

# UMSL CHEMIST



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Department of Chemistry and Biochemistry  
Lawrence Barton, Editor

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### Chairman's Message (Christopher D. Spilling)

The year 2005 was again a year of changes in the Department. We said goodbye to Chris Pigge who took up a new position as associate professor in the Department of Chemistry at the University of Iowa. Chris had been in the Department since August 1996 and was a very productive and well-liked colleague. We have had a great deal of success in hiring talented faculty over the last two decades. Not surprisingly, those talents are often recognized by other institutions. We were joined by a new NMR Director Rensheng Luo early in 2005. Rensheng has already had a big impact on the NMR facility and many former students and postdocs working in the region have been consulting with him and using the NMR service. We are well advanced in our search for a Director for the Center for Molecular Electronics and hope to be able to report the position

**IMPORTANT DATES:** March 6, 4:00 pm Robert W. Murray Lecture; April 7, 7:00 to 10:00 pm Chemistry Alumni Reception in the Alumni Center and May 1, 3:30 pm the Distinguished Alumni Lecture followed by a reception. Call 314-516-5311 for details. Mailings will be sent out.

filled in the next issue of the UMSL CHEMIST. We are also searching for an assistant professor of organic chemistry to replace Chris Pigge. We have several excellent candidates scheduled for interview in the New Year. There were reasonable numbers of new graduates in 2005. We added 12 bachelors, 14 Masters and 4 Ph.D.s to the ranks of the chemistry alumni.

As part of our constant effort to improve the Department facility infrastructure we were successful in winning NSF support to add a new state-of-the-art X-ray diffractometer to our diffraction suite. The Bruker Apex II kappa system was installed in the summer. We hosted an open house with a mini-symposium to showcase the new instrument. Speakers at the symposium included myself and Lol Barton from the Department here at UMSL, John Bleeke from Washington University and Chuck Campana from Bruker.



Another excellent and very enjoyable Robert W. Murray Lecture was delivered by Peter Bernath of the Department of Chemistry at the University of Waterloo in Canada. I find myself looking forward to this particular event more and more each year. The Department had additional occasion to get together and celebrate this past year. Wes Harris was won the ACS St. Louis Award for Chemistry. A very nice symposium was held in the department and the banquet and award presentation was held at Kemol's Restaurant.

Finally, thanks to all those alumni who responded to Professor Barton's appeal to contribute to a matching scholarship program. We can report spectacular success and we are most grateful to those of you who contributed. We were able to raise funds to support a total of five scholarships.

Best wishes,

## Alumni Information

### 1960s

**Thomas Jenkins** BS 1967 wrote to us chiding us for saying last year that "Dave Henton was the star student in our first graduating class" and asked what the other students were, chopped liver? He had a point, of course, all the students were very good indeed and if my memory serves me correctly, all went on to graduate school. He mentions specifically **Carole Reinhardt**, **Don Kaesser** and the late **Gary Bernstein**. Tom went to the University of Colorado in 1967 but was drafted in his second year and had to settle with a MS degree. He eventually completed his Ph.D. degree in analytical chemistry at the University of New Hampshire in 1989. He has been employed for 35 years at the US Army Corps of Engineers, Cold Regions Research Laboratory, in Hanover, NH. He encouraged me to look him up on *Google* and I discovered that his research work has centered on the development of fixed-laboratory-based and on-site analytical methods for explosives residues in soil and ground water. His research has led to the promulgation of US EPA SW846 Method 8330, the industry standard method for analysis of explosives in soil and water; Method 8515, a colorimetric method for on-site analysis of TNT in soil; and Method 8510, an on-site method for RDX and HMX in soil. He has received many awards and much recognition for his work including, for example, the Army Meritorious Civilian Service Award (2001). He has written numerous voluminous special reports on his work, which can be found by searching the web, and he is a member of the Editorial Advisory Board of *Field Analytical Chemistry and Technology*. In his letter to me he confirms that Dave Henton was the star student, from Charlie Armbruster's Chemistry 11 to Dave Garin's Advanced Organic Chemistry courses. All those students in that group went on to do very well and we enjoy hearing from them.

**Dennis Patterson** BS 1968 read the last UMSL CHEMIST with interest. We quote from his letter: "a member of one of UMSL's early graduating classes in Chemistry, and I overlapped a bit with **Dave Henton**, **Michael Finkes**, **Ray Novak**, all of whom I knew would go on to accomplished great things, if they weren't drafted and done in by Vietnam. I'm retired now (early) from Rohm and Haas Company in Philly, where I spent about 27 years in new product discovery mostly in the life sciences arena-early on in cholesterol lowering polymers for oral dosing, polymeric anti-ulcerants as adjuvants to small molecular anti-secretory agents being put on the market at the time, and later in hybrid wheat (patents and products now owned by Monsanto), then in Agricultural Chemistry (Crop Protection). This latter business was sold to Dow Chemical in 2001, and I took the opportunity to leave industry at that point, since my age and years of service made for a package that was good for me. During my years in Crop Protection I supervised the New Product Discovery group, including antifungal, herbicide and insecticide groups (each group had stand alone chemistry, biochemistry, biology subgroups), as well as the agricultural biotechnology research group. I guess at one point I was responsible for roughly 120 scientists across all disciplines in the heyday of the organization. I always thought that my

education at UMSL served me well, and one unforeseen benefit to my education was that I got to travel the world-many trips to China, Japan, Italy, France, the UK-as part of my managerial responsibilities....Anyway, now I'm volunteering some time at Lehigh University in Bethlehem, PA, at the Center for Emeritus Studies (funded mostly by Merck Foundation money) where a group of mostly retired chemists teach Chemistry, Biochemistry, Material Science majors, how their coursework gets applied to typical problems in the real world. One major thing we teach them is how to search the literature for information relevant to a particular problem of their choosing, and this turns out to be quite an eye opening experience for them".



*Students in Dr O'Brien's Instrumental Analysis Laboratory Course*

**Steven Mestamecher** BA 1969, who has had a long career with Dupont in Parkersburg, West Virginia, a position he took following a Ph.D. at Washington University, recently contacted us and enclosed an article of his on polyamides. I quote selectively from his letter to me: "Nearing the advanced stages of my career (i.e. soon considering retirement), it is always rewarding for me to obtain feedback from someone to learn how my actions had an influence on their profession, or a significant decision. Allow me to pass similar comments to you, and the UMSL Chemistry Department. I was majoring in Math until August of my senior year, when Charlie Armbruster talked to me about opportunities in Chemistry. As you can imagine, my senior year was rather full of Chemistry with multiple courses as well as six labs each semester, and teaching a lab. Three months into the semester I was encouraged to consider graduate school, which I had not previously considered. The personal attention invested into me by members of the Chemistry Department clearly changed my career and my life. Dr. Larsen was very special to me, helping me with my first research program and putting up with some mistakes! Being treated as an individual and not just a student number was what I needed at that stage of personal development. I also recall a Friday night when you and Dr. Larsen joined Ray Novak and me on the Riverfront Levy the night prior to Ray's wedding. That was a special time, and I want you to know the influence that you, Dr. Larsen, Dr Armbruster and the Chemistry Department had on me! And I am sure there are many others you may never hear from."

**Lawrence E. Payette** BS 1969 is still with Boeing and lives in Sandy, Oregon. He is planning to go to the ACS meeting in Atlanta in the spring. He tells us that he and his wife have been traveling recently. A couple of years ago they went to Great Britain and traveled around England, Scotland, Ireland and Wales and last year they were in Italy. Their youngest son just graduated from college with a degree in multimedia design and their oldest son, who has a BS degree in biology, just got his MS degree from UNLV and is now teaching there.

**James Reilly** BS 1969 now has a position teaching science at Fairview Middle School in Kansas City, an inner city school. He tells us that the pay is good and it just shows that you never know where you will end up. He and Janie live in Sedalia so the commute is a long one, and they are planning on moving to Kansas City. Jim sent us another very nice message expressing his appreciation of his former teachers at UMSL

### 1970s

**Sanford A. Asher**, BA 1971, we noted presented 3 papers at the Pittsburgh conference in Orlando, FL in March 2005 and another at the ACS meeting in Washington DC in August in a symposium *New Frontiers in Ultra sensitive Analysis*. Note the special article featuring Sandy later on. He was a 2004 Distinguished Alumni Awardee.

**Daniel Kleypas** BS 1970 was cycling on the campus with his wife and they bumped into the editor – not literally - earlier this fall! He has spent a career in radiology and is now at Mallinckrodt Institute of Radiology at Washington University. He has lived near the campus all his life after growing up in the Normandy area; he now lives in Ferguson and has done so for many years.

**Harold R. Messler** BS 1970 proudly showed off the new City of St. Louis Forensic Laboratories at their dedication by the Board of Police Commissioners on April 1, 2005. The three-story facility has 40K square feet with underground parking and the facilities include DNA labs, firearms examination, chemistry, serology and photo labs, and they are accredited by the American Society of Crime Lab Directors. Harold is a veteran criminalist with much experience. He has helped train many of our former students in the lab and they have gone on to become successful "CSI" experts.

**Robert M. Lamberg**, BS 1972 continues his ophthalmological practice at Clarkson Eyecare. Bob has several faculty members in the Department among his patients.

**W. Steven Tait**, BS 1972 was in the Department this past summer with his wife Sue **Whitworth Tait** (BA Physics 1972). They jointly own *Pair O Docs Professional, LLC*, a research consulting company that specializes in all aspects of aerosol container anti-corrosion technology. He continues to write a monthly column for the internationally distributed *Spray Technology and Marketing*. He is the Chief Science Officer and Principal Consultant for the company.

**David Armbruster**, BS 1973 is Scientific Affairs Manager at Abbott Labs in the Chicago area. He gave a lecture on Assay Standardization and Global Harmonization at the Finnish Clinical Laboratory Meeting in Helsinki in February 2005. He was named chairman of the area committee on Clinical chemistry and Toxicology of the Clinical and Laboratory Standards Institute

**Michael D. Finkes**, BS 1973, MS 1978 is now a member of the Alumni Association Board of Directors. As we mention elsewhere, Mike was instrumental in helping set up the Monsanto Endowed scholarship for students in the Biochemistry and Biochemistry degree program.

