

UMSL CHEMIST



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Department of Chemistry and Biochemistry
Lawrence Barton, Editor

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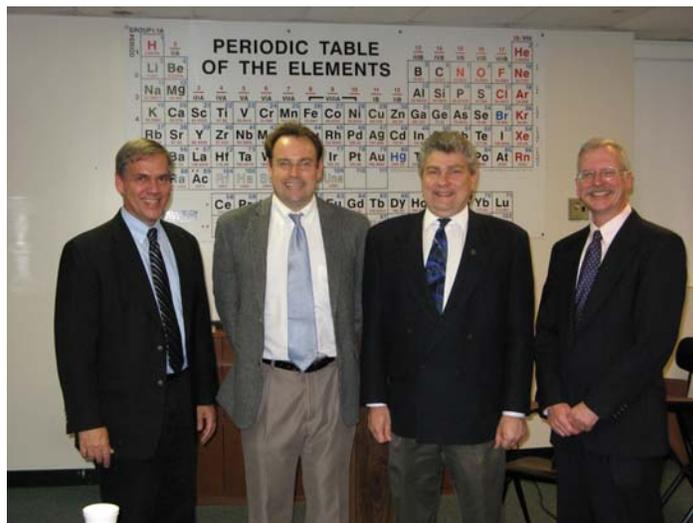
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Chairman's Message (Christopher D. Spilling)

I am in the middle of my sixth year as Department Chair and this has been the toughest year yet. Indeed, this has been a tough year for many of us: faculty, students, friends and alumni. The State of Missouri provided the University with a flat budget for 2009-2010. As part of the arrangement, tuition was also held flat. While this is better than the fiscal situation facing many universities across the country, the effects of inflation meant the University had to find close to \$3 million in cuts. The projections for the next two fiscal years are extremely bleak. We were also saddened to learn that several friends and alumni were facing layoffs. Many of us are trying to help where possible, but the job market is also in bad shape.

One of the casualties of the poor economy was the new science lab building and the renovation of Benton/Stadler. The planning had progressed well and the University was about to award a contract to a design-build team when the funding was cut. The project is still the top system priority and we are all hopeful that the funding will be restored when the economy improves. However, this is the third time that we have been through the planning process only to see the funding evaporate at the last minute.

Fortunately, the news is not all bad. Enrollments at UMSL increased in the fall semester 2009 and it appears that the numbers for winter semester are also good. Enrollments in chemistry courses have been bolstered largely due to the very successful Biochemistry-Biotechnology program. The BS and MS degree programs have now been in existence for 6 years and 51 Bachelors and 26 Masters degrees have been awarded. Furthermore, the chemistry Ph.D. program has its highest enrollment in several years. This is mainly due to the grant success of the faculty, allowing us to accommodate more students on research assistantships. In general, we do not promote the research successes of the faculty in this publication. The focus is on you, our alumni and friends. However, the web site is up to date and I urge you to take a look at the wonderful work being carried out by our faculty. I would like to mention one major success since it involved the effort of several



Speakers at the St. Louis Award Symposium, David Wiemer, U. of Iowa, Paul Hanson U of Kansas and Bill Donaldson, Marquette U.

individuals over multiple years. A team of faculty in chemistry and biology, led by me as PI, was recently awarded a grant from the NSF to purchase a 600 MHz NMR spectrometer. The addition of this instrument will make our NMR facility (like the X-ray facility) one of the best in the state.

This has been an excellent year for faculty and alumni recognition. **Roberta Farrell**, BS 1975, was given a Distinguished Alumni Award by the University. Keith Stine won the Chancellor's Award for Excellence in Service. The Academy of Science-St. Louis named Hal Harris winner of the 2010 Science Educator Award, Keith Stine won the ACS St. Louis Section Distinguished Service Award, Wes Harris and I were UM System Entrepreneurs of the Year, and I received the St. Louis Award from the St. Louis Section of the American Chemical Society.

SAVE THE DATES

March 8, 2010. 14th Robert W. Murray Lecture, Dr. Daniel G. Nocera, Professor of Chemistry and Energy, MIT.

March 13, 2010. Alumni Reception honoring Lol Barton on the occasion of his retirement.

March 23, 2010. ACS Alumni Hour, National Meeting, San Francisco.

April 16 and 17, 2010, Alumni Weekend.

May 3, 2010. Distinguished Alumni Lecture, Barbara W. Brown, BA 1984.

We have selected spring 2010 to recognize Lol Barton. As many of you know, Lol has been on the faculty here for almost 44 years and was Department Chair for 18 years. Lol officially retired in 2007, but has maintained an active role in the Department. Although this latter will continue, many of us felt that now was the appropriate time to celebrate Lol's outstanding contribution to the Department and University. The faculty has planned a small gathering. However, the Chemistry Alumni Council is planning the main event. The alumni reception in honor of Lol will be held on March 13, 2010. Further details will be forthcoming and I encourage you all to attend. As an example of Lol's contribution over the years, the UMSL CHEMIST (all 26 editions), which Lol writes and edits, is available on the UMSL-Chemistry web site and may be found at <http://www.umsl.edu/chemistry/UMSLCHEMIST/index.html>.



Pat Barton, BA 1977, Chris Spilling and his wife Kathy enjoyed one of Chris' jokes at the ACS St. Louis Award Banquet

Alumni Information

1960s

Don Kaesser BS 1967 has retired from ownership (not from full time practice or from life!) of *Central Iowa Psychological Service*, but he sold his psychology practices at both the Des Moines and Ames locations and now works for the guy he 'raised' for the past 10 years to buy the practice. Now he sees 8-10 clients three days a week and then 6 more on each of the other 2 workdays/week - and he loves it! He and his wife Pat remain healthy and they are at that stage in life where they are able to take all or most all of each January and spend it at their interval time share on Sanibel Island in Florida. Don enjoyed the event for Charlie Armbruster and also receiving the UMSL CHEMIST.

Steven Mestamecher BA 1969 was in touch with us recently. A few years ago he invented a new product line, Pipelon®, a unique family of DuPont engineering polymer resins and world class technology designed to serve the demanding field of polymeric pipe solutions for the oil and gas industry. It has been doing well and this is why he has delayed retirement. He and his wife Joyce have developed new hobbies, square and ballroom dancing, in anticipation of retirement.



Chris Spilling with some current and former graduate students: l to r. Nongnuch Sutivisedsak, Ben Martin, Bingli Yan, Raj Malla, Amy (Thanavaro) Trankler, Todd Boehlow, Surendra Dawardi, Brad Rowe and Sudeshna Roy.

1970s

Dennis W. Wester BS 1971 still maintains a home in Richland, WA where his wife Vicki and son Adam are living as he works in Vancouver but we understand that he and Vicki are planning on purchasing a condo in Vancouver. Adam is working at Battelle in Richland, WA, Vicki is still teaching in Richland and Dennis is Director of Applied Research at MDS Nordion in Vancouver. He was at the ACS meeting in Washington DC, in August and after that he and **Harry Orf** (BS 1971) visited **Mike Young** (BS 1971) in Charlotte, North Carolina.

Kenneth O. Henderson BS 1973 was Vice President of Technology at Canon Instrument Co., State College, PA., for 11 years until his retirement in January 2009. Before that, he worked as rheology group leader at Ethyl Petroleum Additives (now Afton Chemical), Richmond, VA., and managed engine test programs at Castrol North America, Wayne, NJ. His professional career has focused on the physical properties and performance of engine lubricants, particularly flow properties at low temperatures. In March 2009 Ken received the Sydney D. Andrews Scroll of Achievement from ASTM International for his outstanding work in the field of petroleum products and lubricants and his many contributions to committees. He has received several previous awards. He is also a member of the Society of Automotive Engineers. On retiring, he started a consulting firm named McEinri Associates, specializing in petroleum product property measurement. He also plays golf and has been remodeling his house in Port Matilda, PA, where he lives with his wife MaryAnn.

Michael R. Young BS 1971 came into the department to see Drs Barton and Winter in mid-June. He had been in town for a wedding. As perhaps you recall, Mike was diagnosed with pancreatic cancer in early July 2008 and had been undergoing treatment ever since. He responded to treatment very well and looked well when he was here. Unfortunately he took a turn for the worse in October after a well-deserved vacation with his wife Dale in Hilton Head, SC. He had put up a very brave struggle



Founders' Day Dinner, from left Rick Hoyt, awardee Roberta Farrell (both BS 1975) Hal Harris, Joyce Corey, Wes Harris, Pat Barton (BA 1977), Chris Spilling, Lol Barton, Dave Garin, her brother Dr. John Farrell and sitting is Phyllis Robb and Roberta's sister Mary Jane Lane.

and he passed away on November 4.

Carol Green Steed BS 1972, MS 1982 was seen by the editor at the Gilbert and Sullivan concert of *Pirates of Penzance* at the Touhill Performing Arts Center. She is now a chemistry instructor at St. Charles Community College.

Michael Finkes BS 1973, MS 1978 is a Quality Assurance Specialist with Monsanto Regulatory Quality Assurance. Mike is now a Vice President of the Alumni Association and a leader in the Chemistry Alumni Council.

