, in St. Louis. He received a PhD degree in organic chemistry at Washington University in 1998 and had been with Albany Molecular Research Institute in Albany, NY.

Scott Long BS 1992 was with Pfizer until the big downsizing at the beginning of 2010, however he took a position at Monsanto as a Scientific Software Application Specialist for compliance but we heard from him that he was moving to a new position at Novus International in November as a research chemist. Scott received a PhD in organic chemistry from the University of Illinois-Champaign Urbana.



Seniors awarded Commendations for Service: Mary Keithly, Kristen Sachs, Rachel Gruber, Phil Janini and James Braun.

Matthew Mahoney BS 1993 was at Pfizer until the downsizing earlier this year and then with Jim Bashkin here in the department before joining a group of former Pfizer employees in a new biomedical venture however we just learned that he joined Novus International which located in the Missouri Research Park where the editor plays golf occasionally at the Missouri Bluffs Golf Course.

Kim Gorman BA 1993 we understand was very helpful in setting up the retirement reception for the editor last March. She is the President of Paternity Testing Corporation and also has been the laboratory supervisor for the company since it opened in 1996. She oversees all aspects of paternity and forensic testing performed by there. She is active in the Chemistry Alumni Council and was honored with a UM-St. Louis Distinguished Alumni Award in 2003.

Esta Razavi BA 1993 is Senior Clinical Program Manager-Medication Therapy Management and Pharmacist Consultation Services at Express Scripts. She obtained a degree in Pharmacy from the St. Louis College of Pharmacy and had been with Walgreens. She spent time in industry in St. Louis and did some graduate work at UCLA in biochemistry. She came to the reception for the editor and also visited the department last spring and had lunch with the editor. Very recently we learned that she had moved to Wolters Kluwer Health in St. Louis and is a Clinical Editor.



Dennis with wife Dena, and their children, daughter, Madison (12), and sons Chase (9) and Mason (3).

Dennis Kraichely BA 1994 during these difficult times entering his ninth year at Johnson & Johnson, was offered and accepted an Associate Director CMC Team Leader position (in essence, a two-level promotion since he skipped over Assistant Director). In this new position, he will work to advance large molecule projects (protein therapeutics -- monoclonal antibodies, Fc fusion proteins, etc.) through the cross-functional Chemistry, Manufacturing, and Controls (CMC) development process to product launch and post-marketing support He was heavily involved in a type-1 diabetes program which was in phase 3 clinical trials when he contacted us. It was widely announced in the press. His work will allow trips to Stockholm. One the home front we include a picture of Dennis and his family.

Michael Pasieka BS 1995 is a Scientist II at Cordis, a pharmaceutical company and subsidiary of Johnson and Johnson in the greater Philadelphia area. We believe he was earlier with the same company in Puerto Rico.

Sam Au-Yeung BA 1996 is R & D Project Manager at Barrday Inc. in Kitchener, Ontario, Canada

Elizabeth A. Amin BA 1996, PhD 2002 is Assistant Professor of Medicinal Chemistry at the University of Minnesota and



At the Barton retirement reception, Jim Grib BS 1976, MS 1982, Dr. Bob Frease BS 1996, Bob Dittrich BS 1976 and Mark Owens BS 1977 MS 1982 with Dr. Barton.

Associate Fellow of the Minnesota Supercomputing Institute will present the 24th Annual Distinguished Alumni Lecture on May 2 2011

Kevin Trankler, BS 1998, PhD 2004 is now Manager, Process Technology at Novus International in St. Charles County. He moved there from Chemir in St. Louis in 2008 as a Senior Research Chemist and has held his current position since January 2010. Interestingly, he is still visible in an online promotional video for Chemir. His wife **Amy (Thanavaro) Trankler** PhD 2004 is still at Steris Inc. reporting to **Herb Kaiser** PhD 1994. Kevin tells us that Amy has leadership responsibility in multiple projects with high visibility in the organization. Thankfully she seems to be handling the associated pressure very well. Their children are doing well. Nicholas turned 2 in September and Isabella will turn 4 this March.

Gerard Stutte BA 1998 is IT Manager & developer at Stutteport.net. He is also a systems administrator and programmer for Omnitec Corporation. He is currently a member of the St. Louis UNIX user group which meets at IT Enterprise, UMSL's small business incubator, in Berkeley, MO.

Yahia Z. Hamada PhD 1999 was at the ACS meeting in San Francisco in the spring and attended the UMSL Alumni Hour. He is a faculty member at Lemoyne-Owen College, in Memphis.

Jeffrey Scholten, BS 1997, MS 2001 had been with G. D. Searle/Monsanto, Pharmacia, and Pfizer from 1997 following graduation from UM-St. Louis through 2010. He did come full

circle and was back with Monsanto working in global formulation development but we understand he is now with the UMSL former Pfizer employees Med Chem. Initiative, currently housed here but moving to UMSL's IT enterprises as soon as the facility is ready..

Michael Washington Ph.D.1997 is a Group Leader at Covidien in the Pharmaceuticals Sector in St. Louis. He has been with the company since 1999. After graduation he joined Sigma-Aldrich for a couple of years prior to moving to Mallinckrodt – now Covidien.

Eric Bruton BS 1997, PhD 2003 has been an R&D Research Principal at Jost Chemical Co. in St. Louis since March 2010. Eric spoke at the Local ACS Section Career Day for High School students at UM-St. Louis in May. He serves as chair of the Younger Chemists Committee for the Section and recently became Chair-Elect of the Section which means he will Chair the Section in 2012.

Tammy (Gahimer) Pavelic PhD 1998 was promoted to Full Professor of Chemistry at Lindenwood University in August 2010 and she informed us that her esteemed colleague and fellow alum, **Ricardo Delgado**, PhD 2000 was promoted to Associate Professor as well.



Dr Spilling with 2010-11 Outstanding Masters Student Awardee Andria Widaman who is now in the PhD program

Bradley Reznick MS 1999 has been a Staff Scientist at ABC Laboratories in Columbia, MO since May 2010.

2000s

Matthew Lanham BA 2000 is Territory Sales Manager covering MO, KS, IN, and KY for Spectrum Chemical in St. Louis. He had previously been with Sigma-Aldrich in St. Louis as Business Analyst, Contract Implementation Manager, Inside Sales Supervisor,

Paul B. Webb PhD 2000 recently took a position with Lipospectrum, an incubator company located in St. Louis. The company is in the St. Louis Enterprise Center-Midtown on Washington Boulevard. He is involved in the analysis of lipids by mass spectrometry.

Katherine M. Block BS 2001 received her PhD degree in cellular and molecular biology from the University of Arizona. She did her work in drug discovery and development and defended in March. The job search was not so simple but she is now a Senior Development Scientist at Beckman Coulter in Brea, CA, which is about an hour outside LA. She is part of the Immunoassay and Molecular Diagnostics Division working on diagnostics for infectious disease.

Carman Bryant BS 2001 has been extremely busy since graduating and has worked with several other UMSL graduates at Sigma Aldrich and Chemir Analytical, which she enjoyed. She moved to Colorado about 3 years ago and is working for a company in Longmont - Array Biopharma as a quality control analyst. The main focus is cancer drugs, but they also have a drug that we are developing with Amgen for diabetes.

Paul E. Johnson BS 2001, MS 2004 after completion of his MS degree went to work for Pfizer in St. Louis and was there from 2004 through 2010 holding positions as Senior Associate Scientist and later Scientist with the company. Since May 2010 he has been a Senior Product Manager at Express Scripts in St. Louis. In 2009 he received a MBA degree from Washington University in Finance and Marketing.



Viktoriya (Sedelkova) Gruden BS BS 2002, MS 2005 with daughter Michelle and husband Mario Gruden BS 2003 at his MBA graduation in December 2009.

Swati (Puri) McHale PhD 2001 is a Senior Technical Support Engineer at Symyx Technologies, formerly Elsevier MDL, in the Customer Support team. She started at Accelrys in 2001, and joined MDL/Symyx in 2005. Symyx and Accelrys merged in July this year and now she is back at Accelrys! She was married last year, to David McHale, a mechanical engineer, who originally hails from Michigan. They moved to Michigan in September this year because his job was transferred from California to Michigan. Swati is still working in the Customer Support team at Accelrys from her home-office in Michigan. She works on biological applications and the Symyx Notebook (ELN). These are exciting products, which allow her to interact with a variety of customers and she enjoys it.



Graduates from the 2000s, left to right: Colin Rodger PhD 2010, Amy Trankler PhD 2004, Michael Petetit BS 2005, Henry Adiele BA 2007, Kevin Trankler BS 1997 PhD 2004, Teresa Bandrowsky BS 2008, Zepeng Wang PhD 2000, Scott Hasty BS 2008 and Mercy Kiiru BS 2009

Mark Nagy MS 2001 is with GT Life Sciences in San Diego. He was previously a Senior Scientist with Pfizer in St. Louis.

Philippa (Jayatilleke) Wolohan PhD 2001 and her husband Peter, who was a postdoc with Bill Welsh here in the late 1990s, are living in Katy, Texas. She is a full time mom to their children Chloe, Isabella, Joseph and Alexander. Peter is enjoying his job at Accelrys located onsite at Shell in Houston.

Denise (Ainley) Miller BS 2002 was married to James Miller August 2002. She joined Mallinckrodt, currently Covidien, full time in Sept 2002 in the Quality Control Laboratory doing release testing and then moved into a position in QA doing product release. For the last 4 years she has been in the regulatory affairs organization where she started making submissions to the FDA for the drug substance. She is currently a Senior Associate filing international drug product registrations mainly in Latin America, Asia Pacific and Canada.