**Janet (Dobbins) Place**, BA 1974 was in touch with us earlier this year when she was in St. Louis. She works for Lifescan Inc., in Milpitas, CA, where she is a Project Manager and coordinates worldwide new product supply chain and manufacturing activities.

**Mark A. Nagy**, BS 1975, MS 2001 is at Pfizer, Inc. in St. Louis.

**Jeffrey B. Wheatley**, BS 1976 is with Pfizer Inc., in San Diego. We heard from Jeff recently after many years and had hoped to catch up with him at the ACS meeting in San Diego but unfortunately our plans made it difficult and we were unable to do so.

**Victor Granat**, BS 1977 was in contact with us recently and he told us he has a great job working for **Phil Rexroat** (BS 1977) and **Floris Homan** (BS 1985, Ph.D. 1989) at KV Pharmaceuticals. He is a Method Development Chemist in the Analytical Research Group. He wishes he had joined the corporate world a long time ago although his career in forensic science exposed him to a tremendous amount of information he routinely uses now. He and his wife own a little bar (really cold beer) in Lemay, the nicer section.



*Dr Keith Stine with his undergraduate research student Joy Duff at the UMSL Undergraduate Research Symposium.*

**Donna (Davis) Dietrick**, BS 1977 has been at Pfizer for many years now.

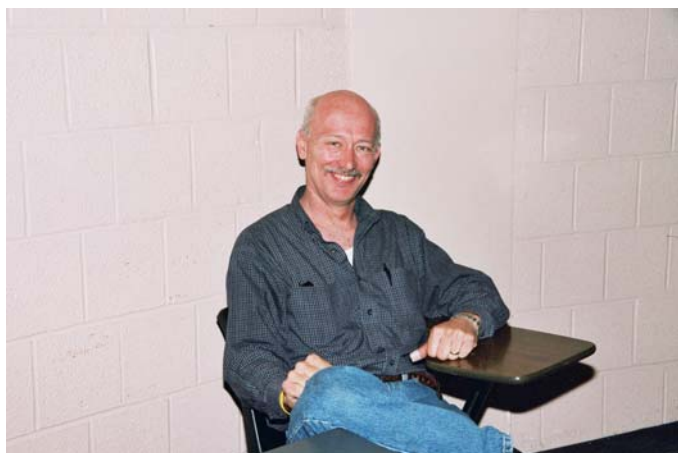
**George Limpert**, BA 1979, MS 1980 was at the Midwest

Regional meeting in Joplin in October. He is now at ABC Labs in Columbia MO and he tells us that his son George, an UMSL graduate, is in graduate school at UM-Columbia studying environmental engineering.

**Russell Moutray**, BS 1978, MS 1989 was in touch with us recently. He works for Spectrum Brands which was formerly *Chemisco* and he runs the analytical department there. He tells us he is still single, plays a mean game of tennis and two cats share his house in O'Fallon, MO. He has two Alfa Romeos, the most recent one he bought is a 1974 model with a good body and no engine so he is combining the two

### 1980s

**Normand Del Castillo**, BS 1981 continues his consultancy for World Wide Technology, Inc., in Maryland Heights, according to **Mike Hauser**, BS 1981, MS 1986.



*Ken Owens, the department scientific glassblower*



*At the Murray Lecture Banquet: Dr. Jane Miller, Dr. Bob Dixon, Chemistry Chair at SIU-Edwardsville, Dr. Don Hesse **Dr. Barbara W. Brown**, BA 1983, and Dr. Hal and Mary Harris*

**Ken Owens**, BS 1980 continues as the Scientific Glassblower in the Department. A couple of years ago he ran a glass

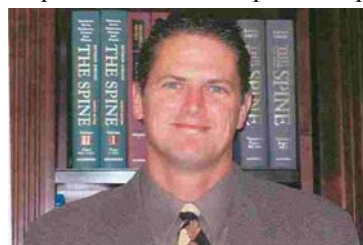
blowing course for graduate students and, of course, he regularly instructs students in the senior level Inorganic Reactions Laboratory course. Ken has some health issues at the moment but his spirits are high and he has been going about his business as usual. We all wish him a speedy recovery.

**Suzanne Saum**, BS 1982 is now on the faculty at Florissant Valley Community College. She was formerly at Lindenwood University. For a number of years, Sue has been Advertising Manager for the Chemical Bond, the publication of the St. Louis Section of the ACS.

**Donald G. Hesse** BS 1984, Ph.D 1991, informed us that on November 22, 2005 he promoted to Vice-President of Information Technology at the St. Louis Post-Dispatch. He and his wife Cyndi live in Kirkwood and have two daughters (17 and 9) and one son (14). He spends most of his free time working on the house or coaching the two youngest in various sports, such as baseball, softball, basketball and volleyball. He enjoys playing softball and tennis in the summer and basketball in the winter. Last year he dressed up as a stereotypical chemist for Halloween. The neighborhood gave him rave reviews. His younger sister teaches at St. Simon's School in South County and each year she invites him to school for a "special lecture" of the students' choosing, so he uses the same costume. The kids think it is a hoot. He is not sure how much he is helping our enrollment.

**Michael Merriman**, BS 1987 works for Applied *Biosystems* and we apologize for getting the name wrong.

**Tom Reinsel**, BS 1982 was recently in touch with us after many years. He received an MD from Washington University School of Medicine in 1986, did his internship in orthopedic surgery at Cook County Hospital in Chicago, his residency training in the department of orthopedic surgery at Northwestern Memorial Hospital. He completed spine fellowships at Rush-



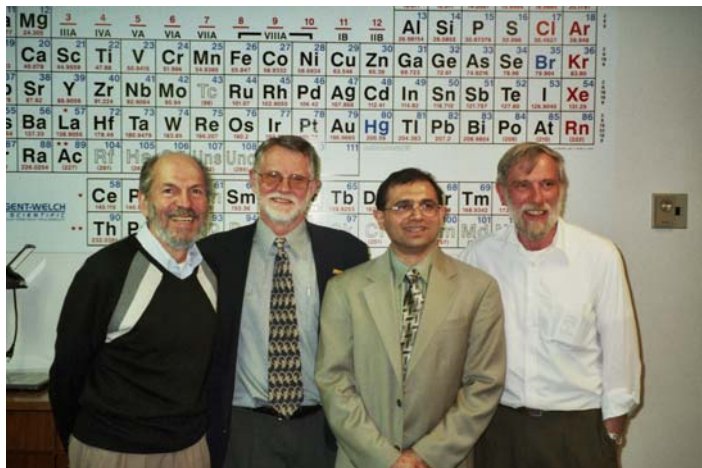
Presbyterian-St. Luke's Medical Center in Chicago and at the University of Vermont. He served as Assistant Professor in the Division of Orthopedic Surgery at the Ohio State University and as a

surgeon at the Cleveland Clinic. Since 2003 he has been back in St. Louis in solo practice at Gateway Spine, LLC and he plies his trade at Missouri Baptist, St. Joseph's and St. Luke's Hospitals.

**James Timper** BS 1982, MS 1984 was living in Irvine, CA when he contacted us in May 2005. He was employed by the FDA first in St. Louis and then in the Washington DC area. His work involved application and supervision of analytical chemistry testing of pharmaceuticals. He went to evening school and obtained a MS degree in applied mathematics from Johns Hopkins University, Wittig School of Engineering. He also spent some time at George Mason University in Fairfax VA and hopes to continue his studies in wavelet theory there after he retires from the government in 2006.

**Irene M. Drizin**, MS 1982 presented a paper at the ACS National meeting in DC on "SAR of a new series of indole and indazole ureas as TRPV1 antagonists". She has been at Abbots Labs for many years now and has had quite a productive research career in medicinal chemistry. This we discovered by looking her up on *SciFinder*.

**Angelo Vangel** BS 1983 is QC manager for Lighthouse for the Blind.



Old-timers Garin, Barton and Winter with Distinguished Alumni Lecturer Dr Rajiv Banavali

**Tiahne Zhu**, MS 1988 wrote to us that he enjoyed reading my recent letter (about the scholarship appeal) and he has many wonderful memories of UMSL which help him overcome difficulties. He and his wife Polly run an export-import business between the US and China and they also run five retail stores, *Craft Depot*, which carry floral and party supplies. He misses UMSL, and many friends including faculty and former graduate student colleagues such as **Minren Lin**.

**Dawn Shiang**, BA 1983, Ph.D. 1988 and **Bill Shiang**, BA 1984, Ph.D. 1989 appear to be enjoying themselves in 2005 on assignment in Switzerland with Dow Chemical Co. We heard about shopping in Basle, skiing in Wengen near Eiger Rock, visiting ancestral sites for Bill in China, watching the Tour de France, vacationing in Turkey and entertaining relatives in Innsbruck, Austria.

**Michael Hauser**, BS 1981, MS 1986 was recently promoted to Full Professor of Chemistry at Meramec Community College

**Suzanne (Mates) Pea**, BS 1984 now has two infants, according to **Mike Hauser**.

**Rajiv M. Banavali**, Ph.D 1985 was the 2005 *Distinguished Alumni Lecturer* and gave a most interesting presentation describing a journey beginning in a small village in India through graduate school and UM-St. Louis (Ph.D. with Bob Murray) to his current successful career at the Rohm and Haas Company in Philadelphia.

**Linda J. Hencken**, BA 1985 continues to teach chemistry and forensic science at Webster Groves High School. Her students have been involved in developing a database with the City of St. Louis Police Department and the FBI. During the summer she consults with the Alaska State Troopers Museum.



Keith Stine and senior undergraduate student Shu Yao demonstrate at Career Day in the department.

**William L. Neumann**, Ph.D 1988 has returned to Mallinckrodt-Tyco several years after he had joined the company on graduation from UM-St. Louis. Bill held a relatively senior research position with Metaphore Inc., prior to their effectively shutting down their research activity in St. Louis and spent some time working with Jim Bashkin's company *NanoVir*.