William Goldkamp BA 1974 is Operations Manager with ABNA Engineering in St. Louis. After he graduated in chemistry, he bounced around a little bit and eventually went back to school to UM-Columbia for a Civil Engineering Degree. Since then he's been doing engineering. He lives in Defiance and has three children. His dentist is classmate **Roger Walkenhorst** who was a student in chemistry here with him.



Steve Villasenor BS 1975

Robert L. Farrell BS 1975 was honored by receipt of **UM-St. Louis Distinguished Alumni Award** at the Founders' Day Dinner on September 22. She presented a seminar in the department on September 23 titled *Cartapip: An Example of Biotechnology Science to Worldwide Business*". Professor Corey visited her in Hamilton, New Zealand in November, 2009.

Steven R. Villasenor BS 1975 is now in the Bay Area, CA in an entrepreneurial adventure with his wife Pat. Their families are still back in St. Louis. He is Chief Executive Officer of *CMC*

Technology Management Group, Inc. providing small molecule related services to the Pharma/Biotech Industries. He presented three posters at the meeting of the American Association of Pharmaceutical Scientists at the Nov. 09 Annual Meeting in LA. He has also been invited to present at the annual meeting of the Parenteral Drug Association in Mar. 10. His entrepreneurial activities of 2 years are quite consuming right now but he does manage to take advantage of California's nature beauty at the beach and living at the foothills of Mount Diablo in Clayton, CA.

Andrew Ratermann BS 1976 who has a PhD from the University of Indiana was one of group of not so young chemists on a nostalgic float trip on the Eleven Point River. **Bill McCarthy** BS 1975, PhD 1984 organized it and on the trip were **Greg Steiner** BSBA 1976 and his son David, **Andy**, his wife Renee and son Davis, **Bill McCarthy**, **Jim Wheatley** BS 1989 and Lol Barton. It rained and we got soaked, some of us capsized and we had a wonderful time. Andy had been with GenCorp Automotive in Marion, Indiana for many years but lost his position as the economy went south. Recently, he has been working with PRAXAIR in Indianapolis.

Clarice Rieser, BA 1977 was in touch with us recently. She and her husband Richard, who live in Hallsville, MO, had just visited **Mollie Freebairn**, BS 1978, who is with the Missouri Department of Natural Resources. They had lunch with Mollie and her son Harrison who was home for Thanksgiving from college on the west coast.



Jim Wheatley BS 1989, Greg Steiner BSBA 1976, his son David, Lol Barton, Davis and his father Andy Ratermann BS 1976 and Bill McCarthy BS 1975, PhD 1984 on a float trip on the Eleven Point River in September 09.

Pauline Bellavance PhD 1978 tells us she will be 65 this April but has no plans to retire. She enjoys her job at St. Joseph's School in Greenville, SC, very much. Her husband Mike is also 65 and does not plan to retire for a while either. She is playing golf again and she and Mike belong to a great course. They have 4 grandchildren now - 3 boys and a girl. Sara is 7 and in 1st grade, Michael is 4 and in K-3, and 2 grandsons in San Jose - Teddy is 3 3/4 years and Bengi is almost 2. Pauline does a lot of gardening these days, vegetables and flowers.



Eike Bauer receives the Pfizer Green Chemistry Award for 2009 from Pete Kleine, BS 1978, MS 1982.

H. Peter Kleine, BS 1978, (MS 1982) is Associate Director, Research Chemistry at *Pfizer, Inc.*, in St. Louis. He was pleased to escape the Pfizer axe earlier this year but as he told us in mid November, he had been "Pfired". He said it was hard to dodge a nuclear blast! He, along with 600 other colleagues, will be swept out by Pfizer early next year, essentially anyone in St Louis connected to small molecule work, chemists and biologists. Pete was involved in the Pfizer Green chemistry initiative and with other colleagues, was instrumental in recommending Professor Eike Bauer for the **Pfizer Green Chemistry Award** which Bauer won in 2009.

1980s

Deborah F. Bergstrom BS 1980 continues to run her consulting company in the DC area although business is understandably quiet at the moment. She is very busy serving as an Adjunct Professor of Chemistry at Frederick Community College in Frederick, Maryland.

Charles Calvert BA 1981, tells us that after graduation from UMSL he pursued an MBA degree and eventually migrated from the technical world to business - first in sales and marketing and eventually to sourcing and procurement. Along the way he worked and lived in Chicago, Houston and now New London, CT. He is currently with *Pfizer Inc.* as a Senior Director in Worldwide Procurement. In this role, he leads global teams that provide strategic sourcing support to the development (clinical) organization, the medical organization, the pharmaceutical sciences organization, and in his spare time, has responsibility for import/export compliance and logistics for both the human and animal research divisions.

Joan Twillman BA 1981 is active in the *Confluence and Great Rivers Chapters*. In 2009 Joan was honored with the *Monsanto Science Teaching Award*. It is sponsored by the Monsanto Foundation in cooperation with the University of Missouri-St. Louis and is given annually to a science teacher in the state of Missouri. The award consists of a recognition plaque awarded at the statewide Junior Science, Engineering and Humanities Symposium and an honorarium of \$1,000. She currently teaches chemistry at St. Charles West high School.

Steve Szymczak BA 1983 works for BJ Services in Houston Texas where he is Manager – Product Line Technology. He has been in the oil field chemical business since joining Petrolite in 1984 after graduating in 1983. The most interesting part of his job has been international travel. Currently he manages the introduction of new technology into the marketplace.

Angelo Vangel BS 1983 had lunch with the editor last summer. Angelo is Director of Research for the Lighthouse for the Blind. They have had success recently in acquiring a government contract for a water-based degreaser they developed. This is the second largest chemical product (in that particular category) that the government purchases. The number one product is WD-40!

Barbara Brown BA 1984 is Manager, Student & Special Services, College of Optometry/Optomestrist at UM-St. Louis. Recently she was named as one of the 40 most influential women in optical by Vision Monday. Barb was cited for her mentoring of students. She is also a member of the leadership group of the *Chemistry Alumni Council* for the department. She will be the 2009 Distinguished Alumni Lecturer

Rajiv M. Banavali PhD 1983 was Global R&D manager at the *Rohm and Haas Company* until earlier this year. He was responsible for specialty chemical portfolio businesses with sales over \$ 500 million/yr and had been with the company for over 20 years. He left the company just before the take-over by Dow Chemical Co, to become Director of Technology, Specialty Products, with *Honeywell Division of Allied Chemical* in Morristown, NJ. He is now responsible for a specialty products business that is nearly \$ 1 billion in size with a very large R&D group (>150) around the world. The chemistry is very diverse-everything from inorganic and organic fine products to films, fibers, and waxes. This was the exciting part and he is thrilled to have this job. He is about 80 miles North of Philly, almost in NY City suburbs part of NJ. His wife is in Morristown, NJ with him now and they have purchased a townhome there.



Cecilia Marzabadi PhD 1995 (third from left) is shown in the lab with students from Project SEED at Seton Hall University. The American Chemical Society's Project SEED is the National Science Board's 2009 Public Service Awardee

James Essinger MS 1984 is Senior Research Principal, Process and Formulation at Scotts Miracle Grow, LLC. in Cincinnati. He is a member of the College of Arts and Sciences advisory board at his undergraduate alma mater, Ohio Northern University.

Ravi Laxman PhD 1987 has been Director of New Markets, ALOHA-USA S & M at Air Liquid Electronics in the San Francisco Bay area for the past five years. The ALOHA product line includes all the advanced CVD and ALD precursors for sub-130 nm, with capabilities ranging from ton-level of low-k materials down to few grams of sub-45 nm R&D products. His children are in university. Daughter Chad is at Carnegie-Mellon and son Ashi is at Case Western-Reserve.

Floris Homan BS 1985, PhD 1989 is Senior Director Analytical Chemistry R & D at KV Pharmaceutical Co in St. Louis. In spite of the economy and several layoffs, he is still there. Of the alumni who worked with him, **Victor Granat** BS 1977 is working as a consultant and is doing OK, **Craig Bruton** BA 2008 was planning on going back to school to become a high school chemistry teacher and **Laura Rexroat** BA 1983 and **Phil Rexroat** BS 1977 are both still with KV. Floris' department took a big hit, dropping from 65 people and 3 openings to 19. He tells us everything else is going fine including his family, **Peggy (Ponzar) Homan**, BA 1985 and the children.

Harry B. Harlow PhD 1988 is Lead Scientist and co-founder at R & H Unlimited in Indianapolis, IN. Prior to that he had been a research advisor for integrated biology at Eli Lilly and Co, also in Indianapolis. In St. Louis he had two stints at Monsanto where he served as leader in plant genomics and bioinformatics. *Novus International Inc.* is a spin off from Monsanto and Harry was Manager of Business Development between his two positions with Monsanto.

1990s

Catherine Carr MS 1990 is Senior Environmental Assessment Scientist at Monsanto in St. Louis.