Amie Beerman-Drury BA 2002, MS 2004, who is a Sales Representative at Jost Chemical Company, was married to John Drury last May.

Viktoriya (Sedelkova) Gruden BS 2002, MS 2005 is still with KV Pharmaceutical as a Chemist II. She likes her job but is concerned about the future of KV. Her daughter Michelle is growing quickly - already approaching 4 years old. Viktoriya is married to **Mario Gruden** (see below).

Rachel Hercules BA 2001, MS 2006 is Quality Assurance Manager at Rand Diversified in Edwardsville, IL. Prior to that she had been with ConAgra Foods. She recently became involved with the Chemistry Alumni Council.

Linyong Mao PhD 2002 was working at AATI in Ames, Iowa on algorithm development and data analysis for DNA profiling data generated by their proprietary instrument. His wife and daughter, now three years old, went back to Guangzhou

(Canton), China this November. Guangzhou is a very large city and his daughter enjoyed her stay in China very much. We recently heard that he was looking for a position in Chicago

Mario Gruden BS 2003, who joined Monsanto last year as an Inventory Manager, received an MBA degree from UM-St. Louis in December 2009. He had previously been with Sigma-Aldrich in St. Louis and is married to **Viktoriya (Sedelkova) Gruden** BS 2002, MS 2005. Picture

Dan Gu MS 2003 who received a PhD in organic chemistry at Washington University in 2008 is a postdoctoral fellow with the New York State Department of Health.

Mesfin Janka, PhD, 2003 who did his degree in Gordon Anderson's laboratory and followed that with postdoctoral research with Richard Eisenberg at the University of Rochester, continues his position as Senior Chemist at the Eastman Chemical Company in Kingsport, TN. Interestingly, his PhD advisor is now Dean of the College of Arts and Sciences at East Tennessee State University in nearby Johnson City.

Padma Nair PhD 2003 and Anil her husband and former postdoctoral fellow here with Bill Welsh are enjoying life with their children in Tucson, AR. Anil spent 2 weeks in Scotland last October and Padma enjoys her teaching job at Pima Community College and is in the process of writing up work from her postdoctoral work at the University of Arizona.

Elizabeth (Thomas) Hansen PhD 2004 has recently seen through some life changes. She had been teaching at Elmhurst College in suburban Chicago but recently obtained a tenure track position at Rock Valley College in Rockford, IL. She has been teaching there since August. She is also teaching college courses online. Other preoccupations are her new car and her cats!

James Tisdell (Banto) BS 2006 graduated from the Massachusetts College of Pharmacy and Health Sciences, with a PharmD degree in May 15 this year. He is currently in the process of getting licensed and works for Walgreens in Shreveport, Louisiana as a community Pharmacist.

Papapida Pornsuriyasak PhD 2006 expects to be returning to St. Louis to work with her mentor Alexei Demchenko in March 2011. She is now a Senior Researcher in the Innovation and Technology Department for *PTT Phenol Co. Ltd* in Bangkok.

Eunice (YoonYoung) Chung, BS 2006 is working at Covidien as a Senior Analytical Technician at the Hazelwood location and expects to enroll in the chemistry graduate program for the Spring 2010 Semester. Among her colleagues are **Josh Lang**, BS 2007, **Ryan T. Uding**, BS 2009, **Poonam Kaur**, BS 2010 and **Jawad Toor** BSBB 2011 just joined the company.

Lori (Bowen) Gwyn PhD 2005 has changed positions and is now Director, Office of Sponsored Programs at Southwestern Oklahoma State University. She had been a Chemist at Danlin Industries in Thomas, OK.

Medha Kamat, PhD 2007 was an American Heart Association Postdoctoral Fellow at Michigan State University but informed

us in September that she was moving back to the St. Louis area to take a position at Millipore, in St. Charles.

Kara Kinzel BS 2008 was a Laboratory Technologist-Chemistry at Dynalabs in St. Louis. Most recently we learned that she had move to Elantas PDG, formerly P. D. George.

Donnie Smith, MS 2007, who worked in the Spilling Laboratory when he was here, is now a Scientist at Roche Diagnostics in Indianapolis.

Hui Zhao, PhD 2007 is with EPL Bioanalytical Services as an R & D Analytical Chemist in Springfield IL. Her work is in agricultural analytical chemistry and her job functions are method development and validation for complex crop matrices, such as maize, soy seed, canola seed and plant oils. The instrumentation she uses includes LC/MS/MS, UPLC, GC, GC/MS, among others. We were delighted to see her at the reception in March.

Craig Bruton BA 2008 after a year of searching landed a position at Monsanto in the Regulatory Environmental Sciences Testing Center. It is a temporary position, unlike when he was there previously, but he has also begun studies for a MA in Education at McKendree University so he can teach chemistry in High School.

Sean Whittemore BS 2008 is in graduate school at Ohio State University working with Dr. James P. Stambuli on a CH activation project. His quite young advisor just received funding for it from the Air Force and they are optimistic for more funding. They also recently had their labs renovated, and have brand new hoods!

Nathan Birhanu BS 2009 is with the Peace Corps in Lesotho. We were in touch shortly after a Peace Corps volunteer was shot in an apparent robbery in Lesotho. In spite of this, Nathan's experience has been wonderful. Lesotho (Le-soo-too) is a small country completely encompassed within South Africa. He tells us that although the country is quite peaceful, it suffers from many hardships with the largest being HIV/AIDS, infrastructure, and education. He is a math and science teacher at a small school called Mantoetse Secondary School located in the district of Mafeteng in the village of Ha Ralitsi. His village is quite rural as it lacks electricity and running water. He also teaches life skills which is the equivalent of D.A.R.E in the United States attempting to tackle issues such as peer pressure, self-esteem, HIV/AIDS, teenage pregnancy etc. He is also involved in a number of secondary projects. Before he joined the Peace Corps, he volunteered in HIV prevention under the American Red Cross. However, the causes and effects of HIV infection in America are quite different from the ones in Lesotho. Thus, he is establishing a monthly health newsletter written in Sesotho, the local dialect, with the school to be disseminated throughout the village to fight misconceptions/myths, stigma, and ignorance relating to health and, especially, HIV.

Todd Crawford BS 2009 has been employed in the Process Control Laboratory at GKN Aerospace – North America, in Hazelwood, since January of 2002. After graduation he was promoted from Laboratory Technician to Laboratory Engineer. A typical day consists of performing a variety of tests to ensure incoming aerospace materials are compliant with customer

specifications and assisting personnel with any questions they may have regarding interpretation of internal or external processing requirements.



Jim Chickos with his former student Hui Zhao PhD 2007

Holly Scheibel BS 2009 is with Covidien in St. Louis. As are many of our recent alums, she was initially hired as a temp but was made permanent in October. She is working in the Center for Analytical Research doing analysis using FTIR, Raman, and SEM. The position is at the plant downtown, and she appreciates the group of great people and the management there.

Nongnuch Sutivisedsak PhD 2010 is a Post Doctoral-Research Chemist at US Department of Agriculture, at the National Center for Agricultural Utilization Research in Peoria, IL

Mary E. Keithly BS 2010 is doing graduate study in chemistry at Vanderbilt University in Nashville, TN in the laboratory of Richard N. Armstrong who studies structural and mechanistic enzymology. When we heard from her in mid-December she had been busy with finals and finishing off her teaching. She did undergraduate research at UM-St. Louis with Professor Dupureur and presented a post at the ACS meeting in San Francisco. Mary also attended our ACS Alumni Hour there.

Laurel K. Mydock, PhD 2010 from the Demchenko group is now a post-doctoral research associate at Washington University Medical School.

Charlatan Prasannan PhD 2010 who completed her degree in Professor Dupureur's lab is a postdoctoral researcher at Kansas University Medical Center in Kansas City.

Supratik Dutta PhD 2011 from the Dupureur group is working with Dr. Katie Henzler Wildman in the Department of Molecular Biophysics and Biochemistry at the Washington University School of Medicine. He is working in Single Molecule Fluorescence in transport protein systems.

Kenise Jefferson PhD 2011 who just completed her degree with Professor Stine is now an instructor at Southeast Missouri State University in Cape Girardeau.

Alumni Receptions

There were two receptions in 2010. The first was that honoring



Dr Spilling with M. Thomas Jones Award winners Hemali Premathilake, Mahesh Paudyal and Laurel Mydock PhD 2010

the editor's retirement. It was actually his third retirement party. The first was a family one in 2007, the second was organized by the faculty at Jim Chickos' house in January 2010 and the third was the event organized by the Chemistry Alumni Council, with help from the University and the department in March. At the latter there were about 130 people in attendance, more than half of which were alumni. Photographs of the alumni by classes are given in this document. A smaller group attended the ACS Alumni Hour for the department in San Francisco on March 23. Present were Professors Hal Harris and the editor along with former colleague Jim Riehl and his wife Ceci. Also there were alums **Dennis Wester** BS 1971, **Ravi Laxman** PhD 1987, **Shelly Kumar** PhD 1982 and his family, **Mary Keithly** BS 2011 with her mother and **Yahia Hamada** PhD 1993.

The Chemistry Alumni Council

The Chemistry Alumni Council continues to be active and last year organized and funded, we understand, the retirement reception for the editor. This was a very successful event indeed and he is most appreciative. This past year, a decision was made to bring in some younger alums and to that end, **Eric Bruton**, BS 1997, PhD 2003 **Scott J. Hasty**, BS 2008, MS 2010 and currently the President of the Chemistry Graduate Student Association, and **Rachel Hercules** BA 2001, MS 2006 joined the group.