**James G. Murphy**, BA 1989, BS 1990, MS 1996 came to a graduate student seminar in October when one of his colleagues from Reliable Pharmaceuticals, Inc., James Smoot, was speaking.

**Alicia M. Beatty**, BS 1989, who received her Ph.D. degree at Washington University and had been at Kansas State University and Notre Dame University is in her second year at Mississippi State University in Starkville MS. She was an invited speaker in a symposium on Clay Minerals and spoke on *Intercalation in Hydrogen-Bonded Clay Mimics* at the Midwestern Regional Meeting of the ACS in Joplin in October. She received a PRF grant in 1994. Alicia will be the 2006 Distinguished Alumni Lecturer.

**Gary Wester**, BA 1989, MS 1992, keeps in touch with us. He lives in Lee Summit, MO – near Kansas City and works for Pfizer.

**James R. Wheatley**, BS 1989 is now with *Kereos* in St. Louis following a lengthy stay with *Metaphore*, also in St. Louis

### 1990s

**Bo Liu**, MS 1990 is at Merck Inc., near Philadelphia.

**Todd Boehlow**, BS 1991 (Ph.D. 1997) is in process discovery chemistry at Pfizer Inc., in St. Louis. He is frequently seen in

the department and plays racquetball with the department group including Jim Chickos, Chris Spilling, Wes and Hal Harris.

**Alexander J. Pitts**, BS 1992 is now living in Charles City Iowa with his wife Cindy and their 5 year old son. He works with *Cambrex* a life science company that manufactures chemicals for use in animal feed additives, human pharmaceuticals and fine chemicals. We understand he recently took a business trip to Taiwan.

**E. Thomas Keufler**, BA 1993, Ph.D. 1998 wrote to us earlier this year. Apparently we missed his earlier updates and for that we apologize. Tom had been working at *Celsis Laboratory Group* and living on his 211 acre homestead in the Ozarks near Tom Sauk Mountain. He is now self-employed and has also been taking care of his father who suffered a stroke and lives in Chesterfield. Tom's home in the Ozarks, Tip Top Ranch, was recently expanded when Tom purchased an additional 80 acres, and he has installed over 5 miles of roads and ATV trails, in addition to much fencing. We hope his property was not affected by the problem with the Tom Sauk reservoir.

**Kevin Koeller**, Ph.D. 1993 with Chris Spilling continues to work in the department for *NanoVir* with Jim Bashkin.

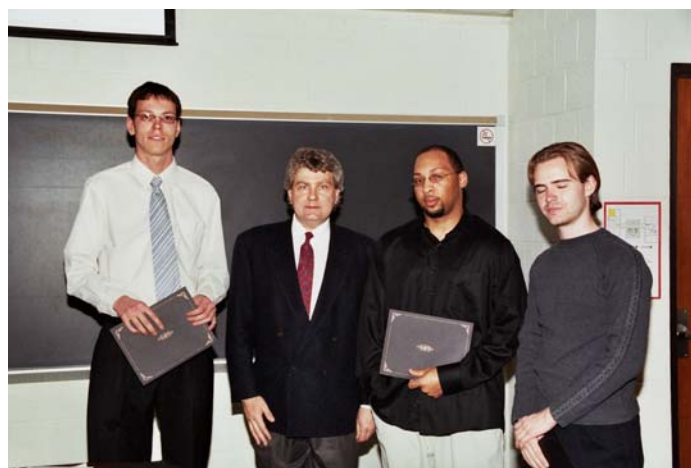
**Timothy Desmond**, BS 1994 still works American Water, now at the corporate laboratory in Belleville, IL. The company has consolidated all of the regional and local laboratories into one lab. The lab in Belleville had already been doing a lot of the regional American Water utilities analyses for all different kinds of water testing.



*Raef Shaltout, Jean Huhmann Vincent (both Ph.D. 1997), Yana Levchinsky Grimmond (BS 1997, MS 2000) and Brian Grimmond (Ph.D. 2000) all former members of the Corey-Wilking group.*

**Dennis M. Kraichely**, BA 1994 lives with his wife Dena, and two children, daughter, Madison (7), and son, Chase (4) in Pottstown PA. He is a Senior Research Scientist in the Expression Technologies group in Pharmaceutical Development at Centocor, Inc., a Johnson & Johnson Company located near

Philadelphia, PA. Dennis has expertise in a wide variety of expression systems to create and develop high-producing cell lines for the generation of monoclonal antibodies and other therapeutic proteins. In addition, he plays an active role in identifying, evaluating, and implementing innovative new technologies to support a very ambitious Research and Development pipeline. His efforts help to maintain Centocor's position as a world leader in the development of therapeutic biologics for the treatment of human diseases. Prior to joining Centocor in late 2001, he was a Molecular Biologist in Cardiovascular Discovery Research at Procter and Gamble Pharmaceuticals located in Cincinnati, OH. After graduation in 1994, he did a Ph.D. in Pharmacological and Physiological Science at Saint Louis University, and was a Post-Doctoral Fellow in the Departments of Molecular Integrative Physiology and Cell Structural Biology at the University of Illinois at Urbana-Champaign (1999-2000). Over the past decade, he has authored 16 manuscripts in peer-reviewed journals/review chapters and has presented data at 32 scientific research conferences. We took this information from a bio provided for the conference at which Dennis presented papers in St. Louis in November 2005. At that time he also visited the department and presented a seminar. He tells us that he has enjoyed teaching for a number of years, earlier at the University of Cincinnati, and now at Cabrini College in Radnor, PA.



*Dr Spilling with undergraduate award recipients Rokas Juodeska, Christopher Vaughn and Benjamin Martin*

**Hong Fang**, Ph.D. 1995 is a Senior Bioinformatician in the Division of Bioinformatics at Z-Tech Corporation, at the National Center for Toxicological Research, Food and Drug Administration in Jefferson. Hong and her husband and former postdoc for Drs D'Souza and Welsh, Weida have been working on microarray and genomic research and FDA regulatory application. They have developing a software package called ArrayTrack, which has users world wide. Weida had about 2 trips a month last year, he has been Italy, England, Germany, Korea and China. Hong and Weida really enjoy what they are doing now and they are always busy.

**Francis W. Moser III**, BA 1995 will present a paper at the

Pittsburgh conference next spring in Dallas. Frank, whose daughter **Jennifer Moser** graduated with a BS degree in chemistry in 1999, is at Mallinckrodt/Tyco Healthcare as is Jennifer.

**Brad Rowe**, BS 1995, Ph.D. 2003 is a Senior Research Chemist in Process Research Imaging at Mallinckrodt/Tyco in St. Louis.

**Michael D. Groaning**, BA 1995 MS 1997 recently contacted us with an update. He is a Senior Process Research Chemist with Roche Colorado Corporation in Boulder working on production on a chemotherapeutic that is in Phase I. He was planning on attending the Natural Products Gordon Conference in July. He continues to teach organic chemistry and with training for the *Ironman* which was this past fall and his new house, he is quite busy. Purchasing the house reflects his settling down a bit, he says. It's a great location though, just a couple miles from work with a deck on the southwest side of the house facing the mountains. It backs up to an open space area and anyone that knows Boulder, knows that it would take God himself to come here and re-zone that land. Thus his view of the mountains won't be obstructed anytime soon by new buildings or homes.

**Abdul R. Khan**, Ph.D. 1995 visited the office this past fall. He had hoped to see Dr. D'Souza and Dr. Stine but they were not there. Thus he could not make the most of his visit but he still had enjoyable time visiting with the editor. Abdul continues to work as a postdoc in Mike Welch's lab at Washington University.

**Elizabeth A. Amin**, BA 1996 (Ph.D. 2002) enjoyed reading the online version of the UMSL Chemist; but she corrected me in that after completing her Ph.D. in 2002, she and her husband Massoud relocated to the San Francisco Bay area, not San Diego. They enjoy living in the Twin Cities area which, they say, resembles St. Louis. She is at the University of Minnesota as a Research Professor and her work has been keeping her busy. She was waiting to hear about three collaborative NIH grants: designing inhibitors for eIF4E (a protein involved in cancer-related RNA transcription), modeling redox potentials in hSCAD (this one is with Marian Stankovich, Don Becker's Ph.D. supervisor) and setting up an NIH Molecular Libraries Screening Center Network node at the University of Minnesota. If funded, the MLSCN would conduct and analyze high-throughput screening of small molecules to be used as biological probes. She is collaborating with Professor Donald Truhlar on developing new software tools for metalloprotein analysis, and modifying DFT methods to model Al and Zn nanoparticles. Her newest and most exciting project is collaboration with a colleague in Physics, on modeling charged particles in the auroral region of the magnetosphere. She presented two posters at the DC ACS meeting last August.

**Yanina (Levchinsky) Grimm**, BS 1997, MS 2000, visited the department over Thanksgiving 2005 with her husband, **Brian Grimm** (Ph.D. 2000) and again in January, this time for the 2006 figure skating national championships where the

Olympic team will be named. She visited with the editor at that time. She and Brian got together with former lab partners, **Raef Shalout** (Ph.D. 1997) and **Jean (Huhmann) Vincent** (BA 1992, Ph.D. 1997) and their families. A picture is seen adjacent. Yana and Brian were not going to the UK for the holidays this year, but will go there twice next year: for the holidays and in late spring they will be going to Basel, Paris and Glasgow. Yana is enjoying her work with *Regeneron Pharmaceuticals*, doing analytical chemistry, developing and validating methods for protein formulations (so it's a mix of small molecules and proteins) and recently attended a protein aggregation conference in Philadelphia. Brian continues to work in biotech and nanotech and the projects are coming along fine – just filed another patent.

**Steve (Xiaopeng) Sang**, MS 1996 is still working at a research site of Bristol-Myers Squibb Company in Wallingford CT, as a Research Scientist. It will be his ninth year next year and he has been involved in several Oncology projects and finds his work quite interesting and challenging, but some times frustrating. He also took several courses in Computer Science and received a M.S. in Computer Science in 2004 and is planning to pursue a MBA degree in a nearby business school. Besides working and studying, he very much enjoys spending time with his family, especially with his 2 daughters, Angela (6) and Amanda (3). They all had a wonderful trip to China in this summer and the fast change in China amazed him.