Todd R. Boehlow BS 1991, PhD 1997 had been with *Pfizer* in St. Louis for several years but was one of the many casualties, among our graduates, from the downsizing of the company's St. Louis facility. More recently he has been with Monsanto but over the Thanksgiving holidays he got engaged to his friend Michelle Promo, a former colleague from Pfizer, and took a job offer from *Equinox Chemical* a contract laboratory in Albany Georgia; as the Laboratory Manager. The company is currently growing and is looking to double in size in the next year!

Darrell W. Hasty BS 1992 retired recently after 34 years with Chrysler in St. Louis. He has enrolled in the MS in chemistry program at UM-St. Louis and has been doing research with Jim Chickos. His son **Scott Hasty** BS 2008, is in the doctoral program in the Demchenko group.

Phillip Ordoukhanian BS 1992 completed a PhD degree with Professor John-Steven Taylor at Washington University following graduation here. He has been at Scripps Research Institute in La Jolla, CA., for 12 years; the first 4 as a post-doc in the lab of Gerald F. Joyce, and the last 8 as Director of the Center for Protein and Nucleic Acids Research, where he and his colleagues perform a variety of services for the institute (next-gen sequencing, standard sequencing, protein sequencing, peptide array synthesis, and other things). In addition, he has several on-going collaborations with several Research Faculty at the Institute, e.g., just published a couple of papers in JACS with

Floyd Romesberg. His wife Mary Ellen and daughter Jennifer Marie (2yrs) keep him company and hopping.

Jean (Huhmann) Vincent BA 1993, PhD 1997 continues as Senior Development Chemist with *Air Products and Chemicals, Inc.*, in Allentown, PA. She says her boys 4 and 8 years are growing up.

Edward T. (Tom) Kuefler BA 1993 (PhD 1998) has been working for Access Courier and taking care of his mother in Chesterfield in addition to maintaining his residence in Iron County.

Courtney Aldrich B.S. 1994 now lives in Minneapolis, Minnesota with his partner Hiromi Mizuno (a Professor of Japanese History at the University of Minnesota) and their beautiful daughter Kumi (5 years) and son Kai (2 years). After graduation he worked at *Beck Flavors* in St. Louis as a QC chemist analyzing batches of flavor chemicals. After an enjoyable year learning about flavor chemistry, he decided to attend graduate school ultimately receiving a Ph.D. in Chemistry from UCLA (2001) with Craig Merlic. He subsequently postdoc'd at the Max Planck Institute for Molecular Pharmacology in Germany with Prof. Herbert Waldmann (Dept. of Chemical Biology) then at the University of Minnesota (Dept. of Microbiology) with Prof. David Sherman. In 2005 he began his independent career at the newly formed Center for Drug Design at the University of Minnesota. His research is on the development of new antibiotics with a focus on tuberculosis. He has published numerous papers in the area and his work is supported by several grants from the NIH and the Bill and Melinda Gates Foundation. He thanks the UMSL Department of Chemistry for providing him with a solid educational foundation that was instrumental to his development as a scientist. When we contacted him he was in Japan on vacation with his family and also trying to complete an overdue book chapter.



Karen Linck BS 1994 is Regional Sales Manager for Industrial Products at Wixon, Inc., a leading food and flavor products manufacturer. She manages current customer accounts and expands sales opportunities for the company's product line in Wisconsin, Iowa, Minnesota, and Missouri. Prior to joining Wixon, she was a strategic account executive for Kerry Ingredients, Inc. She has more than 12 years of marketing and technical experience in products for the food industry including protein, seasonings, and prepared meals. Karen and her husband, John, will continue to reside in suburban St. Louis.

Kim Gorman BA 1993 was featured in an article in the Columbia Tribune published in January 2009 about a joint venture between the University of Missouri and the *Paternity Testing Corp* (PTC) which seeks to revolutionize forensic work relating to rape cases. Kim is President of PTC, a 14-year-old business whose primary focus is DNA testing for paternity cases but is also forensically accredited for criminal work.

Hong Fang PhD 1995, who did her graduate research with Dr. Barton, is Senior Technical Specialist Manager, Division of Bioinformatics Z-Tech, an ICF International Company at the National Center for Toxicological Research, Food and Drug Administration in Jefferson, AR. She sent us some nice pictures of her family Caribbean vacation in December 2008.



A group of new doctoral students which included graduates **Nichole Curvy**, BS 2009, **Ben Martin** BS 2007, **Mercy Kiiru** BS 2009 and **Julie Stambeck** MS 2009. They are 5, 6, 7 and 11 from left.

Elizabeth A. Amin BA 1996, PhD 2002, Assistant Professor of Medicinal Chemistry at the University of Minnesota, was excited to inform us during the summer that her first NIH R01 grant as Principal Investigator had been funded. Entitled "Anthrax Toxin Lethal Factor Inhibition Study" (NIH/NIAID) it is for \$1.2 Million direct, \$1.9 Million total, and started on July 5, 2009. She had 4 papers in 2008 and 5 in print or in press in 2009. She is also co-investigator 3 other funded NIH grants and she says she spends most of her time writing these days.

Yanina Levchinsky-Grimmond BS 1997, MS 2000 and **Brian Grimmond** PhD 2000 visit the department regularly and were last in following Thanksgiving 2009. They were excited about their planned trip to Scotland for the holidays to visit Brian's home and Yana was also excited about her planned side-trip to Paris. Brian plans to play golf with the editor when they next visit St. Louis.

Rafaat (Raef) Shaltout PhD chemistry 1997 has been an Intellectual Property Attorney at The Dow Chemical Company in Midland, MI since 2006. He was formerly a Patent Attorney at McDonnell Boehnen Hulbert & Berghoff LLP in Chicago. He received his law degree from the Chicago-Kent College of Law at Illinois Institute of Technology and completed his PhD here under the direction of Dr. Corey.

Patrick. W. Troutman BA Chemistry 1998 is working as a Recruiter with *Lab Support* in Milwaukee. He spent 10 years in the food ingredient industry as a Chemist prior to transitioning out of the lab.

Yahia Z. Hamada PhD 1999 is Associate Professor of Chemistry at LeMoyne-Owen College in Memphis, TN. He has an active research program and has been busy refereeing articles for several journals. His work is related to his graduate work

with Dr. Wes Harris in bioinorganic chemistry and involves the interaction of citrate and homocitrate with molybdenum.

Andrew G. Breite BS 1999 is Senior Research Scientist at *VitaCyte, LLC* in Indianapolis. He previously worked as an Assay Development Scientist at *Quadraspec*, a Development Scientist and Laboratory Manager at *Embedded Concepts, LLC* and a Development Scientist at *Roche Diagnostics* in Indianapolis. He holds a MS degree in biochemistry from Purdue University and expects to graduate this year with an MBA from Butler University.

Robert A. Stockland, Jr. PhD 1999 moved from Bucknell University in Lewisburg PA last year to the University of North Texas in Denton, Texas, and although he formally quit, the University President at Bucknell asked him if he would instead accept a leave of absence. He did that and was very pleased because he found conditions unsuitable at UNT. He is Associate Professor at Bucknell and is productively conducting research and teaching both inorganic and organic chemistry.

Cecilia Marzabadi PhD 1995 was featured when the ACS program Project SEED was given the National Science Board's Public Service Award. She is shown in a picture with students from Project SEED at Seton Hall University. She has been a SEED mentor for several years. Her doctoral degree was completed in Chris Spilling's laboratory.

Bradley Resnick MS 1996 is with *Pfizer Inc.*, working as a bioanalytical chemist. He had previously been with *Chemir Analytical Services* (Cyanta Division), *Monsanto* and *KV Pharmaceutical Co.*

Eric Bruton BS 1997, PhD 2003 is co-chair of the Younger Chemists Committee of the St. Louis Section of the ACS. Unfortunately Eric was recently let go by *CrossLink Inc.* in St. Louis. He is currently teaching at Lindenwood University in St. Charles.

Anne Cafferty-Turnbough PhD 1998 is still in Houston but decided to make a career change in September 2008, the same week as Hurricane Ike hit. *Novozymes*, where she was working, was pushing her to move to Copenhagen, so she took another opportunity and is now a consultant with *Exponent Inc.* It was certainly an adjustment after pure industry and some days, with each new project that comes, she has to become an expert in a new highly technical field very rapidly. So on a Monday she could be doing surfactant metabolism and the next day defending the safety of canola oil – so never boring! Her office is in DC, but she works mainly from Houston. Her family which consists of Katie 9, Oren 6 and husband Joe, is pleased she did not go to Copenhagen! She keeps up as well as she can with her former classmates and would love to hear from them.

2000s

Aaron Burns BS 2000 expects to complete his PhD degree at the University of Minnesota with Thomas Hoyer this next spring and then go on to do postdoctoral research with Barry Trost at Stanford. Aaron began his graduate work in the group of Craig J. Forsyth and when Forsyth moved to Ohio State, Aaron joined the Hoyer group. He visited the department in December. He

and his wife Rachel have three children.

Katherine M. Block BS 2001 is a graduate associate in molecular biology at the University of Arizona and expects to complete her PhD this year. We note that she was first author on a JACS paper earlier this year.