Graduates, Dec. 2009 through Dec. 2010

DECEMBER 2009

Justyce J. Jedlicka, BS
William F. Miller III, BS
Colin S. Rodger, PhD
Deepa Viswanathan, PhD

Uzair Mamsuri, BS
Charulata B. Prasannan PhD
Faten Tamimi, BS

Melisa Austin, BSBB
Liliane Graves, BSBB
Matthew Kuehne, BSBB
Hanna Latham, BSBB
Blane Popetz, BSBB

Pranav Attri, MSBB
Mellissa Bahnak, MSBB
Sandeep Khatri, MSBB
Phaik Har Lim, MSBB
Justin Perry, MSBB

Leesa Stewart, BSBB
Michael Trammel, BSBB
Elizabeth Watson-Collins, BSBB

Milica Vogt, MSBB
Menya Wang, MSBB

MAY 2010

Teresa L. Bandrowsky, MS
Surenada Dawadi, MS
Scott J. Hasty, MS
Philip J. Janinii, BS
Teerada Kamkhachorn, MS
Mary E. Keithly, BS
Dmitry A. Lipkind, MS
Hyun W. Park, BA
Michael R. Rhodes, BS
Rashi Sharma, PhD
Andria K. Widaman, MS
Renata L. Williams, MS

James B. Carroll, MS
Rachel M. Gruber, BS
Lajuana Haynes, BA
Amanda Jennings, BA
Poonam Kaur, BS
Matthew J. Lenze, MS
Laurel K. Mydock, PhD
Lauren Patrick, BA
Kristen R. Sachs, BS
Pushkar S. Shekwalkar, MS
Trang Truong, BS

Nidhi Gadhia, BSBB
Nida Jawaid, BSBB
Jacqueline Mir, BSBB
Ashleigh Norris, MSBB
Laura Perry, MSBB
Danial Syed, BSBB

Daniel Duckworth, BSBB
Joseph Logsdon, BSBB
Annie Nguyen, MSBB
Swetha Patura, MSBB
Tien Phan, MSBB
Jawad Toor, BSBB

AUGUST 2010

Supratik Dutta, Ph.D
Lauren N. Johnson, BA
Lai-Ping Yan, BS

Kenise Jefferson, PhD
Carl R. Sansom, BA

Lauren I. Myers, BSBB
Jawad L. Toor, BSBB
Angelica M. L. Diaz, MSBB

R. Mashi, MSBB
Annie Nguyen, MSBB

DECEMBER 2010

Rebecca Martin BA
Jennifer L. Doucette MS
Adrian H. Hristov BS
Mark Voudrie MS

Stephen A. Costin, PhD
Greg A. Hogan PhD
Sophon Kaeothip PhD

Hayeon Chang MSBB
Nicholas R. Gill MSBB
Caleb Hopkins MSBB
John N. Iffrig, BSBB
Lucy M. Kastner, BSBB
Davora Kovcic, BSBB
John O. Olorunda BSBB
Aldijana Sacic, BSBB
Tanusri Samanta MSBB
Tammy G. Yasar MSBB

Mehdi Faraji MSBB
Richa Gupta MSBB
Amanda J. Hausman, BSBB
Chilufya Kaloto MSBB
Girija P. Katragadda MSBB
Jacquelyn K. Leise BSBB
Tarak B. Patel MSBB
Jennifer D. Saleh MSBB
Solaema Taleb MSBB

BB is short for Biotechnology and Biochemistry.

The Chemistry Club

2010 was another exciting year for the ACS Student Affiliate **UMSL Chemistry Club** (Faculty Advisor, Michael Nichols). The Chemistry Club continued its involvement in many activities including a Professional Skills seminar, mixers with the Physics Club, and student interactive demos on the Science Complex

patio. National Chemistry Week 2010 included a research fair organized by the club where Chemistry Dept Professors spoke about their research programs and potential undergraduate research opportunities in their labs. The program was well attended and enjoyed by all. The Chemistry Club received an Honorable Mention Award from the ACS for its 2009-2010 activities as a Student Affiliate Chapter. Officers for 2010-11 are David Putnam (President), Eldijana Pilopovic (Vice-President), Nicholas Ahlemeyer (Treasurer), Amanda Jennings (Secretary), Stephanie Guentz (SGA Rep), and Christina Nguyen (Public Relations/Historian). 2009-10 were James Braun (President), **Mary Keithly** (Vice-President), **Kristen Sachs** (Treasurer), **Rachel Gruber** (Secretary), **Philip Janini** (SGA Rep), and David Putnam (Public Relations/Historian) all of whom graduated with BS degrees in May.



Esta Razavi BA 1994, Keith Stine and Joe Kolf BS 2009.

The Faculty

Eike B. Bauer's first graduate student, **Steve Costin**, graduated recently. There are five other doctoral students in his group which usually includes several undergraduates. This past summer he had one UM-St. Louis student, an undergraduate from Westminster College in Fulton, MO and a *Students and Teachers as Research Scholars* student from Wentzville Holt High School. He also participated in an international collaboration when Ms. Sabine Grupe, a PhD student at the University of Cologne received a stipend from the German Academic Exchange Service (DAAD) to spend the summer in his lab. During 2010 he and his students made several presentations at conferences and he gave seminars at five universities including Texas A and M where his PhD mentor and the newly appointed editor of the journal *Organometallics*, was his host.

Alicia M. Beatty graduated her first Ph.D. student, Greg Hogan, who will walk Dec. 18th. She attended the first Gordon Conference on Crystal Engineering this summer and also became a member of the Editorial Advisory Board for the ACS journal *Crystal Growth and Design* and for a couple of years she has been a member of the International Advisory board of the RSC journal *CrysEngComm*. One of her papers, with post-doc Onome Ugono and Nigam Rath, was published in *CrystEngComm* as a "hot topic" paper, and they will have the cover of the journal next year for that paper. She continues to

have active high school and undergraduate students in the lab - publishing papers with high school (Marcel Douglas, Jr.) and undergraduate (Stephanie Cowin) researchers. Undergraduate student Stephanie Cowin also presented her research at the UMSL Undergraduate Research symposium, and gave a talk at the Midwest Undergraduate Research Conference at the University of Memphis.

James S. Chickos this past summer went to Europe with Linda for a holiday which included meeting with his son Aaron who just completed study at the London School of Economics. He also visited Paris and York. Then in November his daughter Sarah was married in Old Alexandria, VA to Tom Wright at a wonderful event which included Scottish highland dancing, bagpipes, step dancing and Greek dancing. Drs Barton and Garin were also there to enjoy the festivities. The Chickos research group, which consists of three students, continues to progress and among several recent publications, an article with his collaborator Bill Acree of the University of North Texas, over 100 pages long will appear soon in the *Journal of Chemical and Engineering Data*. Jim hosted an informal retirement party for the editor attended by faculty, former staff colleagues and the Barton family in January.

Valerian T. D'Souza told the editor that his guru from his village in India told "Valerian, the verb teach has two subjects, one is the subject you teach and the other, the students you teach. If you do not love them both, you have no business being a teacher". He now says he is beginning to understand what that means. He loves his teaching of chemistry and his students and has carried a significant load recently. For Fall 2010 he taught, General Chemistry for the Health Professions, Organic Chemistry for the Health Professions and Chemistry 1111 (Chem. 11) with eight lab sections. In the spring 2011 semester, he replaced the chem. 1111 with three sections of Organic Lab I.

Alexei Demchenko continues his very productive research program in synthetic carbohydrate chemistry and during 2009-2010 his research group published 19 articles, presented 13 posters at conferences, and delivered 16 invited talks at universities and in symposia. He serves as the Director of Graduate Studies in the department, is a Member-at-Large of the Executive Committee of the Division of Carbohydrate Chemistry of the ACS and a member the Editorial Advisory Board of *Carbohydrate Research* (Elsevier). In addition, he was the Chair of the Faculty Senate Committee on Research 2009-2010 (Spring Panel). In 2009-2010, his research program was supported by grants from NSF, the NIH and the American Heart Association. Currently his research group (Glycoworld) consists of three post-doctoral fellows including **Archana Parameswar** (UMSL Ph.D., 2008) and six graduate students, and during 2009-10, ten undergraduate researchers and two visiting students from Europe spent time in his laboratory. Next semester he will be on sabbatical leave in the Department of Food, Pharmaceutical and Pharmacological Chemistry, at the University of Piemonte Orientale in Novara, Northern Italy, which is close to Milan.

Cynthia Dupureur with the activation of an NIH grant, the Dupureur research group is gearing up a new collaborative project with Jim Bashkin and his company *Nanovir*. It applies many skills gained in working with endonucleases to studying polyamide-DNA interactions. Her speaking highlight this year was a trip to Bremen, Germany to speak at the 6th New England

Biolabs meeting in August. College German came in handy. For its annual summer "Hooky Day," the Dupureur Group biked on the Katy Trail in St. Charles and played miniature golf, a new game for some members. Dr. Dupureur continues as chair of the graduate recruiting and admissions committee and asks that you encourage promising students to apply to our MS or PhD programs.