*A view of the Science Complex from the north side of Bugg Lake.*

**Hossein Shabbany**, Ph.D. 1998 had been working part-time with Jim Bashkin's start-up *Nano Vir* in the Department but now is Principal Scientist with Fleming & Co Pharmaceuticals in Fenton, MO.

**Anne Cafferty-Turnbough**, Ph.D. 1998 sent a message to Vally D'Souza earlier this year. She says that things are good for her. She is traveling a lot, working away - from Houston when not traveling ! Her kids are getting big and bold – and she is now a soccer mother - who would have thought! She is training for "another" marathon and just trying to keep up with all that life brings.

**Cecilia Marzabadi**, Ph.D. 1995 with Chris Spilling, gave a seminar in the department on March 28 titled *Adventures in Glycol Chemistry: the Synthesis of bicyclic Sugar Derivatives*. We are happy to report that she received tenure and was promoted to associate professor of chemistry at Seton Hall University.

**Siu Wa Au-Yeung**, BA 1996 continues to keep in touch with us at Christmas time. He still lives in Norwood MA and has now been with a small R & D company for two years. He was married this past summer and he and his wife like their neighborhood which is convenient for Boston where she works as a systems analyst at MIT.

**Hong Yong**, MS 1996 continues as a research chemist with Abbot Laboratories. She and her husband, who also works for Abbot, live in Libertyville, IL, a northern suburb of Chicago with their six year-old daughter Allison.

**W. Michael Johnson**, BS 1999 was in to see me a couple of months ago. Mike is at *Centocor*, which is on Natural Bridge Road, near McDonnell Boulevard (Brown Road).

**Andrew Breite** B.S. 1999 is a Development Scientist at the Roche Protein Expression Group in Indianapolis. After finishing his work at UMSL in May of 1999, he completed a MS degree with Prof. Philip Low studying the role protein-protein interaction of the human erythrocyte cytoskeleton, in 2002. The transition away from organic/analytical chemistry into the world of biochemistry was very exciting to him. He enjoyed his work and had a wonderful experience meeting so many interesting people in graduate school. In August of 2002, he began working



*Murray Lecturer Professor Peter Bernath chats with Dr. Demchenko, graduate student Mehda Kamat and Dr. Cristina DeMeo at the reception. Drs. Stine and Wes Harris are in the background.*

for Roche Diagnostics Corp. in Indianapolis, IN, however, the first 5 months of his assignment was in Roche's Berkeley, CA facility. In December of 2002 he returned permanently to Roche in Indianapolis, where he currently resides. He is involved in

development projects to bring recombinant proteins of therapeutic interest to the market for drug discovery and structural studies and enjoys being a part of the entire development spectrum, including molecular biology, protein expression and purification, assay development, and most recently his work on utilizing mass spectrometry to study the phosphorylation state of proteins. When we heard from him he was working on applying for admission into the Indiana University Kelley School of Business. He speaks very fondly of his time in the chemistry department here.

**D. Anthony Young**, MS 1999 presented the seminar "Materials Science applications in Pharmaceuticals" in the department in February 2005. He is at Pfizer in St. Louis.

### 2000s

**Aaron Burns**, BS 2000 is a graduate student in chemistry at the University of Minnesota –Twin Cities. He was in touch with us recently.

**Melissa Stuechel Brereton**, BS 2000, a graduate student in biochemistry at the University of Utah, was in the department last June. She was considering possibilities for her post-graduate student activities. She was married last year to Todd Brereton and we provide a picture. The editor sees her father-in-law occasionally socially and they usually talk about the couple and ice hockey!



**Luis Llamas**, MS 2001 with Chris Spilling, worked in Pharmacia before Pfizer took over and then he joined in 2003 Athersys Inc. in Cleveland OH, as a Research Associate, working in the Medicinal Chemistry Department. In November 2005 he joined Novartis Institutes for Biomedical Research as part of the Lead Synthesis and Chemogenetics Group, where they work on small molecule synthesis and design to find new targets. This is very challenging and exciting for him.

**Paul McQuade**, Ph.D. 2001 tells us that the big news of layoffs at Merck, where he works, has not affected him. He is in the imaging group and his department had just hired a new radiochemist from Washington University where Paul was a post doc following his Ph.D. research with Dr. Barton. His work is quite similar to his postdoc work, except for the industrial setting which he says took a time to get used to – especially the 10 days per year vacation! He co-authored five articles in 2005 including two in *Nuclear Medicine and Biology*, one in the *Journal of Medicinal Chemistry*, one in *Current Medicinal Chemistry*, all from his postdoc work, and one in *Inorganica Chimica Acta* from his doctoral work. He is planning to visit



Scotland in July and also to attend the "Technetium in Chemistry and Nuclear Medicine" meeting in September in Bressanone, Italy. His wife Jen was promoted to a 'Master Teacher' teaching Medical Assistants in a Philadelphia Center City trade school, something she enjoys more than working as a hospital nurse.

**Swati Puri**, Ph.D. 2001 was in touch at the end of 2005. She moved to the Bay area in June to start working at MDL as a Senior Technical Support Specialist in the Customer Support team. She is enjoying her work and exploring the Bay area!

**Axia Sun**, MS 2000 came to see me in October. She was employed by a biotechnology company in San Diego but is now with *Lexicon Genetics* in Houston as an Associate Scientist specializing in drug metabolism and pharmacy. The company employs 700 people in New Jersey and Houston

**Marjorie (Nutt) Case**, BS 2001 is in the MS degree program and continues to work for Severn Trent Laboratories in St. Louis.

**Linyong Mao**, Ph.D. 2001 with Keith Stine, followed this with a M.S. in Chemical Informatics from Indiana University. He is now a Systems Programmer at the Medical University of South Carolina in Charleston. He works on human/mouse microarray data analysis and human DNA-binding motif discovery.

**Shiyue Fang**, Ph.D. 2001 was in touch with us recently. He is an Assistant Professor of Chemistry at Michigan Technological University in Houghton, MI. Previously he had been a postdoctoral fellow at Purdue University

**Kristy Marie (Judkins) Baker**, MS 2002 is working for Mallinckrodt/Tyco Healthcare in St. Louis. Her work supports the synthetic chemists.

**Qingzheng Wang**, Ph.D. 2001 informed us in November that he had just moved to California to take a new position in organic chemistry at AnaSpec Inc., a biotech company and had found a home in the San Jose area. He was previously at the Argonne National Laboratory where he received this year's R&D 100 award in September.

**Joe Ocheskey**, BS (MS 2003) is with PTI in Exton PA making fluorescent dyes. He was in town over the Thanksgiving holiday and came into the department.

**Amie Beerman**, BS 2002, MS 2004 was in touch with us last year after she and a friend had just completed the Appalachian Trail! She was working as a sales representative for Kolorgraphics, a silk screen printer based out of Decorah, IA; however she was still here in St. Louis and eventually she hopes to work in a chemical sales position in St. Louis. She was reading a really great book and would recommend it to anyone - *The Ecology of Commerce* by Paul Hawken. She thinks we as chemists can appreciate what he has to say.

**Mesfin Janka**, Ph.D. 2003 recently had exciting news to share with us. He received an offer from Eastman Chemicals in

Kingsport, Tennessee! He was thankful for the very strong recommendation letters from the Editor, Dr. Anderson and Rich Eisenberg, his postdoc advisor at the University of Rochester. Of course those letters were very well-deserved! He was scheduled to start at the end of November. His research was going well and he was writing two communications, one for *Inorganic Chemistry* and another one hopefully to be published in *JACS*. Previously he and Eisenberg had published an invited full paper in *Tetrahedron*.

**Padma Nair**, Ph.D. 2003 has been a postdoctoral fellow working in the laboratory of Professor Victor Hruby at the University of Arizona in Tucson. Padma and her husband, former Bill Welsh postdoc Anil Nair who is with Sanofi-Aventis, have a two-year old son Pranav.

**John C. Sommers** BA 2003 (BA Biology 1983) who also is completing his BS degrees in both chemistry and biology is a medical technician at the St. Louis City Water Company in Creve Coeur.



Senior undergraduate students Joe Van Artsdalen, Lindsay Mangum and James Banto at the UM-St. Louis Undergraduate Research symposium

**John J. Coniglio**, Ph.D. 2004 is teaching chemistry at Logan Chiropractic College.

**Steven Lichtenberg**, BS 2004 is working for Celcis Laboratories in St. Louis. We hear that he was married recently to Tracy Hopkins, BS Biology 2003.

**Joseph Lupo**, BS 2003 is at Mallinckrodt/Tyco Healthcare and he was in touch with us recently with a question for our glassblower **Ken Owens** BS 1982.

**Anchalee (Thanavaro) Trankler**, Ph.D. 2003 continues to work at Steris in St. Louis. She started as a postdoc but now she is a permanent employee.

**Kristina (Alderman) Thompson**, BA 2005, was married in the summer of 2005 and is now working at *Spectrum Brands* in St. Louis and will be returning to complete a MS here next fall.

**Anyu He**, Ph.D. 2005 completed his degree with Dr. spilling in August and is now a postdoctoral fellow with R. J. Falck at the University of Texas, Southwestern Medical Center in Dallas.

**Bingli Yan**, Ph.D. 2005 was in touch with us recently to report that she was enjoying her postdoctoral work at the University of Pittsburgh with Professor Kay Brummond. She began there in June 2005 and her first project involved studying Diels-Alder reactions of trienes. She was collaborating with a graduate student in the group, but we hear now that she has a new project, her own!

### Feature Articles

#### The Estate of John J. Taylor BA 1979 establishes two Endowed Scholarships

During the Endowed Scholarship appeal in the early spring we heard that Allison Mueller, daughter of the late **John J. Taylor**, BA 1979, was establishing two scholarships in her father's name. Allison and her husband Dr. Rolf Mueller, Chair of the Foreign Languages and Literature Department, met with the Editor and Michele Rutledge, Development Officer for the College of Arts and Sciences, to discuss the scholarships. To the old-timers in the department, John was almost a legend as an evening student who truly persevered over many years to complete his degree in the Evening College and also to do it with pretty good grades. John was very supportive of the department over the years and very proud of his chemistry degree. John spent his career at Mallinckrodt and was well-known to his former colleagues there as an excellent chemist and employee. Former Director of Research at Mallinckrodt, George B. Vermont, says that John was an excellent organic chemist who was able to use his long history of working at the plant in scaling up processes from the bench top to the plant. He worked in the areas of synthetic drugs, analgesics and generic drugs. George also says that John was one of the better players on the department softball team. We recall seeing John at some Founders' Day Banquets, with other Mallinckrodt colleagues at the Mallinckrodt table.