Viktoriya (Sedelkova) Gruden BS 2002, MS 2005 moved from Sigma-Aldrich to *KV Pharmaceuticals* just before the effects of the recession hit so we hope all goes well there.

Mario Gruden, BS 2003 was leaving Sigma Aldrich to join Monsanto as an Inventory Manager a similar position to that at Sigma, the last time we heard from his wife **Viktoriya (Sedelkova) Gruden** BS 2002, MS 2005, in January 2009. He was 2 classes away from receiving his MBA degree and he is very interested doing supply chain work and Sigma did not have any opportunity for him so he hopes Monsanto will.

Kristina (Alderman) Thompson BA 2004 continues working at Spectrum Brands and has been there for 4 years. She and her colleagues are busy trying to keep the company afloat. The company actually filed for bankruptcy in February, but emerged from that recently this fall. She is also taking a class at Florissant Valley Community College, completing the required courses for admission to graduate programs in math. She is considering the programs at UMSL and Washington University.

Papapida Pornsuriyasak PhD 2006 had been working with her PhD advisor Prof. Demchenko as a post-doc for 2 yrs. After returning to Thailand, she worked briefly for *Merck* as a product manager but was not happy there so she moved to ASDI Inc where she was doing solid organic synthesis for drug derivatives and really liked it. She had applied for many positions prior to returning to Thailand and received an offer from the Petroleum Authority of Thailand. She is now Senior Researcher in the Innovation and Technology Department for *PTT Phenol Co. Ltd* in Bangkok.



Members of the Younger Chemists Committee of the ACS St. Louis Local Section with Keith Stine including graduates **Archana Parameswar** PhD 2009, extreme left and **Eric Bruton** BS 1997, PhD 2003, second from right.

Mark Ulrich, BS 2003, MS 2006 continues with *Sensient Colors* in St. Louis in the R&D department. His activities have

generated one patent and two more are forthcoming. He and his wife Missy have two children, 12 and 7 this year

Bingli Yan PhD 2005 now has her H-1 Visa and continues her work at *Sigma-Aldrich* in St. Louis. She had a baby girl Ali recently. We were pleased to see her, along with former lab-mates **Amy (Thanavaro) Trnakler** PhD 2004 and **Nongnuch Sutivisedsak** PhD 2009 at the festivities associated with their advisor, Chris Spilling, receiving the ACS St. Louis Section Award.

Eun Woo Choi, BS 2004 is doing a PhD at UCLA with Professor Omar Yaghi.

Hillary Goode MS 2008 is with *Kalexsyn* in Kalamazoo, MI After grad school, she took a contract position at Pfizer in Chesterfield, doing outsourcing work. She worked with various Pfizer teams and with vendor contract research organizations (CRO) - both domestically and internationally. She was there for 1.5 years and through her Pfizer contract position she obtained her position with Kalexsyn, a company formed by two ex-Kalamazoo Pfizer people. She is the Proposal Coordinator there and is happy to be back in Michigan and closer to family and snow!

Lori (Bowen) Gwyn PhD 2005 was a postdoctoral fellow at the University of Oklahoma Health Sciences in Oklahoma City where she studied protein:DNA interactions. She was awarded a 3 year National Institutes of Health Postdoctoral Fellowship in 2007, and has been co-author on one paper since moving there. She was married in 2005 after moving to Oklahoma City and had twins on May 16, 2008, a boy (Jacob James) and a girl (Caroline Grace). She has since changed positions and is now she is a Chemist at *Danlin Industries* in Oklahoma City.

Kara Kinzel BS 2008 had been employed, from May 2008 until October, 2009 at IQSynthesis/Azopharma product development group in Maryland Heights. The company had been struggling all year, and they made a massive downsizing and she was laid off. She was searching for a new position when we last heard from her.

Michael J. Lantzy BS 2007 has been an Inside Sales Representative with *KnowledgeLake* a computer software company, since October 2008. From March - October 2008 he was Player/Manager of the Hanover Regents baseball team in Germany and prior to that he was a Jr Sales Representative with *Information Builders*.

Sujittra Srisung PhD 2007 is back home in Bangkok and is Assistant Dean for Academic Affairs and Quality Assurance in the Faculty of Science, Lecturer in the department of chemistry and researcher in the Center of Jewelry Material Innovation and Integration at Srinakharinwirot University.

Christina Van Preter BS 2007 is working at Monsanto in their *Roundup* formulations department. She had just started there when we heard from her and was finding it very interesting and challenging.

Joe Kolf, BS 2008 since September 2008 has been an R & D

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

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

Melissa R. Austin, BSBB
Matthew B. Kuehne, BSBB
Rose S. Mitchell, BSBB
Mario R. Ribas, BSBB
Michael B. Trammel, BSBB

Nida Jawaid, BSBB
Hanna J. Latham, BSBB
Blane R. Popetz, BSBB
Leesa M. Stewart, BSBB
E. K. Watson-Collins, BSBB

BB is short for Biotechnology and Biochemistry.

The Chemistry Club

2009 was another exciting year for the ACS Student Affiliate **UMSL Chemistry Club** (Faculty Advisor, Michael Nichols). The Chem. Club continued its involvement in many activities including Student-Faculty Lunches, National Chemistry Week, and the annual Welcome Hot Dog BBQ on the Science Complex back patio. With a great design by David Putnam and artistic help from the club officers, the Chem. Club was awarded 3rd place in the 2009 UMSL Homecoming Banner contest. Officers for 2009-10 are James Braun (President), Mary Keithly (Vice-President), Kristen Sachs (Treasurer), Rachel Gruber (Secretary), Philip Janini (SGA Rep), and David Putnam (PR/Historian). 2008-09 officers were **Nichole Curvey** (President), **Holly Scheibel** (Vice-President), Lai-Ping "Pinky" Yan (Treasurer), **Mercy Kiiru** (Secretary), **Nathan Birhanu** (SGA Rep), and **Audrey Carpenter** (PR/Historian).

Faculty News

Some special items appeared in the press this past year so we highlight them herein.

The University of Missouri, System-Wide Faculty Entrepreneur of the Year 2009 Award went to Professors **Wes Harris** and **Chris Spilling** for their work on removal of aluminum from infant feeding solutions. The award was established to honor a University of Missouri faculty member for a record of entrepreneurial innovation that demonstrates commercial utility, contributes to the public welfare, and brings visibility to the University of Missouri. The award carries a stipend of \$15,000. This is the second time the award has gone to a UM-St. Louis chemist since it was established in 2002. In 2004, Professor **Zhi Xu** was honored with the award. Their work was featured in an article in the *St. Louis Post-Dispatch* **Pair try to make babies IVs safer** which appeared in March 2009.

Keith Stine was featured in a story about his research for a faster test for prostate cancer in a story that ran Oct. 1 in the *St. Louis Post-Dispatch*. Keith is the 2009-2010 recipient of the Chancellor's Award for Excellence in Service. This Award recognizes and honors outstanding academic, humanitarian, or professional service on the campus and/or beyond the boundaries of the University. An award plaque and honorarium of \$1,000 was presented at the Chancellor's State of the University Address in the fall semester. Also Keith will be presented with the **St Louis Section-ACS Distinguished Service Award** in March,

2010. The award was established in 1993 by the Board of Directors and is intended to recognize distinguished service by a member of the Section through excellent contributions, outstanding leadership, and continuing service to the Section.

Hal Harris has been named recipient of the *2010 Science Educator Award* of the Academy of Science – St. Louis. The award recognizes a distinguished individual or organization on the basis of outstanding contributions to science education or to the public understanding of science, engineering, or technology. **St. Louis Scientists Awards** will be presented at the Awards Dinner April 22, 2010 at the Chase Park Plaza.



May 2009 graduates, l to r, Alemu Azanaw, Mercy Kiiru, Ryan Uding, Nichole Curvey, Nathan Birhanu, Audrey Carpenter and Matthew Stockel with Chris Spilling

Chris Spilling won the 40th St. Louis Award of the St. Louis Section of the ACS. It was presented at the St. Louis Award Banquet on Saturday October 17 and the St. Louis Award symposium was held on campus on Friday October 16.

Eike Bauer was named by the *Pfizer St Louis Green Chemistry Committee* the recipient of their 2009 \$5000 award. It was presented in October at the Pfizer Green Chemistry Symposium by **H. Peter Kleine** BS 1978, MS 1982.



Dr. Spilling with **Teresa Bandrowsky** BS 2008, Coombs Award Winner

The Faculty

Eike Bauer added a graduate student, **Nichole Curvey** BS 2009 and also a new undergraduate student, Nandini Rajashanmugam to his research group. Almost all the members of his group members attended the Midwest Regional ACS meeting in Iowa City and presented posters there. He and graduate student

Stephen Costin gave talks. He also was awarded the Pfizer St. Louis Green Chemistry Award 2009 (\$5000).