George W. Gokel tells us that pyrogallolarenes are compounds that are being studied because they form molecular capsules, supramolecular networks, and show remarkable activity in bilayer membranes. Separate research involving them is underway at both the Columbia and St. Louis campuses. In order to share insights and potentially to develop collaborations, a meeting was held at a restaurant in Wentzville during the summer. The research groups of Jerry Atwood (MU), George Gokel, Steve Holmes, and Jimmy Liu (All of UMSL), about 20 people in all, had a long lunch and scientific discussion. A more formal mini-symposium was held on Saturday, September 11 in Columbia. The faculty named above and Professors Carol Deakynne and John Adams (MU) and twenty coworkers attended the all-day meeting. Dr. Megan Daschbach, graduate students Saeedeh Negin, Yuanzhu Zhang, and undergraduate Jason Atkins presented their recent research results. Jason Atkins talked about his recently accepted paper on synergy between synthetic ion channels and antibiotics. The participants posed for a photo that was taken by Dr. Gokel. After the meeting, the faculty discussed strategies for coordinating grant proposals in areas of overlapping interest.

Harold H. Harris managed by electronic means to keep up with his courses this fall while he and Mary did a "Science History Tour" of Italy for two weeks. Besides the usual sites including the Coliseum, the Vatican and the leaning tower of Pisa, they had a special tour of the Gran Sasso underground neutrino laboratory, the home in which Galileo was held under house arrest, the Galileo museum, the Universities of Rome, Bologna, and Padua, and the Volta Temple in Como. In November, Hal presented a Science Café at the St. Louis Zoo under the auspices of the St. Louis Academy of Sciences, which had earlier made him Science Educator of the Year 2010. "Irrational Science" brought out a crowd of 170 on a Wednesday evening! Hal was very pleased to receive the Gene Fuchs Memorial Award for 2010 from the St. Louis Association of Physics Teachers this December. It honors a former outstanding high school physics teacher (Vianney High School) and is given annually to a person who has made distinguished contributions to the teaching of physics in the St. Louis region.

Wesley R. Harris' most recent doctoral student graduate **Rashmi Sharma** graduated in May, and is currently a post-doc in a clinical research lab at Purdue University. Her husband is also doing postdoctoral work at Purdue (not in chemistry). The collaboration that he and Chris Spilling have with the University of Kentucky is going well. Their phase II Small Business Technology Transfer (STTR) Program proposal was funded and work started in June. As I type this Wes and Marion are looking forward to a visit to Hawaii over the Christmas break to visit their son Jonathan, who is living on Kauai.

Stephen Holmes was involved in the ACS PROJECT SEED (Summer Experiences for the Economically Disadvantaged) program for a second year. Last year an article on this appeared

in the *St. Louis Beacon* and this year another appears in the *St. Louis Post-Dispatch* and may be found on the website under Breaking News. He was also busy on the research front. He was awarded funds by the NSF to upgrade the older of the two single-crystal X-ray diffractometers. He was an invited speaker at a French Laboratory (Centre Recherche Paul Pascal, Bordeaux) and international conferences in Florida (Third Workshop on Current Trends in Molecular and Nanoscale Magnetism), Hawaii (Pacifichem), and China (International Conference on Molecular Magnetism). Partial support of his travel was awarded (\$1,000) via the university Small Grants Competition. A recent publication and associated cover artwork was selected as an "Editor's Choice" manuscript and appears in *Angewandte Chemie International Edition*. The work was also featured in the *CNRS International Magazine*. He was awarded early tenure by the university earlier this year. On the personal side, he is delighted that his wife Keeta recently started as Assistant Program Director and Instructional Designer in the Center for Teaching and Learning at UMSL, and so has moved to St. Louis. Previously she had been working in Danville KY as the Director of the Center for Teaching and Learning at Centre College. She had decided to keep her good job there until a suitable position became available in St. Louis region.



Dr Spilling presents a 2010-11 Lawrence Barton Scholarship to Allison Saettele.

Jingyue (Jimmy) Liu continues as the Director of the Center for Nanoscience. In January he presented the invited paper: "Scanning Transmission Electron Microscopy of Metal-Support Interactions in Nanocatalysts" at the 1st International Symposium on Advanced Electron Microscopy for Catalysis and Energy Storage Materials in Berlin – Germany. He also taught the course *Advance scanning electron microscopy* in the spring, cross-listed in both chemistry and physics

Rensheng Luo has been spending his time maintaining the NMR facility, training and assisting NMR users, trouble-shooting, doing collaborative research and teaching informal courses. He co-authored two papers in 2010. In the summer, he travelled to *Agilent Technologies* (former Varian Inc) at Walnut Creek and *Bruker BioSpin Corporation* at Billerica to look at new NMR instrumental demonstration as the department considered which 600 MHz instrument to purchase. He attended a protein structure determination workshop in Madison WI and also took a vacation trip in China. For the NMR lab, the best functional software Topspin TM 2.1 was recently upgraded on the Advance Bruker spectrometer. A new Varian 600MHz NMR spectrometer will be installed next to current NMR room in the coming months.

Eventually the Agilent (Varian) instrument was selected. Rensheng is going to collect most data on this spectrometer for local academic and industrial researchers.

Michael R. Nichols was promoted to Associate Professor and granted tenure this past year. He continues to investigate Alzheimer's Disease-related research and is also involved in collaborations with Alexei Demchenko, James Bashkin, and Cindy Dupureur. The last year in the Nichols lab saw a publication in Archives of Biochemistry and Biophysics detailing the use of tryptophan-substituted amyloid- β protein (A β) to investigate the A β self-assembly process; and a submitted manuscript from a collaborative effort between the Nichols and Demchenko groups that identified a potent inhibitor of lipopolysaccharide-induced cellular inflammation. He now has three PhD students in his research group and three undergraduates worked in his lab this past year. Conferences attended by Mike and the lab members included the American Society for Neurochemistry (Santa Fe, NM) and the Society for Neuroscience (San Diego, CA).

James J. O'Brien will have a guest in his laboratory in the winter 2011 semester when Leah O'Brien of SIE-Edwardsville will spend a sabbatical leave with him. Their daughter Christine just graduated from UM-Columbia and their younger daughter Emily is a freshman in Columbia this year. Jim is finally moving office to the one formerly occupied by Dave Larsen on the north side of the fourth floor of Benton Hall. Jim is the Midwest Award chair for the St. Louis Section of the ACS and also is involved in running Career Day on campus in late spring.

Nigam P. Rath presented an invited lecture in a workshop titled "Plug 'N Analyze" in Jan 2010: "Crystallography Experiments for undergraduate organic laboratory and the use of bench top diffractometers" at the MD Anderson Cancer Center, Houston, TX. With his help we have now introduced x-ray crystallography experiments in the senior level undergraduate inorganic chemistry lab. His daughter Nila is now in her third year of the UMKC 6-year integrated program in medicine.

Christopher D. Spilling's research group has now grown to 9 members comprising 7 Ph.D. students (including **Ben Martin** BS 2007, **Mercy Kiiru** BS 2009 and **Jeremy Ridenour** BA 2008), an undergraduate and research associate professor Bruce Hamper (see below). The group has been very productive. Chris and Kathy visited Poland in July for the International Conference on Phosphorus Chemistry (ICPC). While Chris attended the conference and presented a lecture, Kathy got to enjoy the sites of Wroclaw. The family is doing well and the boys are growing up quickly. Andrew (19) is attending Embry-Riddle Aeronautical University. He recently switched his major from aeronautical engineering to homeland security with an emphasis in cyber security. He is attending university on a Navy scholarship which requires him to participate in Navy ROTC, spend a month with the Navy each summer and commission upon graduation. Robert (17), senior at DeSmet HS, has opted for delayed enlistment in the army. After graduation he will go to Oklahoma for basic training and individual training as a fire support specialist (artillery). William (12) is the 7th grade at St. Ann School in Normandy. Clearly, the boys do not share their father's love of chemistry (yet!).

Keith Stine completed a year in which a number of new people

joined his research laboratory including a postdoctoral associate and three graduate students. In addition throughout the year a number of undergraduates have worked in the lab. **Kenise Jefferson** completed her PhD in summer 2010 and is now teaching at Southeast Missouri State University. His research in collaboration with Alexei Demchenko on using nanoporous gold as a support for carbohydrate synthesis and also for other applications continues with NIH support. During the year, Keith has spent time on ACS activities including being Program Chair for the 2011 Midwest/Great Lakes Regional meeting, serving as advisor to the ACS Younger Chemists Committee, and coordinating Project SEED. He has also pursued fundraising efforts and a particular frustration this past year has been difficulty in raising funds from local sources for Project SEED which provides a summer research experience for talented but economically disadvantaged students.

Janet Braddock-Wilking was busy this year in her role as Organizer/host of the 43rd Silicon Symposium held at the Hyatt Regency Hotel in downtown St. Louis in May 2010. The attendance at the meeting was on the order of about 110 people and attendees came from around the world – Israel, Germany, England, Japan, China, Mexico, Canada, Austria, and USA. The winner of the 2010 ACS Frederic Stanley Kipping Award, Professor Yitzhak Apeloig from the Technion-Israel Institute of Technology was honored at the symposium and gave the 1st plenary lecture. The three graduate students working with her all presented posters on their work at this meeting. Perhaps the biggest news of the year for her was the award of tenure and promoted to Associate Professor!

Chung F. Wong has two new graduate students this year. Sneha Bairy is doing an MS with thesis in the Biochemistry and Biotechnology program and Paul Gontarz is a PhD student. This summer, two Jeff Metcalf Fellows – George Gulotta and Kimiko Post – from the University of Chicago visited Chung's laboratory. Two high-school students – Taylor Bell and Amit Nanda – also worked in the laboratory as part of the Students and Teachers as Research Scientists program. Chung continues to advise students in our master degree program, which now consists of about two dozen students. He was awarded tenure and promoted to Associate Professor this year.