#### Sandy Asher BA 1970 is honored by the American Association for Clinical Chemistry

We cite from the press release:  
ORLANDO, FLA., July 24 2005 - At its annual meeting, the American Association for Clinical Chemistry (AACC) presented one of its major annual awards to Sanford A. Asher, Ph.D., of Pittsburgh. He was presented the *Sigi Ziering Award* for an Outstanding Contribution for a Publication in the Journal *Clinical Chemistry* for a paper on a new material that has potential for use in such glucose-sensing applications as ocular inserts or diagnostic contact lenses for patients with diabetes mellitus. The material could be used in a noninvasive technique for monitoring glucose levels in tears. Dr. Asher is professor of chemistry at the University of Pittsburgh and adjunct professor

of chemistry at Carnegie Mellon University in Pittsburgh. He has served as the co-director of the Materials Research Center of the University of Pittsburgh. He is scientific founder of the startup company, Glucose Sensing Technologies, and is on the scientific advisory boards of BioTools and Crystalplex. Dr. Asher's research group develops new optical devices and chemical sensing devices from self-assembling colloidal particles. His winning article, "Photonic Crystal Glucose-Sensing Material for Noninvasive Monitoring of Glucose in Tear Fluid," published in *Clinical Chemistry*, describes a new material that consists of a crystalline colloidal array embedded within a polymer network of a polyacrylamide(ethylene glycol) hydrogel with pendent phenylboronic acid groups. His research has also involved the development of new materials and new spectroscopic techniques. His group developed ultraviolet



*John J. Taylor BA 1989 and his wife Roselyn.*

resonance Raman spectroscopy as a new technique for fundamental and applied structural and trace studies of molecules in complex matrices. The award, sponsored by Diagnostics Products Corporation (DPC), includes a \$5,000 honorarium.

### Graduates, Dec. 2004 through Dec. 2005

#### MAY 2005

Kristina Alderman, BA  
Lori Bowen, Ph.D.  
Patrick Fitzgerald, BS  
Medha Kamat, MS  
Michael Justin Petetit, BS  
MS  
Blake Rowe, MS  
Nikolina Tueth, BA  
Bingli Yan, Ph.D.

Robert Barron, BA  
Daniel A. Coleman, III MS  
Rashmi Kaithavalappil, MS  
Tim A. S. Marzan, MS  
Papapida Pornsuriyasak,  
MS  
Heather Tallent, BS  
Larry Wiseman, BA  
Hui Zhao, MS

#### AUGUST 2005

Brett Cothran, BA  
Joy Duff, BA

Robert C. Dennett, BA  
Anyu He, Ph.D.

Rachel Hercules, MS  
Joseph Van Artsdalen, BS  
Shu Yao, BS

Tuan Quang Le, BS  
Peng Xiong, Ph.D.

### DECEMBER 2005

James T. Banto, BS  
Alison Lauf, BA  
Greg Papadacos, MS  
Janice Wildrick, BA

Jesse Elgin, BA  
Lindsay Mangum, BS  
James D. Simpson, BA

**The UMSL Chemistry Club** has been very active over the past year with tours of the Anheuser-Busch Research Labs and Washington University Genome Sequencing Center. Club activities over the past 12 months include hosting a Sigma-Aldrich recruiter, manning a table in the Millennium Walkway for National Chemistry Week, participating in the Oct '05 Homecoming parade, volunteering at the St. Louis Science Center, and co-sponsoring a Heifer Project Halloween Party. The Faculty Advisor is Professor Mike Nichols

### Chancellor Thomas F. George's Message

I want to thank the Editor for offering me this space to report in some of the outstanding happenings at UMSL this fall – namely



an increase in enrollment and the landing of the Express Scripts Inc. headquarters. Total enrollment at UMSL topped 15,600 students this fall. The number of new freshmen and transfer students was up nearly 14% to 2,450. Beyond the general impression that UMSL provides students with an exception education,

we're crediting a \$3.2 million increase in financial aid for much of this recruiting success. The financial aid came from \$1.5 million in campus funds and \$850,000 in donations matched dollar-to-dollar by the UM Board of Curators to endow 57 scholarships. Express Scripts Inc., the second largest company in Missouri, announced that it would build a new headquarters in the business, technology and research park that UMSL is developing along Interstate 70 between Hanley and Florissant roads. The new 330,000-square-foot facility will house more than 1,200 employees when opened in spring of 2007. The ESI project will provide our students with direct access to internships and job opportunities and our faculty to research partners. It also will anchor other development projects in this area that will enhance the campus and the communities that surround it. Enrollment and ESI are just two among many

promising developments that have my colleagues and me excited about the future at your alma mater.

### The Faculty

**Lawrence Barton** is settling into a new role in the department now that his research program has essentially ended. He had an undergraduate student working in the lab this year but will not be taking any more students. He is still writing and presenting papers and will finally get around, seriously, to writing the book on boron chemistry that he promised to write in the late 1990s. This year he has already published three research articles and gave research presentations at the XII International Conference on Boron Chemistry in Sendai, Japan, at the ACS National Meeting in Washington DC, at the Midwest Regional Meeting in Joplin MO, at a special symposium honoring the 75<sup>th</sup> Birthday of Professor Sheldon Shore at Ohio State University, and a seminar at the University of Minnesota-Duluth in December as a guest of former colleague, Jim Riehl, who is Dean of Science and Engineering there. The search for a Director of the Center for Molecular Electronics was unsuccessful last year so he continues to chair the search committee and also to be very active in UMSL campus affairs. A particularly satisfying activity was the scholarship appeal to chemistry alumni that was so successful earlier this year. He continues to be very active in the ACS and his membership on the Council Committee on Committees has turned out to be a lot of work but is interesting and appealing. On a personal level, he and his wife Pat, who retired earlier this year, traveled to the UK to see family and to Las Cruces to see daughter Hilary and her family. They also traveled to Louisville, as they do annually for Pat's birthday, where she lived for a couple of years in the late 90s and where they had some very happy times together. And yes, his golf handicap hovered in the 16 – 18 range all season ending at 16!



*The large group of students which attended the ACS Career Day on campus last spring.*

**James S. Chickos'** continues his torrid pace of publishing. In 2005 he had at least 8 articles appear. One of his students, Bill Hanshaw, is finishing up and two others are working in his lab. He also continues to collaborate with colleagues all over the

world and still find time to play a mean game of racquetball. He was seen at a Christmas Party this year wearing formal dress – and were hoping to include a picture but we shall have to wait until next year.

**Joyce Y. Corey** took on the role of Director of Graduate Studies when Dr. Pigge left and it has kept her busy along with teaching and continuing her research program. She has a master's student in her lab, **Sho Yao** BS August 2005 and she



Jane Miller, Joyce Corey and Janet Wilking at the Annual ACS Women's Luncheon

collaborates with Janet Braddock-Wilking's group. During the year they published an article in *Organometallics* and presented papers at the ACS meeting in San Diego and also at the 57th Southeast/61st Southwest Joint Regional Meeting of the American Chemical Society, Memphis

**Valerian T. D'Souza's** last graduate student **Jyothi Swami**, who is now with Meridian Medical Technologies in St. Louis, was awarded her Ph.D. in 2004 and since then he has decided to shift his emphasis to teaching – for the time being. Currently he is focusing on teaching freshman chemistry and hopes to introduce new teaching techniques into this class. He has also been busy chairing the Senate Informational Technology Committee, helping with the department web site and working with Dr. Barton on external and alumni relations. On a personal note, he got his ear pierced and is showing all the signs of going through a mid-life crises or going completely mad – so he says!

**Alexei Demchenko**, now in his fifth year in the department, continues his strong research program in synthetic carbohydrate chemistry. In 2005 these efforts resulted in 10 research publications and invited contributions appearing in *Journal of Carbohydrate Chemistry*, *Organic Letters*, *Letters in Organic Chemistry*, *Angewandte Chemie*, *European Journal of Organic Chemistry*, and *Tetrahedron: Asymmetry*. In 2005, he delivered 4 invited lectures at other universities and international symposia, including the 229th ACS Meeting and the Gordon Research Conference on Carbohydrates. His research has been supported by the ACS Petroleum Research Fund and an UMSL Research Award. In 2005 he received a CAREER award from the National Science Foundation for his project “Stereocontrolled synthesis of 1,2-cis glycosides” and a grant from the American Heart Association for his project “Synthesis and evaluation of novel lipid-A derivatives”. He has served on the Campus Spring Panel of the Faculty Senate Committee on Research and on a site visit review panel for the Laboratory of

Developmental and Molecular Immunity, National Institute of Child Health and Human Development. He organized a symposium, “Frontiers in Modern Carbohydrate Chemistry” as a part of the program of the ACS Carbohydrate Chemistry Division at the 229th ACS National Meeting. Based on this symposium, Professor Demchenko edited a Symposium Series book with 20 contributions from renowned scientists in the field. In 2005, members of his laboratory, “Glycoworld”, delivered 10 posters at the 18th UM Organic Day and the 229th ACS National Meeting. Currently, the core of Glycoworld consists of a post-doctoral assistant Dr. Haisheng Wang and six Ph.D. students, Mr. James Smoot, Ms. Medha Kamat, Ms. Papapida (Ning) Pornsuriyasak, Mrs. Archana Ramakrishnan, Ms. Aileen Bongat, and Ms. Laurel Mydock, successfully working toward their doctorate degrees. Undergraduate researchers, Ms. Nicole Lubanowsky, Mr. James Banto, Ms. Laurel Mydock, Mr. Sergey Sedinkin, and Mr. Eugene Redekop, are also acknowledged for their efforts and valuable contribution to the overall success of Glycoworld in 2005. Ex-postdoctoral fellow, Dr. Umesh Gangadharmath, accepted a post-doctoral position at the University of California–Los Angeles. Ex-Master's student Mr. Jamin Graham has been accepted into Medical School at Kansas City University of Medicine and Biosciences. Updated information on current research, teaching, and outreach activity of Glycoworld is always available at:

<http://www.umsl.edu/chemistry/faculty/demchenko.htm>.