Alicia M. Beatty organized the 20th Midwest Organic Solid State Chemistry Symposium at UM-St. Louis in the summer. Among the participants was **Dr. Lee Brammer**, former colleague of ours, who is now at the University of Sheffield in the north of England. Dr. Beatty shepherded through Brammer's last doctoral student **Colin Rodger** who had taken a leave of absence. Colin graduated in December 2009 and is now working at *Covidien* in St. Louis. Dr. Beatty's research group will benefit from the new X-ray diffractometer which has just been set up in the department.

James S. Chickos is firmly entrenched as the longest serving faculty member, a distinction he is unlikely to relinquish for some time. He attended the ACS Regional Meetings in Chicago (Great Lakes) and Iowa City. He also attended the Gordon Conference in Plymouth NH, and then traveled with his friend Linda Snider to Nova Scotia. This summer he spent several weeks at his cabin in Michigan and he continues to enjoy canoeing in the Ozarks and bicycling around St. Louis and also in Columbia MO.

Valerian T. D'Souza continues to focus on teaching and carries one of the heaviest loads in the department. He regularly teaches the chemistry courses for the health professions, he rotates through the old Chem. 11 course, handles three sections of organic lab each year and also teaches the upper-level physical organic chemistry course when it is offered.

Alexei Demchenko, who joined the department in August 2001, continues his successful research program in the area of synthetic carbohydrate chemistry and has been serving as the Director of Graduate Studies. During 2008-2009, his research group published 22 articles and received grants from NSF, NIH, and American Heart Association. Recently, along with Keith Stine, he was awarded a 1.1M grant from the National Institute of General Medical Studies for their collaborative effort on developing Surface-Tethered Iterative Carbohydrate Synthesis (STICS). Currently, his research group consists of a post-doctoral fellow, **Archana Parameswar** (UMSL Ph.D., 2008), six graduate students and seven undergraduate researchers. He has been reelected to serve for another two-year term as a Member-at-Large of the Executive Committee of the Division of Carbohydrate Chemistry of the American Chemical Society and is continuing to serve on the Editorial Advisory Board of *Carbohydrate Research*. In addition, he is now the Chair of the Spring Panel Faculty Senate Committee on Research 2009-2011.

Cynthia Dupureur gave seminars at five universities in the Midwest in the spring semester of 2009, including a trip to Nebraska-Lincoln in a visit hosted by former faculty member Don Becker. This summer she attended the Gordon Conference on Enzymes in New Hampshire and presented work in which she collaborates with Dr. Spilling's group. She also co-organized Great Plains Annual Regional Symposium on Protein and Biomolecular NMR (GRASP) held in Lawrence, KS this past September. For its annual summer "Hooky Day," the Dupureur Group hiked at the hilly Hawn State Park. The rest of the group had a challenge keeping up with group member Binod Pandey, who is from Nepal. In October, student **Charulata Prasannan** PhD December 2009 attended the Gibbs Conference on

Biothermodynamics held in Carbondale, IL, while another, Supratik Dutta went to the Midwest Enzyme Conference in Chicago. Dr. Dupureur continues as chair of graduate recruiting and admissions and asks that you encourage promising students to apply to our MS or PhD programs.

George W. Gokel is Distinguished Professor of Science and Associate Director of the Center for NanoScience. During 2009 he lectured at the *Center for Emerging Technologies*, St. Louis, MO on January 16, and gave invited lectures in the LINC Symposium at Southern Illinois University Edwardsville, to the Department of Chemistry, at the University of Miami, Coral Gables, Florida, to the Department of Chemistry of Saint Louis University, at the ACS National Meeting, Salt Lake City, Utah, Symposium on Membrane Active Compounds, to the National Institute of Biomedical Imaging and Bioengineering Symposium, IT Enterprises, St. John, MO, at the Midwest Organic Solid State Chemistry Symposium XX at UM-St. Louis, to the Department of Chemistry at Macalester College, at the International Symposium on Macrocyclic and Supramolecular Chemistry, Maastricht, Holland, to the Chemical Research Department, at MDS Nordion, Ottawa, Canada, at the Danforth Plant Science Center, St. Louis, at the ACS Midwest Regional Meeting in Iowa City, in the program Current Topics in Nanomedicine, at Washington University School of Medicine, to the Department of Chemistry, University of Ottawa, Ottawa, ON, Canada and to the Departments of Chemistry and Chemical Engineering, University of Cincinnati.



Wes Harris and Chris Spilling with UM President Gary Forsee when they received the University Entrepreneur of the Year Award.

Harold H. Harris, as mentioned elsewhere, will be presented with the St. Louis Academy of Science, *Science Educator Award* for 2010 at the annual Awards Dinner on April 22, 2010 at the Chase Park Plaza Hotel. He continues his work on the Chemical Education Resource Bookshelf, a feature of the Journal of

Chemical Education but since the journal is now allied with all the ACS journals, as opposed to being published separately by the ACS Division of Chemical Education, he is concerned about the extent of exposure it will have in the future. He participated in the bicycling time trial on the new Highway 40 before it opened on December 14 last year and most recently on December 6, 2009 before the second section was opened to traffic. While he didn't pass anybody, he managed to place 157th, 4 spots ahead of his son. Hal also claims to be the anchor of his USTA tennis team, in every sense of the word.

Wesley R. Harris continues to work on transferrin chemistry, but has been putting more effort into the study of some new low-molecular-weight chelating agents that are being synthesized in Chris Spilling's lab. Wes continues to serve as the Director of the Biochemistry & Biotechnology Program. This program is doing well, with about 100 undergraduate majors and 50 MS students. Wes and his wife, Marion recently traveled to Iowa City for the regional ACS meetings. The visit was particularly enjoyable because they were able to spend some time with our former colleague Chris Pigge and his family. He recently had a visit from former Ph.D. student **Peng Xiong**, PhD 2006, who was on his way back to China to take a position in there. Wes' son, Jonathan, has moved to Hawaii (Kauai). Wes and Marion will visit him over the Christmas holidays, and Wes is looking forward to quite a bit of hiking while they are on the Island.



Jim O'Brien along with Becca Steinberg and Meredith Redick, STARS students from Clayton high school in his lab last summer.

Stephen Holmes has been fully engaged with the promotion and tenure process, writing papers, invited seminar travel (5 this year), proposals, and renovating his house in Kentucky. In June he spoke at the 2nd Workshop on *Current Trends in Nanoscopic and Mesoscopic Magnetism*, Delphi, Greece and will be an invited speaker (again) at an international magnetism conference in June 2010 (*Current Trends in Molecular and Nanoscale Magnetism*) in Orlando. He recently obtained NSF funding for an X-ray facility upgrade. This latter essentially provides a second state-of-the-art diffractometer for the department.

Jingyue (Jimmy) Liu continues working on enhancing the brand name of the Center for Nanoscience. He gave an invited talk on the CNS energy related research initiatives at the Missouri Energy Summit in April, and in November he spoke at the Missouri Nano Frontiers Symposium on the overall nanoscience

research activities of the center, *From alternative energy to nanomedicine*. He, with colleagues from Washington University, Saint Louis University and the St. Louis Community College, helped establish the St. Louis Institute of Nanomedicine. The latter obtained \$1.5 million from the Missouri Life Sciences Research Board as seed money and had its opening ceremony in July. He and Professor Samuel Wickline of Washington University discussed the use of nanotechnologies in medicine and the new St. Louis Institute for Nanomedicine on KWMU. During the year he gave invited lectures at the 237th ACS meeting in Salt Lake City, 2009 Microscopy & Microanalysis meeting in Richmond, VA, and the 11th International Conference on Advanced Materials in Rio de Janeiro, Brazil. His students obtained four poster awards at the national and regional electron microscopy meetings.

Rensheng Luo continues to run the NMR lab. To improve performance for the current aging facility, he upgraded the Bruker Avance 300 with a faster computer and a new version of the software, replaced the workstation for the Varian Unity 300 and the data disk for the Bruker 500. In 2009, he published one paper through collaboration. He was involved in the efforts to add a 600 MHz spectrometer with pulsed field gradient accessory and three-channel detection system to the facility. This state-of-the-art facility not only provides the latest technology for researching at the frontier of chemistry and biochemistry, but also makes certain that our students are educated using the most advanced techniques available.

Michael R. Nichols continues to investigate Alzheimer's Disease-related research. The last year in the Nichols lab saw publications in *Brain Research* and *Biochemistry*, an NIH R15 Grant Award, and the graduation of PhD students **Deepa Viswanathan**, **Nikkilina Crouse**, and **Maria Udan**. Continuing PhD student Geeta Paranjape is in her 4th year and is joined by new PhD student Shana Terrill. Undergraduate researchers this past year were **Jill Touchette** BSBB 2009, Matheen Mohabbatt, and Ryan McDonough. Conferences attended by Mike and the lab members included the American Society for Neurochemistry (Charleston, SC) and the ACS Midwest Meeting (Iowa City, IA).

James J. O'Brien was featured in the St. Louis Post-Dispatch in June highlighting his mentoring of two Clayton high school students in the UM-St. Louis STARS (Students and teachers as Research Scientists) program. Meredith Redick who was to be a senior at Clayton High School, conducted high-resolution molecular spectroscopy experiments along with fellow student Becca Steinberg, who was to be a junior also at Clayton HS. See the associated picture.