Zhi Xu continues his research into the development of ultrasensitive spectrophotometry technology. The University of Missouri signed a license agreement with The Incubation Factory (TIF) for patent rights to a set of Ultrasensitive Spectrophotometry technologies designed to increase the sensitivity of optical spectrophotometers by 100 fold. TIF recently established a start-up company to commercialize the technologies, beginning with the FTIR field, and will sublicense rights to them.

Emeritus, Retired and Former Faculty Members

Gordon K. Anderson tells us that things are going well at East Tennessee State University. They got a \$2M NSF grant to renovate research labs in biology, chemistry and physics – he was the PI. The university has managed to balance its budget despite a 36% cut in state funding over the past couple of years. No raises for the past 4 years though. Daughter Jill was married in June and is now teaching French and Spanish at a high school

in Bristol, VA. She and Shawn live in Lebanon, VA, a small town about an hour from them.

Charles W. Armbruster continues to enjoy retirement in Orlando FL. Pat and Lol Barton stayed with him for a couple of days in November. He is doing well and enjoys playing and winning master points in bridge. He welcomes former students to get in touch with him at Armbruster@umsl.edu.

Lawrence Barton continues his role in the department as Alumni Coordinator and an undergraduate adviser. He also helps with the web page, graduate brochure, student scholarships and organizing events including the Alumni Lecture and the Robert W. Murray Lecture. He also recently took over from Hal Harris as the Advanced Credit Program Liaison for Chemistry. He spends Wednesday mornings and Friday afternoons on the golf course and the rest of the time in the department except when he and Pat are travelling. Last academic year they spent six weeks in Fort Myers FL and expect to do the same this year. They also take time to visit family in Britani as well as visiting daughter Hilary in Stillwater OK. Travel to two national ACS meetings and a very short trip to the Dominican Republic were also among the travel activity in 2010. The highlights of the year were the wonderful retirement parties held for him: one on Jan 15 at Jim Chickos' house when faculty and family members were in attendance and the second on March 13. The latter was organized by the Chemistry Alumni Council and was a wonderful event with about 130 people present.



Dr Rath explains the x-ray diffractometer to a group of high school students at Career Day.

Eric Block was at the ACS meeting in San Francisco in the spring promoting his book *Garlic and Other Alliums: The Lore and the Science*, published by the Royal Society of Chemistry (2010). The editor was fortunate to be given a complimentary copy of this excellent book by the author who was here from 1967-1981 and is now Carla Rizzo Delray Distinguished Professor of Chemistry at SUNY-Albany.

Joyce Y. Corey as we would all expect, manages to keep very busy and is in the department most of the time. She had submitted a long review article, the culmination of about 12 years worth of effort, to *Chemical Reviews* in Nov. 09. It was accepted in February of 2010 with a few minor corrections. Proofreading the 211 pages of galleys was a major problem since the material was "mangled", to use Joyce's term, by the editorial staff. She has been told it will not be published until February of 2011. She spent much of the first five months of this year completing a small project started many years ago. She had to

relearn the rhythm of working on a Schlenk line. She had been invited to contribute to an issue of *Organometallics* dedicated to its original editor Dietmar Seyferth - the lab work was in order to be able to submit something for the special issue. She eventually presented the work at the 43rd Organosilicon Symposium in St. Louis and was faced with her first ever PowerPoint presentation. She is still working on writing projects, she reviews at least two papers and/or proposals each month and she recently served as one of the members of the PhD defense committee for one of the graduate students (at his request!). She still finds chemistry as fascinating now as it was 50-plus years ago.

David L. Garin was one of seven people working on a Waterways project last summer in New York sponsored by the Danish Arts Council and ILAND, Inc. He just learned that the project was listed as one of the forty best public arts projects of 2009 in the Public Art Network Year in Review. Garin was reelected to a two year term as president of the Board of the UM-St. Louis Retirees Association.

Marcel I. Halberstadt and his wife Lucille are reasonably well so he tells us. They are both busy, Lucille with her editing work for the Optical Society of America, and Marcel with his retirees program in Michigan as well as consulting for the Association of International Automobile Manufacturers. His Foundation recently was granted a new contract by the State of Michigan to assist small businesses in the state in energy conservation efforts, and they just recruited 15 new assessors (retirees) into the program. They seem to be one of the few businesses in Michigan doing any hiring.

Jane A. Miller has been quite ill but she is now on the road to recovery. She had some medication interactions which really upset her system and she was in the ICU for 24 hours and in rehab for 10 days and was not doing well. Some former students and Joyce Corey had been in touch with her and recently I contacted her and she is much better now. She no longer drives but does get out on occasion and is thankful to have her son Bill living with her.

Robert W. Murray and his wife Claire are occasionally in touch with the editor. Bob doesn't travel far these days but they do manage to go out for a late lunch (lunner Bob calls it) every day so they have become very friendly with the servers at the restaurants they frequent. Thus they are forgoing a family wedding in Kansas City in December. Bob remembers everyone and recently heard from Heather Moncrieff, a Scottish undergraduate who worked in his lab in the early 1990s and also stayed with them at their house. She is now working in Belfast. We were saddened to hear that Bob's former postdoc who did the seminal experiments on dimethyldioxirane R. (RJ) Jeyarman died recently of pancreatic cancer.

James P. Riehl was here in April to play golf with the editor and visit the Math Department. His book *Mirror-Image Asymmetry. An Introduction to the Origin and Consequences of Chirality*, by James P. Riehl, New York: John Wiley & Sons, Inc., and it was well-received and reviewed in some of the more prestigious journals. It was also nominated for a *Proseaward*. Jim is Dean, Swenson College of Science and Engineering, Professor of Chemistry and McKnight Presidential Leadership Chair at the University of Minnesota-Duluth.

John A. Schreifels was in touch with us recently. John has been chair of the department of chemistry at George Mason University in Fairfax, VA. John has been there since 1988 and during his earlier years was responsible for the rebirth of the UMSL CHEMIST which he wrote for a couple of years before the current editor took it over. He and his wife Diane are empty-nesters but heard recently that daughter Karen may be moving back home.

Rudolph E. K. Winter continues to collaborate with colleagues in the department and elsewhere typically but not always using mass spectrometry. He also has served on dissertation committees in both chemistry and biology and enjoys impressing his colleagues in biology with his knowledge about natural history. He continues to publish with his collaborators and a particularly interesting item relates to the following question he posed me. He said: "Did you know that Japanese beetles are temporarily paralyzed after consuming just a few petals of common geranium flowers?" This phenomenon was first reported in 1920 but little investigated since. Its phytochemical basis has now been established. For details see Christopher M. Ranger, Rudolph E. K. Winter, Ajay P. Singh, Michael E. Reding, Jonathan M. Frantz, James C. Locke and Charles R. Krause in a recent issue of the *Proceedings of the National Academy of Science* for a recent study conducted at the Application Technology Research Unit of the USDA in Wooster

Adjunct Faculty members

James K. Bashkin continues his studies on seeking treatments for the human papillomavirus, or HPV, the cause of most cervical cancer and he has a research group in Benton Hall which includes **Kevin Koeller** PhD 1994 and until recently **Matt Mahoney** BS 1994. Jim and his colleague Chris Fisher in Kalamzoo are the owners of NanoVir LLC and the principal investigators of these studies which have recently been funded by two major grants from the NIH, one for \$3million and the other for \$1.87million. The latter work includes co-investigators Professors Cindy Dupureur and Mike Nichols. Dr. Bashkin has been interviewed by NPR and the Higher Education Channel on the work and the grants and reports have appeared in the St. Louis Business journal and the St. Louis Post-Dispatch. His former student **Girija Katragadda** MSBB 2011 was hired by Monsanto.

Sean Dingman BS 1994 who received a PhD from Washington University is with SAFC-Hitech, a unit of Sigma-Aldrich in St. Louis as a Market Segment Manager. Sean is active in the Chemistry Alumni Council wherein he has been leading the development of an e-mail based networking system for alumni. Sean is also teaching Instrumental Analysis and Physical Chemistry in the department in the evening.

John L. Gutweiler is still a fixture in the department as he has been since 1972! He teaches quant, introductory chemistry and is also substantially involved at Logan college of Chiropractic where he teaches biochemistry.

Bruce C. Hamper joined us in the winter 2010 semester. We had known him as a chemistry colleague at Monsanto/Pharmacia/Pfizer for many years. He retired from Pfizer in 2009 as Research Fellow and Team Leader. He is also

teaching at Meramec Community College, consulting for Monsanto and working in the Spilling laboratory. He received his undergraduate degree from Kalamazoo College and his PhD degree from the University of Illinois-Urbana

Anthony Mannino has been teaching for us for about 12 years now. A chemist at Covidien in St. Louis, he has taught our largest evening classes in recent years, the organic chemistry sequence and next fall he will teach a graduate course in medicinal chemistry. He will also teach the organic sequence this coming summer since **Ricardo Delgado** PhD 2000, now Associate Professor of Chemistry at Lindenwood University who has been doing that for the past several years, is unable to do it.

William P. Ridley retired this month from Monsanto after 32 years with the company and Drs Spilling and Barton were delighted to be invited to the reception held for him. He has been teaching biochemistry for us since the early 1980s and also has done so for the School of Optometry.