**Cynthia Dupureur** was able to write and publish some NMR studies as her first single author paper in *Biochemistry*, this past year. She also gave lectures at UM Columbia and the University of Delaware, and attended an Enzyme Mechanisms meeting in California in January, the International Conference on Bioinorganic Chemistry in Ann Arbor Michigan in August (which Dr. Wes Harris also attended). Most recently she attended the Gibbs Conference on Biothermodynamics in Carbondale, IL. In July she visited Yellowstone National Park at the encouragement of Dr. Wilking. In addition to exercising her photography hobby on the animals and scenery, she enjoyed learning about the chemistry that takes place in thermal features. Dr. Dupureur continues as chair of graduate recruiting and admissions. Graduate student **Lori Bowen** graduated this year and is currently a postdoctoral fellow at Oklahoma Health Science Center in Oklahoma City. Postdoc Shabir Qureshi flew to Austin Texas in January to attend an Enzyme Kinetics Workshop. This year graduate students Greg Papadakos and Fuqian Xie attended their first meeting, the Midwest Enzyme Conference in Chicago, IL. The Sears Tower was a highlight.

**Thomas F. George** is involved in theoretical studies of nanostructures (including molecular clusters and nanotubes), lasers, nonlinear optics, polymers and correspondences between quantum and classical mechanics. He maintains active collaborations with scientists at various universities throughout the USA as well as countries overseas such as China, Finland, Hungary, Korea and Romania. He is the lead principal investigator for a grant (2004-07) from the U.S. Army Research Office for studies of self-assembling organic nanostructures,

where his co-PIs are experimentalists at the University of Illinois at Chicago and Argonne National Laboratory, and a theorist at Indiana State University. He also has a grant (2003-06) from the National Science Foundation for research on ultrafast phase changes in semiconductors in collaboration with scientists from Hungary and the University of Wisconsin–Stevens Point. He recently finished a project funded by a grant from the National Science Foundation, for which he was a co-PI along with scientists at Rose-Hulman Institute of Technology, Indiana State University and the University of Wisconsin–Stevens Point, for the development of a sophomore-level course in nanoscience. In addition to publishing regularly in chemistry and physics journals such as the *Journal of Physical Chemistry*, *Physical Review Letters*, *Physical Review* and *Applied Physics Letters* (averaging a paper per month), he has co-authored a book with Romanian and Hungarian scientists entitled *Microcomputer Modeling of Growth Processes of Single-Crystal Sheets and Fibers* to be published by Nova Science Publishers, and he is finishing a co-edited book entitled *Molecular Building Blocks for Nanotechnology: From Diamondoids to Nanoscale Materials and Applications* to be published by Springer. In 2005 he delivered lectures on his research at the following institutions: University of Arkansas, University of Missouri–Rolla, University of Szeged (Hungary), Korea



At the Murray Lecture Banquet, from left to right, Dr. Leah O'Brien, Pat Barton, Dr. Jim Chickos, Linda Snider, Dr. Chung Wong and Dr. Cindy Dupureur

Advanced Institute of Science and Technology (Daejeon, Korea), Nanjing University (China), Fudan University (China) and Saint. Louis University.

**Harold H. Harris** During 2005, Hal Harris has been running a "Professional Development" project for elementary science teachers from the St. Louis Public Schools, Pattonville Schools, and Wellston Schools. With collaborators Professors Charles Granger (Biology) and Wendy Saul (Literacy Education), the goal of the project is to teach science through "inquiry" methods that involve lots of reading and writing. The work is funded by federal monies administered by the Missouri Department of

Higher Education. It ties in nicely with Hal's continuing interest in science books. He still publishes the Chemical Education Resource Shelf which includes "Hal's Picks of the Month" online (<http://www.umsl.edu/~chemist/books>), and the annual Buyer's Guide for the *Journal of Chemical Education*. His "Cost Effective Teacher" is a continuing feature of the printed *Journal*, for which he also regularly reviews books.



Wes Harris receives the 2005 St. Louis Award of the ACS from Section Chair Ted Gast.

**Wesley R. Harris** went to the National ACS meeting in San Diego in March to attend a Symposium in honor of his Ph.D. advisor at Texas A & M University, Dr. Arthur Martell, who had recently passed away. He enjoyed seeing several old friends from the Martell group, and he really likes San Diego. The highlight of the year was receiving the ACS Award in April. It was enough to get his teenage son to put on a tie and come to the dinner. The dinner was very nice, except for the stress of giving a talk to a more general audience. He appreciates the effort that the Editor put into preparing the nomination. In August, he and wife Marion traveled to Ann Arbor for the International Conference on Bioinorganic Chemistry at the University of Michigan. Three students (Peng Xiong, Rashmi Kaithavalappil, and Sujittra Srisung) presented posters. This was Peng's last meeting as a member of his group. Peng received his Ph.D. in August and is now a postdoc with Brian Hoffman at Northwestern University. In September, he heard from one of his former Ph.D. students, **Anne (Cafferty) Turnbough** (Ph.D. 1998). She is the Regulatory Affairs Manager for Novozymes Biologicals Inc. She lives in Houston and had been busy dodging hurricanes, but she could not resist the temptation to send him a photo of an Aggie bookstore in College Station that had prepared for the hurricane by putting up plywood on the inside their plate glass windows. He actually received about 4 copies of the same photo from different people who wanted to make fun of his Aggie connections. In November he attended the Southeast Regional ACS meeting in Memphis. In addition to the meeting, he enjoyed some live music on Beal Street, but discovered that he cannot stay up as late as Dr. Chickos. He was able to visit with a former Ph.D. student, **Yahia Hamada**, Ph.D 1999, who had recently moved from Wayne State College in Nebraska to

LeMoyn-Owen College in Memphis. He has been doing quite a bit of research with undergraduates. He gave talks at both the San Diego and Memphis ACS meetings this year, and had a paper appear in *Synthesis and Reactivity in Inorganic, Metal-Organic, and Nano-Metal Chemistry*.

**Rensheng Luo** joined the department from St Jude Children's Research Hospital in January 2005 as Director of the Nuclear Magnetic Resonance facility. He received his Ph.D. degree from the Chinese Academy of Sciences. He was a Postdoctoral Fellow at the University of Illinois at Champaign-Urbana. He is responsible for handling lab administration, maintaining the spectrometers, assisting users with the setup of NMR experiments, and training new users to operate the spectrometers. Dr. Luo's research interests involve the use of NMR spectroscopy for generating three-dimensional structural and dynamical information on biological macromolecules and organometallic complexes. NMR is being increasingly applied in chemistry, biochemistry, biology, medicine, physics and materials science. Dr. Luo's interests also include collaboration with scientists in solving problems on all these and related subjects using NMR spectroscopy, as well as development of techniques and implementation of new NMR experiments for users at different areas.

**Michael Nichols**, who joined the department in 2004, is continuing his work on the biophysics of protein assembly and the biological implications of cellular exposure to large macromolecules. Mike is utilizing the UMSL Scanned Tip Lab for atomic force microscope imaging and maintaining cell cultures for studying cell signaling events. The current group consists of three doctoral and one master's student. Four undergraduates have also trained in the Nichols Lab during the past year. In 2005, Mike gave seminars at UM-Rolla and UM-Columbia and published 3 papers from his previous work at the Mayo Clinic. Mike was recently awarded a UM Research Board Grant for 2006.

**James J. O'Brien** provided most of the photographs for this volume. He continues to run his research program in intracavity laser spectroscopy with the assistance of a postdoctoral fellow, Dr. Shaji Sadasivan. He was instrumental in our having Professor Peter Bernath as the 2005 Robert W. Murray Lecturer and was very helpful during the visit.

**Nigam P. Rath** has been busy learning the advanced features of the newly acquired single crystal x-ray diffraction system. An open house and a symposium were held to officially announce the installation of the new diffractometer. The two diffractometer and teaching keep him well occupied. With the 2<sup>nd</sup> instrument in place we are adding hands on experience in crystallography for our undergraduate and graduate students. The older SMART system is using copper radiation and is used for organic species and for system for which absolute configuration is required. The new system used Mo radiation and is used for all other samples. In 2005

**Christopher D. Spilling** is in his second year as chair. He has been known to say that it is like having two jobs. There has

been a large turnover of personnel in the Spilling research group. Two postdoctoral associates, Sampathkumar Ellappan and Praveen Kommana moved on to new adventures, the former is a postdoc at UMKC and the latter is at Marquette University in Milwaukee with Bill Donaldson, and two Ph.D. students, Bingli Yan and Anyu He graduated leaving, with addition of Donnie Smith, a group of five Ph.D. students. The group was extremely active in presenting its work. A combination of posters and oral presentation were given at the ACS National Meeting in San Diego, Missouri Organic Day in Columbia, the ACS Midwest Regional Meeting in Joplin and the combined ACS Southeast/Southwest Regional Meeting in Memphis. Spilling attended the Reactions and Processes Gordon Research Conference where he was able to catch up with former group member Martin Hayes. Martin recently graduated with a PhD from MIT. Spilling also recently had a whirlwind lecture tour of the UK giving three lectures and attending one symposium in 9 days. The lectures included visits to Sunderland where former postdoc Jon Harburn is a senior lecturer and Sheffield where former colleague Lee Brammer is a Reader. He also gave lecture at the x-ray open house (17<sup>th</sup> Aug) and SIUE in the fall.