Nigam P. Rath tells us that the X-ray diffraction lab has been humming with activity with the new users and he has been busy non-stop collecting x-ray data sets. He has already collected more data in the last 6 months than the normal year's collection. A second single crystal diffractometer was recently installed and data collection is underway. The graduate course in x-ray crystallography has 21 students, the largest ever such class. Our students including undergraduates are now able to collect their own data sets, both for teaching and research purposes. Nigam presented an invited talk at the Bruker Users Meeting in Madison in June 2009. On the personal side, he and his wife have been spending as many weekends as they can get away from their work visiting with their daughter Nilu in Kansas City who is now

a second year BA/MD student at UMKC.

Christopher D. Spilling despite the time consuming duties as Chair, Chris continues to maintain a credible research program. He is funded by NIH and has a group of six PhD students. He teaches the Advanced Organic Lab (Chem 3643) each fall and is excited to be teaching the Advanced Organic II (reactions and mechanisms) for the graduate students in the coming spring. The last time he taught this course was six years ago and it has always been one of his favorites. He attended the Reactions and Processes Gordon Conference in the summer and presented a poster. He and his students attended the ACS Midwest Regional Meeting in Iowa City in October. Chris and David Weimer (University of Iowa) organized a very successful symposium on organophosphorus chemistry. The meeting was particularly enjoyable because he was able to spend time with former colleague **Chris Pigge** and his wife Beth Ann. Spilling was pleased to hear from all of his former Ph.D. students after the announcement of the St. Louis Award. All appear to be doing well. The Spilling family is doing well. Andrew (18) is a freshman at Embry Riddle Aeronautical University in Daytona Beach, Florida. He is studying aeronautical engineering on a Navy scholarship. Robert (16) is a junior at De Smet high school and William (11) is in 6th grade at St. Ann School.

Keith Stine received the *Chancellor's Award for Excellence in Service* in 2009, partly in recognition of his major role on the campus re-accreditation committee. UM-St. Louis was re-accredited for another 10 years by the Higher Learning Commission, a feat only achieved by 5% of schools up for re-accreditation. This past year, he completed his duties as Immediate Past Chair of the St Louis Section of the ACS, by submitting the annual report, organizing the annual picnic, and picking up the *ChemLuminary Award* won by the St Louis Younger Chemists Committee at the ACS meeting in Washington, DC. During 2009, he coordinated ACS Project SEED, and 3 students from economically disadvantaged families carried out research in the department working with Dr. Holmes and with Dr. Beatty and during the same summer, he hosted high school students Marta Wells and Amy Hacker in his lab as a part of the STARS program. Marta later won an award for her research paper. His research remains focused on studies of model membrane systems and surface modification of nanostructures for life science related applications, at present with a focus on nanoporous gold. Together with his co-PI, Alexei Demchenko, he received a NIH grant supporting their collaboration on the application of nanoporous gold to carbohydrate synthesis and immunoassay development. The special R01 grant covers a four year period and provides just over \$1M in support. The first paper describing their new 'STICS' approach appeared in *Chemical Communications* in 2009. During the past year, he also wrote a chapter on enzyme immobilization on nanoporous gold for a book being edited by Prof. Shelley Minteer of Saint Louis University.

Janet Braddock-Wilking has been busy planning for her role as Organizer/host of the 43rd Silicon Symposium to be held in St. Louis in May 2010. Two new graduate students, 2009 department graduates **Teresa Bandrowsky** BS 2008 and **James B. (JB) Carroll** BS 2009 joined her research group this past year. During the year she presented a poster at the 42nd Silicon Symposium in Long Branch, New Jersey in June and another one at the 1st *Symposium on Nanotechnology for Public Health,*

Environment, and Energy at Washington University.

Chung F. Wong had two high-school students, Michael Rizzo and Frank Schumacher, working in the lab this summer, as part of the Students And Teachers as Research Scientists (STARS) program. They co-authored a paper published in the *Journal of Medicinal Chemistry* and became the youngest co-authors with Chung so far. Undergraduate Mayank Goyal, was also a co-author of the paper. This year, Dr. Baojing Zhou, a senior postdoctoral research fellow in Chung's laboratory, has emigrated to Canada and moved on a new position at the University of Calgary.



Chancellor's Award recipients for 2009, H-G Fung, the Dr. Y.S. Tsiang, College of Business, for research and creativity; Keith J. Stine, Chemistry and Biochemistry, for service; D. J. Griesedieck, Philosophy, for an academic non-regular; and L. A. Slocum, Criminology and Criminal justice, for the Gerald and Deanne Gitner Excellence in Teaching Award.

Zhi Xu continues his research into the development of new optical analytical instrumentation, investigation of new photonic materials, and study of solid-liquid interfacial chemistry. In December 2008 he and Dave Larsen were awarded a US Patent for "Light Scattering Detector".

Emeritus Faculty Members

Lawrence Barton continues to enjoy his new role in the department dealing with alumni and external activities and also advising undergraduates. He attended the two national ACS meetings (Salt Lake City and Washington DC) and continues to be active in the Society as a councilor and also at the local level. He and Pat took their annual trip to the UK later than usual this year – November. Pat was over there in July to help her aging parents move into sheltered living so the annual trip was delayed. The year also included a brief vacation in the Dominican Republic, February in Florida and several trips to see daughter Hilary in Stillwater, OK. Son Andrew was married in November and the golf continues to be an important part of life. The handicap ranged from 19 to 15, flirted with 14 and ended the season at 16.

Joyce Y. Corey is delighted to have just finished and submitted in November, the article for *Chemical Reviews* she has been updating. She spent a month in Maine this summer as she has for many years and also attended the 42nd Silicon Symposium in

Long Branch, New Jersey in where she chaired a session. She took two trips to visit former students this year. She spent time with **Vincent H. T. Chang** MS 1980 in Chicago and visited the new modern art exhibit in the new facility at the Art Institute there. Vincent is with Abbot and his two children are approaching college age. Joyce also visited **Roberta L. Farrell**, BS 1975, in New Zealand in November where we understand she had a wonderful time.

David L. Garin participated in a summer long series of artistic events in Brooklyn, NY called Waterways. Collaborating with three Danish choreographers, a composer, an architect and an installation artist, Garin's role was scientist/environmentalist (www.prefabglacier.wordpress.com). The program focuses on water and the process of connecting art and dance with science. Garin demonstrated two well known chemical reactions, utilizing the facilities of the Chemistry Department at the City College of New York, and performed water quality tests and tastings with public participants. Dave and his friend Peggy continue to be very active in environmental issues and this year they celebrated their birthdays and 25 years together at a very nice party at her daughter's home in the Central West End.

Rudolph E. K. Winter continues to be busy in the Mass Spectrometry Facility where he spends most of his time Monday through Thursday. He would be happy if more alumni came into the department to see him. He and Margaret enjoy traveling to see family and friends and also spending time with their five grandchildren.



Yana Levchinsky-Grimmond and her former advisor Janet Wilking met with a group of old-timers in the summer: from left Dr Barton, Yana, Drs. Chickos, Winter, Garin, Corey and Wilking.

Staff Members

Donna Kramer took a disability retirement earlier this year as a consequence of her advancing Multiple Sclerosis. She is doing well and was in the department over the holiday with her husband **Joe Kramer** who continues his role as spectroscopist running mass spectra and maintaining the Mass Spectrometry Facility. **Joe Flunker** continues as Scientific Glass Blower but is not full time in the department. He recently taught a course in scientific glassblowing. **Bruce Burkeen** continues his role as the replacement for Ted Windsor. Bruce occupies the old Physics

Department shop and serves both departments. **John Tubbesing** who joined the staff recently as Senior Electronics Technician, as a replacement for Mark Regina who resigned two years ago, has been ill but is now back in the department and doing well.

The office staff presents a level of stability and competence that is absolutely necessary for the smooth running of the department. **Angela Thomas** is Administrative Associate who came to us from Monsanto 6 years ago. **Donna Lemp** is a Secretary and has been with us now for 8 years. Donna came from the college of Education. The third member of the staff is **Michelle Haley**, also a Secretary and she has been with us for 5 years. Michelle came from the St. Louis Public School System.

Former Staff Members

Betty Eshbaugh who ran the department office from 1964 – 1996 continues to split her year between her home in Ferguson and one in Pharr, Texas, 3 hours south of San Antonio on the Rio Grande. We have not been able to catch her in but we have spoken to her husband Ken and we understand she still keeps fit by dancing 2.5 hours a day! Her daughter Lelo is a lawyer and is working for the FDA in suburban Washington, DC and they were to go to see her when I spoke to Ken.

Theresa (Orso) Smythe, who is mentioned later on in the Editor's report and was with us from 1974 until 1977, serendipitously met the Bartons in Oscar's Café, the new restaurant on Natural Bridge Road, in early December. When she left here in 1977 she obtained a B.A. in Deaf Education from Fontbonne College, (1981) and then spent 9 years at St. Joseph's Institute for the Deaf. She currently is working on a masters degree in Higher Education and working at St. Louis Community College-Florissant Valley with students with disabilities.