A. Greg Wall BS 1974, MS 1981 is owner of Owner, BioChemSultants LLC in St. Louis. Greg has been teaching introductory and biochemistry for us now for several years. He retired from Sigma-Aldrich in 2007.

Staff Member Changes

We were sorry to see the departure of **Angela Thomas** Administrative Associate who was offered a promotion to Administrative Manager to move to the College of Nursing. She had been with us for almost seven years and seems to have settled in well in her new position. We were also sorry to see the departure of **John Tubbesing** Senior Electronics Technician who left as a consequence of the major budgets cuts currently being experienced by the campus.

Daniel L. Cranford Coordinator, Laboratory Operations joined the department in April 12 and his duties include running the storeroom and the undergraduate labs. The position is essentially a hybrid of those held by **Donna Kramer** who took a disability retirement last year and **Brian Huesgen** who was coordinator of the laboratories and left to take an appointment at Carboline in St. Louis. Dan grew up in Alton, IL and attended SIU-Edwardsville where he obtained BS and MS degrees in chemistry, the latter in the laboratory of Professor Mike Shaw. As a graduate student he was a GTA for 3 years, ranging from general chemistry to senior level advanced inorganic labs. His research involved working with ruthenium-porphyrin complexes. Previous work included mentoring for the Children's Home and Aid Society of Illinois, for 2 years working specifically with troubled adopted young males ages 8-16. Dan is an avid sports fan (favorite teams being STL Blues/Chicago Bulls/GB Packers/STL Rams), and a video game nerd. He is also an outdoorsman and enjoys camping.

Lindsay A. Zoellner Administrative Associate joined the department in late Nov. 2010 replacing Angela Thomas. She began working for the University in the College of Nursing in 2008. She graduated from UMSL with a BS in Criminal Justice & Criminology in 2005 and is currently pursuing a master's degree in counseling and she hopes to work with at-risk youth in the future.



Randa and Mike Schneider

Former Staff Members

Donna Kramer is undergoing physical therapy and also taking courses online towards a MA in theology. We receive regular updates from Joe Kramer about her and also about their daughter Jessica who is doing well and enjoying 5th grade and her activities in the Girl Scouts and K-Kids organizations.

Randa Schneider is in touch with us and she continues to battle cancer. She is in good spirits and keeps up an active presence on FaceBook. ..She is still undergoing chemotherapy every two weeks for the time being and is hoping to have surgery to remove the tumor in few months. If you want to keep in touch with her, please do so via: randa@adams.net. Mike is working at the Social Security office in Quincy as a medical consultant as well as doing some private practice work in the evenings.

The Robert W. Murray Lectureship

This departmental function continues to be the major event of the visiting speaker program. The 13th Annual Lecture was given on March 8 by **Dr. Daniel G. Nocera**, the Henry Dreyfus Professor of Energy and Chemistry at the Massachusetts Institute of Technology who spoke on *Energy for One ($\times 10^9$)*. This next year **Dr. Steven V. Ley**, BP Professor of Chemistry at Cambridge University will lecture on April 4, 2011

Scholarships and Fellowships

The Lawrence Barton Scholarship: This Scholarship is designed primarily for junior chemistry majors who are first generation college students and who have some financial need. Contributions to the endowment have been very good and this allowed the provision of \$3,000 scholarships to **Sarah L. Hensel** and **Allison L. Saettele** for 2010-11.

The M. Thomas Jones Memorial Fund: This memorial fund is the only endowment that recognizes performance by graduate students. It was initially funded through contributions from family, friends and colleagues of Dr. Jones and recently his widow Patricia Jones and family has made substantial contributions to allow us initially to endow it and to improve it. Currently it is used to fund an annual award for the top graduate

student seminar in each semester. The graduate students vote on this award and in 2009-2010 awards went to **Hemali Premathilake**, **Mahesh Paudyal** and **Laurel K. Mydock**. In the future we expect to extend the awards by scholarships to outstanding incoming graduate students.

The Barbara W. Brown Fellowship for Women in Chemistry: This Fellowship is designated for women students over the age of 24 and **Barbara (Willis) Brown** (BA 1984) established it. The 2010-2011 fellowship went to **Elizabeth Ayo Vaughan**. Again, this is the only fund that is dedicated to the support of women students and you can designate your contribution to this fund if you wish.

The Eric G. Brunngraber Undergraduate Research Fellowship: This Fellowship, which has existed since the late 1980s but was endowed more recently by the family of the late Dr. Eric G. Brunngraber, and we are delighted that they continue to add to it. The award is for undergraduate research. If you are interested in supporting this important aspect of the department's activities, you may designate your contributions to this fund. For 2010-11 the fellowship went to **Nicholas Ahlmeyer**.

The William and Erma Cooke Memorial Scholarship: This, the major endowed award in the Department, was one of the first such endowments on the campus. It is designed primarily for sophomores. It was endowed by Dr. Dorothy C. Cooke, in honor of her parents William and Erma Cooke, in 1989. Dorothy received her BS degree in chemistry in 1971 and is now a physician. She was always most appreciative of the support she got from the department and especially when she did research with Dave Garin. The Scholarship has provided support for two students annually now since 1992. In 2010-2011 fellowships went to **David Putnam** and **Patrick Skornia**.

The Linda and Michael Finkes Chemistry Scholarship is new this year and was endowed through the generous contribution of **Linda** BA political science 1970 and **Michael J. Finkes** BS 1973, MS 1978. The recipient for 2010-11 is **Jason Kennedy**.

Other Departmental Student Awards

Undergraduate

The award for the **Outstanding Student in Introductory Chemistry** went to **Son Vo** 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 **Kristy Daigle** and the **American Chemical Society Award for Analytical Chemistry** went to **Mary E. Keithly** who received a certificate and a one-year subscription to *Analytical Chemistry*. The **American Chemical Society-St. Louis Section's Outstanding Junior Award** went to **David Putman**. The award was presented at the annual Awards Night during the ACS St. Louis Section's Chemical Progress Week. **Mary E. Keithly** received the **Alan F. Berndt Outstanding Senior Award** and the **American Institute of Chemists-Student Award Certificate**. The 2010-11 Undergraduate **Chemistry Aid to Education Awards** were

given to **Nicholas Ahlmeyer, Adrian Hristov, David Putnam, John Schallom and Patrick Skornia**. Finally **Certificates of Commendation for Outstanding Service** went to the Chemistry Club officers **James Braun, Rachel M. Gruber, Philip Janini, Mary M. Keithly, David Putnam and Kristen Sachs**.



Dr. Rensheng Luo describing NMR to a group of high school students on Career Day.

Graduate

The 2008-09 **Graduate Student Research Award** again went to **Sophon Kaeothip** and the 2009-10 **Graduate Teaching Assistant Award in Memory of Jack Coombs** was awarded to **Geeta Paranjape**. **Todd McDonald** and **Andria Wideman** were honored as the **Outstanding MS student**. **Teresa Bandrowsky, Supratik Dutta, Lasurel Mydock, Sneha Ranade and Sudeshna Roy** were winners in the **Graduate School Fair Research Poster Competition** and a **2010 Graduate School Dissertation Fellowship** was awarded to **Sophon Kaeothip** and a Graduate School Award for Research Excellence to **Stephen Costin**.

Distinguished Alumni Lecture

The 22nd *Annual Distinguished Alumni Lecture* was presented by **Dr. Barbara W. Brown** BA 1984. O.D., FAAO, is Manager, Student and Special Services for the UM-St. Louis College of Optometry and is a partner at Overland Optical Family Eyecare. She is a 1988 alumna of the College and a received a BA degree in chemistry in 1984 from UM-St. Louis. She completed a graduate certificate from UMSL in 2005. She joined the Optometry Staff in November, 1999 after leaving a full-time optometric practice. She has ten years experience in fundraising with extensive work in Planned Giving and Capital Campaigns. During the past three years she has been a leader of the UM-St. Louis Chemistry Alumni Council. She spoke on the topic *Unintended Outcomes*. This most interesting lecture described Barb's life and career. The lecture for 2010 will be given by **Elizabeth A. Amin**, BA 1996, PhD 2002 Assistant Professor of Medicinal Chemistry at the University of Minnesota.

Editor's Column (Lawrence Barton)

Although I am continuing my version of the history of the department, this time covering 1980 – 1985, again I begin with a few general comments. Of course, I cannot continue writing anything without again expressing my sincere gratitude and

heart-felt best wishes to the 90 or so alumni and the 40 or so others who attended the reception in March nor to the others who could not be there but sent messages and finally to those who contributed to the Lawrence Barton Scholarship. It has done well, and as we mention elsewhere, we were able to provide two \$3,000 scholarships for the 2010-11 academic years to deserving students. I will continue to be the contact person for alumni and also the editor of the UMSL CHEMIST for many more years and appreciate that the chair Chris Spilling has provided me with a continuing position here. I work hard at trying to maintain contact with and information about you all. This has become somewhat easier with the development of professional and social networking tools but I encourage you to continue to keep in touch. Our LinkedIn site has done quite well as we approach 150 members. I encourage you to consider joining.

Departmental History, from 1980 - 1985

The next period in the department's story began for me in 1980 when I took over from Bob Murray as department chair. This was the beginning of a new era. Previously the founder of the department, Charlie Armbruster, and then our most senior colleague, Bob Murray, had chaired the department. I was an associate professor and that in itself provided some challenges. I also took over at a challenging time, with the resignations of 2 colleagues: Ken Barnett had left the previous year and we had failed to fill the position, and Bob Penn was due to leave at the end of that academic year.