*Joe Ackermann, Washington University Chemistry Chair and his wife Brenda, Chris Spilling and his wife Cathy with Professor Bernath.*

**Keith Stine** is continuing his research in the area of monolayers working in the past year with new Ph.D. student Barry Walker, and M.S. degree students **Frank Dover** (BS 2002) and **Rachel Hercules** (BA 2002, MS 2005). The main current project concerns the interaction of glycoalkaloids, which are found in many plants, with model membrane systems. A project studying the behavior of some triaroylbenzene derivatives provided by former colleague Chris Pigge is also being pursued. In May, he attended a celebration of the 70<sup>th</sup> birthday of his postdoctoral advisor, Professor Charles M. Knobler of UCLA, and presented a talk on the above mentioned projects at an all-day symposium honoring Dr. Knobler. The symposium was followed by a banquet attended by close to 100 people including many former students and postdocs of Dr. Knobler as well as UCLA faculty and associates. In April, he attended Missouri Organic Chemistry Day and presented a poster on the research project on monolayers of triaroylbenzene derivatives in which M.S. degree

student Frank Dover and former UM-St. Louis Ph.D. student Mayuri Dighe also participated. In October, he attended the Midwest Regional ACS meeting in Joplin, Missouri and graduate student Barry Walker presented a talk on their recent research in which M.S. degree student Rachel Hercules and undergraduate Joy Duff also participated last year. During 2005, he completed his fourth year as Secretary of the Saint Louis Section of the ACS and assisted Dr. O'Brien with the ACS Chemistry Career Day event by presenting a talk on areas of chemistry and a short set of chemical demonstrations.

**Janet Braddock-Wilking** is now in her second year as a regular tenure-track Assistant Professor. Her research program is going well and she has given several talks on it recently. These include an oral presentation at 229<sup>th</sup> National ACS Meeting in San Diego in March, an invited lecture at 38<sup>th</sup> Silicon symposium in UC-Boulder in June when her two graduate students and her postdoc also gave poster presentations and an oral presentation at the 14<sup>th</sup> International Silicon Symposium in Wurzburg Germany in August. Her postdoc Yan Zhang joined her group in September 2004. She received a Missouri Research Board grant during the year. This semester she taught what was once Chemistry 12, now 1121.



*Dean Mark Burkholder with Charlie Armbruster in Orlando last*

**Chung F. Wong** has started traveling a bit after his first year of teaching at UMSL. He gave talks at the Midwest Computational Structural Biology Workshop, a meeting

focusing on Protein Kinase Targets in Boston, UM-Kansas City, Truman State University, and UM-Columbia. He also received a Missouri Research Award to help develop two methods for mining drug candidates for protein kinases. In summer 2005, Dr. Mingliang Wang joined his group as a postdoctoral fellow. He and his collaborators published four papers during 2005.

**Zhi Xu** and **Dr. Larsen** are moving forward quickly in implementing their new spectroscopic technology.

### Former Faculty and Staff Colleagues

**Gordon K. Anderson** continues to enjoy his work as Dean of Arts and Sciences at East Tennessee State University. He and his family enjoy the smaller town atmosphere of Johnson City. Despite his science background, Gordon finds himself dealing extensively with the arts, bluegrass music, and museums. On top of his administrative duties he taught a General Chemistry course during fall 2005 and, earlier than he had planned, will do so again in spring 2006.

**Charlie Armbruster** still lives in Orlando but recently moved from his house to a condominium downtown. He also has sold his beachfront property on the Florida east coast. We had a nice chat recently and earlier this past fall Dean Mark Burkholder and Development Officer Michele Rutledge visited him (see picture). He would enjoy hearing from former students and may be reached at [armbruster@umsl.edu](mailto:armbruster@umsl.edu).

**James P. Riehl** continues as Dean of Science and Engineering and McKnight Presidential Leadership Chair at the University of Minnesota-Duluth. The Editor gave a seminar at UMD in December and Jim was proud to show off the new Chemistry/Biology building which had the formal opening in September. He travels quite a lot, either fundraising for his



*A billboard along I-35 in Minnesota promoting the University of Minnesota-Duluth and showing a picture of Jim Riehl.*

College or giving research talks. This fall he received "Gold Medal of the University of Wroclaw" in Poland. He enjoys playing golf with sons Patrick and Jimmy, when they are home,

and he tells us he had his first ever eagle recently on a par 5! He holed in a sand wedge from about 50 yards!



Dr. Rajiv Banavali with his wife Marysusan and Dr. Barton

**David L. Garin** is still bicycling and serving as President of the Board of the UMSL Retirees Association. He went to two islands recently, bicycling on Prince Edward Island, Canada, and sunning and swimming on Rhodes, Greece. Dave still participates in the St. Louis ACS and hopes to see local alumni at some of those events.

**Lisa Hoguet** who worked in the department office from 1993 – 1999 and eventually became Betty Eshbaugh's replacement as senior person in the office keeps in touch with us. She and husband Dan and children Jay and Tara moved to Wentzville, MO last year. Dan spent some time in Mississippi 30 minutes away from New Orleans helping FEMA with the Katrina relief efforts. Dan is a fireman and paramedic and certainly was needed down there.

**Randa Schneider** contacted us this Christmas holiday. Randa was a secretary and word processor in the department office from June 1981 – Dec. 1999 and left to move to Quincy, IL with her husband Mike who had accepted a new position. After some job changes Mike has been very busy lately running the counseling center at Quincy University, holding a part time job with a nursing home in Jacksonville and running a private practice. The latter is moving to a new location and Randa is going to work with him as an assistant in the new office submitting papers for insurance companies and doing his billing. She is looking forward to helping him.

**Robert W. Murray** comes into the department occasionally. The Editor and his wife Pat had lunch a couple of times with Bob and Claire recently. Bob's former postdoc Ramasubbu Jeyraman (RJ) recently informed us that the article: Murray, R. W.; Jeyraman, R.. "Dioxiranes: synthesis and reactions of methyl dioxiranes" *Journal of Organic Chemistry* (1985),

50(16), 2847-53, was the 38<sup>th</sup> most cited ACS article in 2004. Since most of the highly cited articles are in fact review articles in *Accounts of Chemical Research* or *Chemical Reviews*, and are naturally more often cited, this is very significant. When we looked up the data we discovered that an article by **Michael D. Ennis** (BS 1978) and David A. Evans was the 57<sup>th</sup> most cited article during the same period. The work was done when Mike was a postdoc with Evans at Caltech.

**Rudolph E. K. Winter** continues his active retirement, coming in at least four days per week to help run the Mass Spectrometry Facility and do research. He still collaborates with colleagues in the department and co-published an article with Dr. Barton this past year. He was collaborating with colleagues in the Entomology Department at UM-Columbia and now is collaborating with new colleagues from the Columbia campus from the Department of Biomedical Sciences in the School of Veterinary Medicine. He also has a new collaboration with Professor Robert Marquis in our biology department. This year he has co-authored articles in *Inorganica Chimica Acta*, *Environmental Entomology* and the *Journal of Phytochemistry*. On the personal front, he and Margaret now have four grandchildren and enjoy occasional visits to see three of them in Sarasota FL. At a recent seminar on LC-TOF mass spectrometry, sponsored by *Agilent*, Rudi met a group of former students including **Suzanne Baszis** BS 1977 who is at Monsanto, **Dwight Holman** BA 1994 who was at Mallinckrodt/Tyco, **Amy Trankler** Ph.D. 2004, who is at Steris, **John Sommers** BA 2003, who is with the Water Company and **Hongping Ye** Ph.D 1992 who is with the FDA Lab in St. Louis.



Dave Garin chats with Wes Harris and Rajiv Banavali at the year-end reception

## Adjunct Faculty

**Jim Bashkin** continues to run his research program in the Department. This past year he published "Synthesis and evaluation of RNA transesterification efficiency using stereospecific serinol-terpyridine conjugates" in *Nucleosides*



*Nucleotides Nucleic Acids* with W. C. Putnam and he also presented a poster at the National ACS meeting with **Kevin Koeller** and Chris Fisher (his Kalamazoo colleague). Alumnus **Kevin Koeller** (Ph.D. 1993) still works in Jim's lab in the department and both **Hossain Shabbany** (Ph.D. 1998) and **Bill Neumann** (Ph.D. 1988) spent some time in the lab during the past year.

**Joseph Dence** has recently returned to some of his primeval roots by teaching organic chemistry, both semester courses, in addition to physical chemistry and his usual assignment of Introductory Chemistry II. With respect to the latter, his nearly completed Laboratory manual "Experiments for Introductory Chemistry II" has finally seen the light of day, and will be used next semester. On the side, he is continuing work on his latest book, "Advanced Calculus: A Transition to Analysis". Six of the seven projected chapters are in draft form, and the first three of these are now nearing completion of revisions. His colleague (in spirit) and long-time friend, former Chemistry Department faculty member Dennis Diestler and he still have hopes of collaborating on a graduate-level statistical mechanics text, but neither of them seem to be able to find the time to get started on it. He advises us, however, to try Dirac!

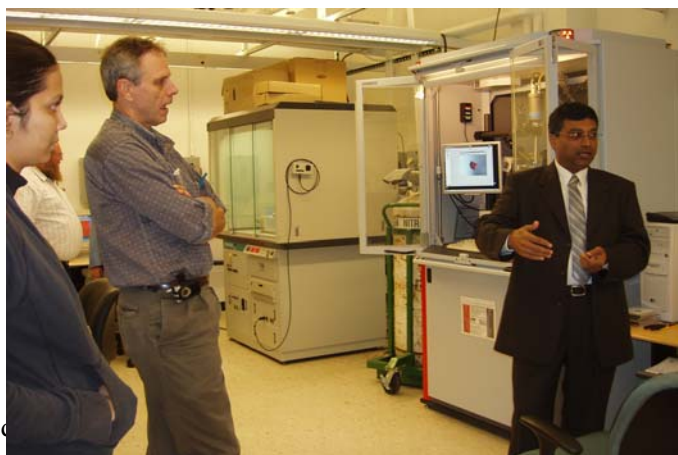
**John L. Gutweiler** is approaching 45 years with the department and he still juggles a schedule involving teaching at Logan College of chiropractic and UM-St. Louis.

**Tony Mannino** has been teaching organic chemistry in the department now, in the evenings, for about seven years. This fall, Tony who is with Mallinckrodt/Tyco Healthcare, gave a seminar in the department titled "What's in a Pill".