Randa Scheider is in touch with us and she continues to battle cancer, undergoing chemotherapy regularly. She is in good spirits and keeps up an active presence on FaceBook.

The Robert W. Murray Lectureship

This departmental function continues to be the major event of the visiting speaker program. Last year we tried to change the schedule and the 12th Annual Lecture was given on December 5 by **Dr. Philip P. Power**, Professor of Chemistry the University of California-Davis, who spoke on *Direct Hydrogenation of Main Group Compounds*. The change was short-lived and this next year, **Daniel G. Nocera**, who holds the titles Henry Dreyfus Professor of Energy and Professor of Chemistry at MIT, will speak on March 8, 2010.

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. The endowment provided a stipend of \$1,500 and the 2009-2010 recipient was **Rachel M. Gruber**.

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 awards went to **Geeta Paranjape, Steve Costin** and **Nikkilina Crouse**.



Dr. Lori Conlan, who completed her PhD with Dr. Dupureur at Texas A. & M. and is Director of Postdoctoral Services at the NIH, speaks with a group of graduate students.



Joe Flunker, Scientific Glassblower demonstrating his skills to high school students at Career Day.

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 2009-2010 fellowship went to **Kristen R. Sachs**. 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 2009 the fellowship went to **Lai-Ping Yan**.

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 2009-2010 fellowships went to **Lai-Ping Yan** and **Poonam Kaur**.

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 2009-10 was **Mary Keithley**.

Other Departmental Student Awards

Undergraduate

The award for the **Outstanding Student in Introductory Chemistry** went to **James T. Braun** 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 **Steven J. Akins** and the **American Chemical Society Award for Analytical Chemistry** went to **Ryan T. Uding** 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 **Mary E. Keithley**. The award was presented at the annual Awards Night during the ACS St. Louis Section's Chemical Progress Week. **Ryan T. Uding** received the **Alan F. Berndt Outstanding Senior Award** and the **American Institute of Chemists-Student Award Certificate**. The 2009-10 Undergraduate **Chemistry Aid to Education Awards** were given to **Lauren Patrick, Mary E. Keithley, Joel T. Burton, Adrian Hristov, Kristen R. Sachs** and **Poonam Kaur**. The recently established **Linda and Michael Finkes Chemistry Scholarship** was awarded to **Mary E. Keithley**. Finally **Certificates of Commendation for Outstanding Service** went to the Chemistry Club officers **Nichole S. Curvey, Holly M. Scheibel, Nathan Birhanu, Audrey Carpenter, Lai-Ping Yan** and **Mercy Kiiru**.

Graduate

The 2008-09 **Graduate Student Research Award** again went to **Laurel Mydock** and the 2008-09 **Graduate Teaching Assistant Award in Memory of Jack Coombs** was awarded to **Teresa Bandrowsky**. **Julie Stambek** was honored as the **Outstanding MS student**. **Sudeshna Roy** was a winner in the **Graduate School Fair Research Poster Competition** and a **2009-2010 Graduate School Dissertation Fellowship** was awarded to **Supratik Dutta**.

Distinguished Alumni Lecture

The 21st Annual Distinguished Alumni Lecture was presented by **Dr. Donald G. Hesse** BS 1984, PhD 1991, on May 4, 2009. Don was very successful here winning the freshman, senior and graduate student awards. Most of his time as a student involved his working part-time, mostly as an analytical chemist. He came close to owning *Chem-IR*, where he had worked for many years and continued to work in analytical chemistry part-time when he worked with Jim Chickos during his doctoral work. Although he still dabbles in analytical chemistry, and is the owner of *Veritas Analytical Services*, his day job is Vice-President of Information Technology at the St. Louis Post-Dispatch and he has been there for the past 12 years. His lecture title was *After Graduation: Fulfilling the Scientist's Desire to Experiment, Discover and Solve*. A reception followed the seminar. The lecture for 2010 will be given by **Barbara W. Brown**, BA 1984.



Dr Barton presenting Don Hesse with a framed certificate prior to his presentation of the 2009 Distinguished Alumni Lecture.

Editor's Column (Lawrence Barton)

Although I am continuing my version of the history of the department, this time covering 1975 – 1980, again I begin with a few general comments. I intend to try to continue to be the contact person for alumni and also the editor of the UMSL CHEMIST for many more years. We have asked Janet Braddock-Wilking, who already has much history with the department beginning as a student in the early 1980s and continuing since 1993 as a member of the faculty, to take over from me but I hope that will be a long time from now. Thus for the foreseeable future, I hope you will communicate with me. I

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 the group manager, Sean Dingman (1994) at Dingmans@umsl.edu. I am now a co-manager of the group so you may contact me too at lbarton@umsl.edu

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. Our LinkedIn site has done quite well as we approach 100 members. I encourage you to consider joining.

I am in touch with a number of former colleagues who are no longer with the University. I spoke to **Charlie Armbruster** in December and Pat and I intend to visit him in February in Florida. He is now an avid bridge player and continues to collect master points, something he did in the early 1980s with Alan Berndt. I also spoke to **Bob** and **Claire Murray** in December and they were both frustrated that they couldn't get out during the bad weather we were having at the end of 2009. They are very happy that daughter Kathleen has moved back to St. Louis and is living quite close to them in the same subdivision. **Gordon Anderson** and I exchange e-mails and the last time we communicated he and his family were about to go to Scotland for Xmas. He continues as Dean of the College of Arts and Sciences at East Tennessee State University. Former colleague **Eric Block**, who is Carla Rizzo Delray Distinguished Professor at SUNY-Albany recently informed his former colleagues that his book *Garlic and Other Alliums: The Lore and the Science*, had just been published. **Jim Riehl** didn't come down from the University of Minnesota-Duluth, where he is Dean of the College of Science and Engineering, to play golf with me this year but we talked about it.

A nice surprise last May was when **Marcel Halberstadt** and his wife Lucille visited us. They were in town to visit some other friends. He is retired from the auto industry but still does some consulting and Lucille still works for the Optical Society of America. We received holiday cards from the **Penns**, the **Barnetts**, the **Welshs** and **Pat Jones** widow of **Tom** who we see occasionally, and always at the Murray Lecture Banquet. Of course I see **Rudi Winter** and Joyce **Corey** regularly in the department; we see **Dave Garin** less frequently in here but we see him socially and **Dave Larsen** comes in on occasion.

Departmental History, from 1975 - 1980

The summer of 1975 represented the end of an era for the department. Charles W. Armbruster, who had founded the department and who served as Chair of the Division of Science from 1964 – 66, transitioned into chemistry chair during 1966 and served in that role until 1975, was replaced by Robert W. Murray. Another major change during this period was the retirement of the much-beloved Jack L. Coombs, chemistry stock-room manager in May 1997. Jack was replaced by **Pat Barton** BA 1977 who had just graduated with a double BA degree in chemistry and history.

The year 1977 saw our first graduates from the PhD and MS programs. The first PhD graduate from the department, **David L. Beach**, who had worked with Professor Ken Barnett, was not the first PhD on the campus – we were beaten to the punch by a student from the psychology department. Dave went on to work for Gulf Oil Co in Pittsburgh and then Chevron Chemical Co which took over Gulf, in Houston. He retired from there in 1999 where he was Senior Staff Scientist, and is now living in Houston. The first MS Graduates were **Loretta Halcher**, **David Lawrence** (now deceased) and **Suzanne Metz** BA 1972.



Todd Boehlow BS 1991, PhD 1997 chats with Joyce Corey at the reception following the St. Louis Award Banquet

The degree programs continued to grow. In the three year period 1976 to 1978 we had our largest numbers of baccalaureate for any such period in our history - 109. The doctoral program saw similar growth with three graduates in 1978, **William F. Paton**, **Pauline Bellavance** and **Farhad Ranjbar** and in 1979 **Barbara Soltz**. Our second MS class, in 1978, comprised **Michael Finkes** and the late **Larry Kaempfe**, both BS 1973. These were followed by five in 1979 including our first MS with thesis graduate **Robert Zehr**, BS 1976 who worked with Rudi Winter and four in 1980. Indeed 1980 was our largest graduate program output to date with three more doctoral graduates **Donna Friedman**, **Razia (Hameed) Ahmed** and **Larry K. Revelle**.

During the 1970s Benton Hall was remodeled several times. We took over the biology space on the second floor and the stock room had moved there too. A departmental Reading Room was set up in 1979 on the fourth floor of Benton Hall and the stock room moved again, this time to its third location on the third floor in the central section opposite the departmental office. Elsewhere on the campus, the new administration building named after Howard Woods, the first African American member of the Board of Curators, opened in 1976 as did the General Services Building at the north end of the campus near the renamed Mark Twain Building, formerly the Multipurpose Building, which housed the athletics facilities.