My first day as chair was Monday May 12 when I served for the summer prior to my regular appointment on August 15. Gene and Joyce Corey hosted a party at their home for Bob and Melinda Penn who were leaving the following day for Wilmington DE, where he had taken a position with DuPont. It was an excellent party and Pat and I went home at about 11:00 pm, to be woken at 12:30 am by a call from the campus police. A refrigerator had stopped working and noxious fumes were coming from Eric Block's lab - the organosulfur compounds were warming up and diffusing into the building. We could not locate Eric so I had to come in and empty the contents into the cold room. A rough introduction to my new position!

Eric was one of the stars in the department but 1980 was a really hot summer and I believe his wife Judy told him she had endured St. Louis summers enough. Thus he sought a position in the east and during the 1980-81 academic year, he informed me he was leaving to join the faculty at SUNY-Albany. That was a real blow to the department and to me because Eric was a very supportive colleague in addition to being an excellent teacher and researcher. He took one of our graduate students with him: A. Greg Wall BA 1974 MS 1982, who received his PhD degree with Eric in Albany. Karl Seper BS 1981, an undergraduate, also followed him there but eventually obtained a PhD degree working with John Welch. Eric's last doctoral student here **Ali A. N. Bazzi** obtained his PhD degree in 1981 and was the first of our doctoral graduates to be hired by industry in St. Louis. At about the same time **Barbara Soltz** PhD 1978 went to McDonnell-Douglas but I believe a little after Ali joined Mallinckrodt.

This was a very difficult time in the department and university. With the loss of Barnett and Penn, our faculty size had dropped

to 15 and the university had instituted a hiring freeze due to a budget shortfall in state appropriations. I was able to argue that, with our expanding doctoral and masters program and large undergraduate classes, we could not do without our typical number of faculty members which had been 17 since 1970. We were allowed to recruit and were fortunate to attract Gordon Anderson who was a postdoc with Howard Clark at the University of Guelph and John Schreifels who was a postdoc with John White at the University of Texas. They joined us in 1981 but we were still down to 16 with the loss of Eric Block. Again we were able to prevail on the administration, arguing that Block was a key department member who should be replaced. Thus we were able to add Mike Sworin, a postdoc with Larry Overman at California-Irvine, to the faculty in 1982. Mike was a synthetic organic chemist and was ideally suited to replace Block.

Then, in December 1983, Alan F. Berndt was taken ill with what was first diagnosed as blood clots in his leg. After two or three weeks it became clear that his problem was much more serious and he was diagnosed with pancreatic cancer. After a valiant fight Al died on May 30 1984. In his honor we renamed the Outstanding Senior Award after him; the first award was made to **Lisa McChesney** BA 1985. Al had been the only faculty member who was a member of the American Institute of Chemists and he administered the AIC Outstanding Senior Award in the department. Al, who joined the department from Argonne National Labs in 1965, graduated from Cooper Union and Caltech. He was a physical chemist whose research interests were in X-ray diffraction. We were allowed to search for a replacement and late in 1985 we persuaded William J. Welsh, a postdoctoral fellow with Jim Mark at Cincinnati and Professor of Chemistry at the College of Mount St. Joseph in Cincinnati, OH. Bill had a fellowship at NIH so he would not join us until the fall 1986.

Another major loss in December 1984 was the passing of Jack Coombs. Although he had several health issues including heart problems, he too died of pancreatic cancer. He was with the department from 1965 through 1977 and served as storeroom manager, overseeing two moves of the facility, one from the old country club house to the third floor of the Benton Hall east wing and then to the second floor, exactly below the second one. **Ken Owens** BS 1980 had been appointed storeroom manager in 1978 replacing **Pat Barton** BA 1977 and Ken resigned in July 1981 to take an appointment at McDonnell-Douglas. Ken was replaced by **Jim Wheatley** BS 1989 who served in the position from July 1981 through August 1988. At the beginning of the 1980s the office staff consisted of Betty Eshbaugh, of course, Deitra (Livingstone) Lott and Cheryl (Warden) Neiner Cheryl left in the summer of 1981 and after a couple of missteps we hired Randa Schneider who would stay with us for almost 19 years. In 1980 Betty Eshbaugh, the office manager, was honored for 15 years of service and Bob Cabaniss, our glassblower for 10 years of service although I think they achieved these milestone in 1979!

The lustrum 1980-1985 produced turbulent times at UMSL, which had just established two professional programs, Nursing and Optometry. This put additional stress on the budget since adequate funding was not provided to set up the new programs properly. Governor Bond withheld 10% from the University budget and President Olson proposed a Compensation

Improvement Program that required substantial reallocation on the campuses in order to provide salary increases for faculty and staff. Faculty members at UMSL were outraged and called for the resignation of Chancellor Arnold Grobman. "Shoot the messenger" was the order of the day, resulting in a lukewarm vote of confidence. However budget cutting continued. As a consequence we reduced the hours of Bob Cabaniss to 80% and made an arrangement for him to work for Washington University for one day per week. Then the System implemented a study called the Duplicated Program Review Process in which each degree program offered all four campuses would be reviewed with a view to removing undue duplication. Chemistry was one such program and a panel consisting of Bill Phillips of Washington University and Richard Schowen visited the four campuses and wrote a report on what they observed. The final recommendations were very favorable to UMSL but they were not really followed, nor were some recommendations concerning the Schools of Education and Library Science on the Columbia Campus.

In the department, however, things were going better. The dean's planning committee ranked the 18 departments in order of merit and chemistry came out on top. There were other positives too. In addition to the faculty replacements, Monsanto (through the efforts of Joe Feder) made a contribution to the department of more than \$20K to fund an HPLC system. This was the first such gift to a public institution made by the company and it was followed up by several interactions with William Symes, President of the Monsanto Fund. As chair I was encouraged to nominate Bob Murray to fill the vacant slot as Curators' Professor following the retirement of Norton Long, a political scientist. Bob was thus appointed Curators' Professor. The new deans, Shirley Martin of Nursing and Jerry Christiansen of Optometry, were very willing to collaborate and thus general and organic courses for nursing and biochemistry courses for optometry were developed. During that same academic year, 1980-81, Charlie Armbruster won the Amoco Good Teaching Award. Previously Gene Corey in 1976 and Joyce Corey in 1977 had been so honored.

The push for a new science building, begun in the 70s, continued. Tom Jones was Associate Dean of the College of Arts and Sciences, chairman of the campus space committee and a key person in this quest. We were also trying to acquire an X-ray diffractometer in collaboration with Washington University to complement the 100 MHz NMR spectrometer we shared with them but housed at Washington University. Bill Phillips was chemistry chair at Washington U and he had a very good relationship with this editor. We were unsuccessful in attracting NSF funds in joint proposals with Washington U but our administration, with the help of Tom Jones and Bill Phillips, were able to provide funds to augment those in our special equipment account and we purchased a Nicolet P-3 Diffractometer, locating it in Benton Hall. It was administered by Eugene Corey from UMSL and George Stanley from WU. Ironically the first publication to acknowledge use of the instrument was authored by A. F. Berndt, L. Barton and **F. Longcor** BS 1969, PhD 1984 in *Acta Crystallographica*.

The other major goal for those who used chemical instrumentation was improved NMR facilities. We shared a JEOL FX-100 with WU but it was not really satisfactory and some of the faculty, including the editor and his student, had to

rely on traveling to Columbia to run spectra. The only instrument available on campus was the Varian T-60 which we had purchased in the early 1970s and some second-hand ones we obtained from Monsanto. We submitted several proposals to the NSF for new NMR instrumentation but were only successful in having a proposal funded to refurbish the T-60. When this was shipped to Varian in December 1980 we made arrangements to have spectra run at Monsanto and Rudi Winter's graduate student **Anis Qureshi Ashraf** PhD 1982 ran spectra there. Higher resolution research spectra were run at WU by **Gerard Sullivan** BS 1983. Later **Bill Van Arsdale** BA 1979, PhD 1985, **Sue Jansen** BS 1982 PhD 1986 and **John G. Boylan** PhD 1988 would run spectra at WU. The big break came in 1984, when a proposal spearheaded by Gordon Anderson was funded for \$140K by the NSF, which allowed us to purchase a Varian XL-300 spectrometer using the grant and matching funds from the campus. This was a major milestone in the development of the department. The instrument was shipped in December 1985. It was a very cold day and sitting in my office I heard a loud report. I thought that the movers had dropped the magnet. Unfortunately, an explosion had occurred in the Winter Lab and **Chitase Lee** MS 1988 was hurt, seriously but fortunately with no permanent injuries.

I had been elected Chair-Elect of the St. Louis Section of the ACS for 1979 so I became Section chair in 1980. Prior to that the only colleague to hold that position had been Tom Jones in 1978. 1979 and 1980 were two very successful years for the Section and we won the Award for Outstanding Performance by a Large Section in both years. We also hosted the St. Louis Award Symposium on campus honoring Jordan J. Bloomfield from Monsanto. He was an adjunct professor in the department and left Monsanto in 1985. Jack Walker of McDonnell Douglas with whom we had been running chromatography courses in the extension division left St. Louis, so began a long-standing relationship with Dr. Marvin McMaster, who continued those courses in collaboration with the ACS.

Please join the UMSL Chemistry Alumni Group.

This is an excellent way to network with other alumni and to make contacts with former classmates. It will be valuable for professional activities too. If you are already on LinkedIn, our group URL is <http://www.linkedin.com/e/gis/865237>. If you are not a member of LinkedIn, you will be asked to join. To join our group please send a message to one of the group managers, Sean Dingman (1994) at Dingmans@umsl.edu, Barbara Brown (1984) at BrownBW@umsl.edu or me at lbarton@umsl.edu

Our students continued to be prominent on the campus. **Mark Knollman** BA 1982 was student government association president in 1979-80 and **Barbara (Willis) Brown** BA 1984 held the position in 1983-84. Prior to that the last chemistry major to hold that appointment was **Bob Lamberg** BS 1972 in 1971-72. In the early 1980s we established the Chemistry Advisory Council composed of prominent industrial chemists and supportive alumni from industry. Among the latter were **Dennis W. Wester** BS 1971 from Mallinckrodt, **Dale Vineyard** BA 1978 from Seven-up, **James J. Grib** BS 1976, MS 1982 from Anheuser-Busch, **Greg Przygoda** BA 1973 from

McDonnell-Douglas, **Ross Larson** BS 1971 from Missouri Analytical Laboratories, **A. Greg Wall** BA 1974, MS 1981, **Chuck Thierheimer** BS 1980, MS 1982 from Petrolite, **Michael Finkes** BS 1973, MS 1978 from Monsanto, **Phyllis Bennett** MS 1979 from Ralston Purina, **Mark Owens** BS 1976, MS 1982 from Envirodyne Engineers and **Ken Henderson** BS 1973 from Ethyl Corporation.

Several faculty members took advantage of sabbatical or research leaves and we also took advantage of the Visiting International Scholar Program. Eric Block hosted Antonino (Nino) Fava from Bologna Italy in 1981, Rudi Winter in 1982 hosted Hachior Oku from Okoyama Japan, Jim Riehl hosted Steve Mason from Kings College London in 1983, Bob Murray hosted Karl Griesbaum from Karlsruhe Germany in 1984 and Jim Riehl hosted Harry Dekkers from Leiden, the Netherlands in 1985. Similarly, colleagues visited other research laboratories. David L. Garin followed up his sabbatical leave at the EPA in Washington DC with an American Chemical Society Public Affairs Congressional Science Fellowship, in 1980. Joyce Corey spent the first half of 1981 at the University of Wisconsin and the first half of 1982 at the University of Science and Technology of Languedoc in Montpellier France. She received a NSF Visiting Professorship for Women in 1984 - at the University of Wisconsin-Madison in the winter and at the University of Utah in the fall. Eugene Corey also spent winter 1982 in Montpellier and in the fall was at Wayne State U. Jim Chickos spent the academic year 1985-86 at the University of Reading in the UK, Jim Riehl spent 1983-84 at King's College, London, Bob Murray was Visiting Professor of Chemistry at the Engler-Bunte Institute at the University of Karlsruhe, W. Germany, January - April 1982 and Tom Jones, Associate Dean of the College of Arts and Sciences, took off the Spring 1985 semester and stayed in St. Louis doing full-time research.

Continued opposition to UMSL's expansion and research mission was evident to Tom Jones as he worked with administrators in the Central Administration in Columbia on the building project. The state had sponsored a \$600m bond issue which the voters passed. E. Terrence Jones, a political scientist and director of the Master's in Public Policy Administration degree program, and others at UMSL were strong proponents and generated support from colleagues on campus and in the community. The funded program was to include a new research building at UMSL, the number one capital project on the campus since 1971! The University System commissioned three separate and quite expensive studies in order to convince themselves and the Board of Curators that a building devoted only to research was not needed, but Tom Jones and others were in the end successful in persuading the System administration in Columbia. Sverdrup and Parcel were the architects chosen and planning in earnest began. Then, during his first year as Governor, John Ashcroft vetoed \$4 million of the building budget, thus precluding the inclusion of a Science Library that was part of the original budget and reducing the budget from \$23m to \$19m. An op-ed piece appeared in the Post-Dispatch deploring this and other actions by the governor, written by this editor and Phil James, the Physics Department chair. At the same time a review of programs in the UM System was in progress to establish program priorities. The outcome of some very laborious work was that chemistry was asked to compete for designation as a Center of Eminence. This work was completed in the summer of 1985 and

indeed was successful. We were named and provided with a modest budget that allowed substantial improvement in the departmental infrastructure during the next lustrum.

Between 1980 and 1985 graduate enrollment flourished. There were 37 MS students and 13 PhD students in 1981 and 33 and 23 respectively in 1985. The growth in the graduate programs, especially in the part-time masters program, was reflected in the number of total graduates. By 1981 there had been 10 PhD graduates and 16 MS graduates, but in five years those numbers would grow to 19 and 43 respectively. Undergraduate enrollment in chemistry was not as high as it was in the mid to late 1970s but we averaged 23 BA/BS graduates during the first five years of the 1980s. In 1980 the chemistry minor was established. A major development was the awarding of funds from Monsanto in 1983 to support the "Monsanto Postdoctoral Fellowship". This supported postdocs in the laboratories of Drs Anderson 1984 -6, Riehl 1986-88, Winter 1988 - 90, Barton 1990-91, Brammer 1991-92, Spilling 1992 - 93, Stine 1993 - 94 and Xu 1995-96. Awards won during this period included Dave Garin, the EPA Bronze Medal in 1980 and a Certificate of Recognition from Missouri Department of Natural Resources for work on the Hazardous Waste Management Commission, 1981. Tom Jones won the ACS St. Louis Section Award in 1983 and Joyce Corey won it in 1985.

The faculty voted to begin to move to have Eric Brunngraber as a regular faculty member here in 1985. He was a staff member at the Missouri Institute of Psychiatry in St. Louis and formally a member of the Biochemistry Department at UM-Columbia; however he was only really involved in his research at MIP and with our department. The ACS meeting was held in St. Louis in 1984 and **Phyllis Bennett** MS 1979 was the publications chair and Editor of the Chemical Bond and wrote a special issue for the meeting. It included an article on the History of Chemistry in St. Louis by Jane Miller. Also involved were **Harold Messler** BS 1971 who served as Tour Coordinator, J. Michael Dye BS 1977 who was a staff member of the Chemical Bond, Tom Jones who arranged plant trips and Claire Murray who staffed the Hospitality Center.



Dr. Barton with Dr. Barbara W. Brown BA 2004, the 2010 Distinguished Alumni Lecturer.

Notable activities included the visit by President Jimmy Carter in the fall of 1980 and the installation of a National Public Radio Receiver on campus for KWMU. The station began to move from an all classical music format to new and public affairs talk shows. At the urging of Assistant to the Chancellor Betty Van

Uum, the first chemistry faculty phonathon was held at which faculty members called alumni and encouraged them to make contributions. The faculty members were not happy, but most were pleased with the warm receptions and the generosity of most alums. Another disturbance towards the end of this 5-year period resulted from a report by the Missouri CBHE suggesting that graduate and professional programs on the campus be discontinued and that UMSL merge with Harris Stowe State College. The former, obviously, concerned us most. Public hearings were held and I was able to marshal strong support from the St. Louis Research Council, a group of senior research managers of chemical and related companies in St. Louis and chemistry department chairs and graduate deans from the St. Louis area universities. I was president of the group from 1983-85 and most members wrote very strong letters denouncing the idea. Especially useful were the letters from the chairs of the chemistry departments at Saint Louis U, Washington U and SIU-Edwardsville. Finally, for two years Chancellor Grobman had been confronting the Central Administration in Columbia and the state government in Jefferson City by demanding major expansion of the campus and its programs. He resigned in the spring of 1985 and whether he was forced out is up to future historians to decide.

We came out of this period very strong but the best was to come with a new building on the horizon, and the designation as a Center of Eminence, which would lead to expansion and enhancement of the program. Details of that activity will have to wait until next year!

My memory is not perfect and I took advantage of the excellent source, *The Emerging University: The University of Missouri-St. Louis, 1963-1983*, by Blanche M. Touhill, published by the University of Missouri, 1985, for some of the material herein. The volume was given to all those who attended the May 1985 Chancellor's Report to the community when Chancellor Grobman announced his retirement.

Contributors 2010

Below we list the individuals, chemistry alumni and friends who made contributions to the department this past year. It lists all contributions including those from the special appeal for the Armbruster Scholarship fund. The list and the amount we raised, especially during these difficult times, are both very impressive and we are most grateful for your support. During the year, for all items including the specially endowed funds we were able to raise almost \$30K. The list includes both general contributions and also those to specific funds including the Brunngraber Scholarship, the Armbruster Scholarship Fund, the Lawrence Barton Scholarship, the Barbara W. Brown Scholarship for Women in Chemistry, the M. Thomas Jones Memorial Fund, the Robert W. Murray Lectureship and the Department Endowment Fund. Note we are now trying to endow the award in honor of Jack Coombs so if you wish, this is an option for you contribution. If we missed out your name, we apologize and hope you understand that we are fallible. Recent gifts will be listed next year.

Abbott Laboratories Fund
Joseph and Brenda S. Ackerman
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Dennis W. and Vicki L. Wester
Bruce A. and Janet B. Wilking
Renata I. Williams
Fuqian Xei
Hongping Ye
Henghu Zhu

Acknowledgments.

I wish to thank to **Patricia J. Barton**, BA 1978 for proofreading and to **Drs. Eike Bauer, Jim O'Brien** and the university photographer for taking many of the photographs, to others for providing photographs, and to **Vally D'Souza** for help with the formatting. I normally thank the Graphics and Printing and Services Office but they lost their jobs during the budget crisis and we wish them well!



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Lawrence Barton, Professor Emeritus
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INFORMATION UPDATE WINTER 2011

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

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