The campus administration changed substantially in 1975 when Arnold Grobman was hired from the University of Illinois-Chicago where he had been vice chancellor for academic affairs and special assistant to the chancellor. He replaced a series of interim chancellors including Everett Walters who had followed Glen Driscoll, and Emery Turner, former Dean of the Business School. Grobman's early contributions were to establish links to the region by initiating the Chancellor's Report to the Community, pushing for Schools of Nursing and Optometry and also the purchase of property on which Marillac College had stood as the new South campus. All of these latter goals were achieved in the late 1970s. In addition Grobman was able to attract the attention of the *St. Louis Post Dispatch* through some op-ed articles he wrote. Until that point only the old *St. Louis*

Globe Democrat seemed to know we ever existed!

The only faculty colleague hired in the late 1970s was Jim Riehl who came in September 1977. Jim had been a postdoc at the University of Virginia and had done his PhD with former UM-St. Louis chemistry faculty member Dennis J. Diestler. He replaced Bob Rouse who moved to the Computer Science Department at Washington University. Jim was a theoretical chemist with interests in circularly polarized luminescence spectroscopy.

Several colleagues took advantage of the sabbatical leave program during the late 70s. Joyce Corey returned from a semester at Princeton with Kurt Mislow in January 1975 and then Eugene R. Corey left for a calendar year sabbatical leave at Wayne State University with Milton R. Glick that same month. Gone for the academic year 1975-76 were Rudi Winter who went to ETH in Zürich, Switzerland, as a Visiting Scholar with D. Arigoni and Tom Jones who spent a semester in Groningen in the Netherlands and another in Sheffield in England. Ken Barnett was at the University of Illinois-Champaign Urbana in the lab of T. L. Brown during the 1977-78 academic year and the editor spent it at Ohio State University in the lab of S. G. Shore. He also spent the summer of 1979 there. Hal Harris spent the following year, 1978-79 at the University of Chicago with Donald H. Levy and Bob Penn spent the year at the University of California-San Diego with David O. Harris. Also during that year Dave Larsen was at the University of Kent in Canterbury in England. There were other colleagues who were not in the department full time during this period. Alan Berndt was appointed Assistant Dean of the Graduate School and Assistant Director of the Office of Research in 1975 and he held the position until 1978. When Tom Jones returned from Sabbatical leave in 1976 he was appointed Associate Dean of the College of Arts and Sciences. Tom also served as Interim Dean of the College during the academic year 1978-79.

The ever-present feature of the departmental staff was Betty Eshbaugh, Senior Secretary who had joined the department in 1963. The tragedy that occurred during that period was the loss of Bill Garrison, our electronics technician in a terrible motorcycle accident. The irony was that on the Friday evening prior to the Sunday when Bill died, we were all in the funeral home just east of the campus on Natural Bridge road, at a student Halloween Party, and on the following Tuesday we were back there for Bill's funeral. Bill's position was filled by Joe Kramer in January 1980, but that is for the next installment of this series.

Betty Eshbaugh had lots of different company in the department office in the late 1970s. Theresa Orso had replaced Linda (Ryan) Chickos in 1974 and Theresa left in 1977 to go back to college. We met her recently and she is now working at Florissant Valley Community College with students with disabilities. Also leaving the department in 1974 was Anne Baillot. She was replaced by Brenda Phillips who stayed until 1976 and in turn was replaced by Cathy Disper. In 1977 two new secretaries would join the department. These were Dietra Lott and Cheryl Warden and they would add some stability to the office for several years. In 1978 **Pat Barton** resigned as stockroom manager to go fulltime to graduate school in history and was replaced by **Ken Owens** who was still a student here and would graduate in 1980 with a BS degree.

Biochemistry had been an important feature in the department's

undergraduate offerings, essentially from the beginning. Joseph Feder, who taught biochemistry in the evenings, joined us as an adjunct professor in 1966 and taught biochemistry in the department and later in the School of Optometry until just before he retired from Monsanto in 1991 to become President and Chief Executive Officer of Invitron Corporation. He is currently Chairman of the Board of ISTO Technologies, Inc., a company he co-founded in 1997 and was President, CEO, and Chairman of the Company until 2003. Eric G. Brunngraber, who had moved to the Missouri Institute of Psychiatry from the Illinois State Psychiatric Institute in November 1975, began a very productive association with the chemistry department in November 1976 when he was appointed Adjunct Professor of Chemistry. Eric soon became much closer to the UM-St. Louis chemistry department than he was with his "home" department,



A view of the audience at the 2009 St. Louis Award Symposium held in the department. You should be able to spot from right to left Drs Bauer, Wes Harris, Holmes, Corey, O'Brien, Rath, Wilking, Demchenko, Liu and Gokel. Also visible are several alums including *Nichole Curvy BS 2009*, *Ben Martin BS 2007*, *Merci Kiiru BS 2009*, *Teresa Bandrowsky BS 2008*, *J. B. Carroll BA 2009*, *Scot Hasty BS 2008*, *Matt Lenze BS 2008*, *Todd Boehlow BS 1991, PhD 1997* and *Steve Kolodziej BA 1988, PhD 2003*, among others.

biochemistry at the University of Missouri-Columbia. He began teaching biochemistry for us and perhaps more important at that time, he began taking on research students at both the undergraduate and graduate levels. I recall his direction of the thesis of *C.W. Somawardhana* (Sam) who graduated with a Ph.D. in organic chemistry in 1982 and of the research of *Clarice Rieser* who received a BA degree in 1977.

The late 1970s, when several colleagues returned from sabbatical leaves were not good times. Both Ken Barnett and Bob Penn, frustrated with the difficulty to raise substantial research funding from the granting agencies, in spite of running highly productive programs, decided to seek opportunities in industry. Ken was the first to leave and in the middle of the 1978-79 academic year he moved to Ashland Chemical Co in Dublin, Ohio. James D. Idol, Jr, who had developed the Sohio Acrylonitrile Process had moved to Ashland and recruited Ken. Bob Penn was impressed that his sabbatical leave mentor, David O. Harris, was unable to generate funds adequate to run a high resolution spectroscopy laboratory and he left to join DuPont on May 1980, the day that the editor became department chair. At the end of the period

Dave Garin took his second sabbatical leave when he spent the 1979 – 80 academic year at the Environmental Protection Agency in Washington DC.

We have had several prominent local industrial and other chemists teach for us over the years and the period in the 1970s when we had so many colleagues on sabbatical leaves, or resigning resulted in our perhaps using as many such part-timers as we have ever done. Bob Stearns who had joined the department as an Adjunct in 1966 taught Introductory Chemistry in the evenings, on and off, for more than 30 years. He also collaborated with Al Berndt in writing a book *Dental Fluoride Chemistry*, which was published in 1978. Bob retired in 1998 and unfortunately, there were other retirements during that period so his was not given the recognition that it should have been. Of course John Gutweiler, still with us in the department, was another fixture teaching part-time for us during this period. Barry Kalman, brother of alumni *Harland Kalman BA 1968* and *Leslie Kalman BA 1970* joined us actually before Gutweiler, in August 1971, and stayed with us until 1976. One of the more significant additions to the adjunct faculty during this period was Jordan J. Bloomfield, a prominent chemist from Monsanto and also a member of the leadership of the St. Louis Section of the ACS, in 1975. Jim Chickos had collaborated on some research with Bloomfield earlier so he was well known to all of us. Three years later his colleague from Monsanto, Dennis C. Owsley joined us as an adjunct. He would stay well into the 1980s when he left to host *Bebop and Beyond* and later in 1988 host "*Jazz Unlimited*," (9 p.m.-midnight, Sundays), on KWMU, our public radio station.



Belle rive Country Club clubhouse, known as the Administration Building, served as administrative, classroom, and library space until Benton Hall was completed in 1966. The Administration Building was torn down in 1978. The area is now known as Founder's Circle and includes the green space in front of the Thomas Jefferson Library.

As the 1970s came to an end, the department had grown in stature but needed more facilities and equipment. We were still using the Varian T-60 NMR spectrometers, one obtained with University funds and the others obtained as surplus equipment from Monsanto. We had a committee that wrote NSF equipment grants and in 1978 we were successful, in part, in that the agency had been encouraging institutions in large cities to collaborate.

Thus we and our colleagues at Washington University chemistry department were funded jointly to purchase a JEOL FX-100 NMR spectrometer. The instrumentation was housed at Washington University and we shared operating costs. This was not an ideal situation for us but the deal was that we would collaborate on, and be funded for, a joint proposal for an X-Ray Diffractometer, but that story will have to wait until next year! Our lab space, especially the research space, had become inadequate for our programs but it turned out to be a long struggle to convince the "authorities" at the central administration in Columbia that we indeed needed more space. Again that story will have to wait, but Bob Murray with the help of Tom Jones began the fight which was to continue well into my term as chair.

Bob Murray's health began to become a strain on him and also he had some concerns about his family so in late 1979, he asked me if I would begin to serve as chairperson in the summer session. I naively agreed to do that not realizing that the summer was to become one of the major challenges of the position. Later on that academic year, Bob decided he had had enough and announced he was resigning as chair. Thus I became a prime candidate to succeed him and that I did on May 12 1980!

Contributors 2009

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.

CONTRIBUTIONS FROM ALUMNI AND FRIENDS 2009

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