**Robert Orth** has taken on additional teaching recently. He is a regular teaching physical chemistry courses and also now is involved in both instrumental analysis and specialized courses in mass spectrometry.

### X-ray Crystallography Laboratory Open House

Recently, we were awarded funding from the National Science Foundation for the purchase of a new single crystal



Dr. Rath at the X-ray Diffraction Facility Open House.

commercially available state-of-the art diffraction systems the Bruker Kappa Apex II diffractometer with the Oxford Cryostreams low temperature device was selected for purchase. The instrument was formally commissioned with a symposium and open house which was held on August 17<sup>th</sup>, 2005, inaugurated by Chancellor Thomas George. Professors Barton and Spilling were speakers from UMSL and Professor Bleeke from Washington University and Dr. Campana from Bruker gave presentations on the use of single crystal x-ray diffraction. The symposium was attended by researchers from all the universities in the St. Louis metropolitan area as well as from Southern Illinois. There was a good representation from the local chemical industry as well.

### The Robert W. Murray Lectureship



This departmental function continues to be the major event of the visiting speaker program and it enters its ninth year in 2006. We have been able to host some very distinguished chemists and again the past year was no exception. The speaker was Dr. Peter F. Bernath, Professor of Chemistry and Physics at the Guelph-Waterloo Center for Graduate Work in Chemistry and Biochemistry who spoke on Atmospheric Chemistry Experiment (ACE):

Spectroscopy from Orbit. Professor Bernath (who is shown here) is the doctoral advisor of Dr. Leah O'Brien of SIU-Edwardsville and the other half of the O'Brien and O'Brien research collaboration. This year Fredric M. Menger, *Charles Howard Candler Professor of Organic Chemistry* at Emory University, will give the Ninth Annual Robert W. Murray Lecture on Monday, March 6, 2005.



Dr Spilling with 2005 John L. Coombs Award recipient Deepa Ajit.

### 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 now provides a stipend of \$1,000. The 2005-2006 recipient is **Jonathon Laughlin**.



*Dr. Spilling introduces Murray Lecturer Dr. Peter Bernath*

### The M. Thomas Jones Memorial Fund

This Fellowship 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 has made substantial contributions to allow us initially to endow it and very recently to improve it. Currently it is used to fund an annual award for the top graduate student seminar. The graduate students vote on this award and in 2004 the award went to **Papapida Pornsuriyasak** and **Anyu He**. If you are interested in supporting graduate students, you are certainly welcome to designate your contribution to this fund.

### 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 2005-2006 fellowship went to **Lindsay Mangum**. 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 recently endowed by the family of the late Dr. Eric G. Brunngraber, supports undergraduate research. If you are interested in supporting this important aspect of the

department's activities, you may designate your contributions to this fund.

### The William and Erma Cooke Memorial Scholarship

This, the major endowed award in the Department, is designed primarily for sophomores. Dorothy and Al Greco endowed it in honor of Dorothy's parents William and Erma Cooke. **Dorothy (Cooke) Greco** received her BS degree in chemistry and **Alfred O. Greco** graduated with a degree in biology, both in 1971 and both went on to medical school and are now physicians. The Fellowship had provided support for two students annually now since 1992. In 2004 we were able to award three fellowships and they went to **Chris Vaughn**, **Rokas Juodeska**, and **Benjamin Martin**.



*Dr. Spilling with M. Thomas Jones Fellowship recipients Papapida Pornsuriyasak and Anyu He*

### ST. LOUIS AWARD SYMPOSIUM

This spectacular event, sponsored by the St. Louis Section of the American Chemical Society and the University of Missouri-St. Louis, held in honor of the 2005 recipient, **Professor Wesley R. Harris**, took place on Friday April 22, 2:00 – 5:00 pm in room B451, Benton Hall. It began with a welcome and general introductions by Ted Gast, Chairman of the ACS St. Louis Section. The editor introduced Dr. Harris who served as the Symposium moderator. Wes made some general remarks and then proceeded to introduce the speakers. They were **Alvin L. Crumbliss**, Professor of Chemistry at Duke University, who spoke on "How a bacterial transferrin transports iron.", **Michael J. Welch**, Director, Division of Radiological Sciences at the Washington University School of Medicine, who spoke on "Radioactive metal complexes as imaging agents" and **Kenneth N. Raymond**, Professor of Chemistry at the University of California-Berkeley, who spoke on "From macrocycles to megacycles: nanoscale, chiral flasks". The event was completed very nicely with a reception hosted by Chancellor Thomas F. George and his wife Dr. Barbara Harbach. About 50 attended the symposium and about 30 the

reception. On the following evening at the Banquet at Kemoll's Restaurant, Wes was formally presented with the award which consisted of a plaque and an honorarium of \$1,500.

Wes is the eighth UM-St. Louis faculty member to win the award. The others are Bob Murray in 1972, Tom Jones in 1983, Joyce Corey in 1985, Lol Barton in 1991, Jim Riehl in 1992, Bill Welsh in 1998 and Gordon Anderson in 2000.

## Departmental Awards for 2003-2004

### Undergraduate

The award for the *Outstanding Student in Introductory Chemistry* went to **Christopher Jost**, and **Megan Alberts**. They 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 **Rokas Juodeska** and the *American Chemical Society Award for Analytical Chemistry* went to **Patrick Fitzgerald** 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 **Chloe Bryant**. The award was presented at the annual Awards Night during the ACS St. Louis Section's Chemical Progress Week. **Shu Yao** received the *Alan F. Berndt Outstanding Senior Award* and the *American Institute of Chemists-Student Award Certificate*. *William and Erma Cooke Scholarships* for 2003-04 went to **Chris Vaughn, Rokas Juodeska**, and **Benjamin Martin**. The *2004 Undergraduate Chemistry Aid to Education Awards* were awarded to **Chloe Bryant, Harley Tigner, Don Butler, Mike Lantzy, Oscar Natwick, Yoon Young Chung, Jesse Meinhardt, Emily Beck, Jean Hochgesang, Kevin Gafney** and **Benjamin Martin**. The 2005-06 *Barbara Willis Brown Scholarship for Women in Chemistry* went to **Lindsay Mangum**, the 2005-06 *Eric G. Brunngraber Undergraduate Research Fellowship* went to **Rachel Andrews** and the 2005-06 *Lawrence Barton Scholarship* went to **Jonathon Laughlin**. A *Certificate of Commendation for Outstanding Service* went to **Rokas Juodeska** and **Brett Cothran** and *Outstanding Undergraduate Teaching Assistant Awards* went to **Brett**



A view along West Drive as it passes the west end of the Science Complex where the Center for Molecular Electronics is located.

**Cothran and Shu Yao.**

### Graduate

The 2005-06 *M. Thomas Jones Memorial Fellowships* went to **Papapida Pornsuriyasak** and **Anyu He**. The 2004-05 *Graduate Student Research Award* went to **Papapida Pornsuriyasak**. A *Commendation for Excellent Performance by a Teaching Assistant* was awarded to **Lisa French** and the 2004-05 *Graduate Teaching Assistant Award in Memory of Jack Coombs* was awarded to **Deepa Ajit**

### Alumni

**Dr. Ranjiv M. Banavali Ph.D. 2004**, presented the 2005 *Distinguished Alumni Lecture* on Monday May 2. Rajiv is with the Rohm and Haas Co. His topic was "**To and from St. Louis: A Chemist's Journey**". Rajiv recounted his life from a small village in India, through college and then graduate school with Robert Murray at UM-St. Louis, thence to a postdoctoral fellowship with Paul Bartlett at Texas Christian University and on to a very successful career at Rohm and Haas, first in Houston and then in Philadelphia. He began his career with Rohm and Haas in Houston in 1987 as a process chemist. In 1992 he became the Manager of the R&D for Primene amines. In 2000, he took on the additional responsibilities for the Dyes and Markers businesses and moved to Philadelphia with the company in 2001. The following year he became the global R&D director for the Inorganic Specialties business in addition to his previous responsibilities. In 2004, he was named the Global research manager for Organic Specialties and Ion Exchange resin catalysis. Rajiv has been awarded 10 patents and is an author of over 25 publications. Rajiv met his wife Marysusan when she was a student here and taking Chemistry

Our Distinguished Alumnae Lecturer next year will be **Dr. Alicia M. Beatty** who is Assistant Professor of Chemistry at Mississippi State University. She received a B.S. in chemistry in 1989 from the University of Missouri - St. Louis, being selected as the *Outstanding Senior Chemistry Major*, and a Ph.D. from Washington University in St. Louis in 1994, where she studied organometallic synthetic chemistry. After a post-doctoral appointment as the departmental small molecule X-ray crystallographer at her graduate institution, she moved to Kansas State University to continue work in crystallography and to conduct research in supramolecular chemistry and crystal engineering. From 2000 until joining the faculty at Mississippi State in 2003, she was a Research Associate Professor at the University of Notre Dame.

### Editor's Message (Lawrence Barton)

This message cannot begin without a huge thanks to those of you who responded so generously to my appeal for contributions to the matching scholarship program. We can report spectacular success and we are most grateful to those of you who contributed. We were able to raise two units of

\$15,000, each of which was matched with an additional \$15,000. We thus can now offer two endowed scholarships in the amount of \$30,000, to be used to attract and support entering students, either freshmen or transfers, into the department. That is not all! We are also delighted to report receipt of funds to support an additional two scholarships from the estate of the late **John Taylor**, BA 1979. John was a graduate of the Evening College and persevered for many years to complete his degree while working full time and raising a family. John was very supportive of the Department over the years and a feature appears on page 10. In addition to this, with the help of **Michael Finkes**, BS 1973, MS 1978, a fifth scholarship was possible through a generous contribution from the Monsanto Fund. This scholarship will support students enrolled in the BS in Biochemistry and Biotechnology program that was established recently as a collaborative venture with the Department of Biology. This means that there will be an additional five scholarships of at least \$1,500 per year available to award to students in the Department. We are delighted to be able to announce this and wish to thank our alumni friends and faculty members who contributed to this effort. A wonderful side-benefit from this initiative was that we heard from a number of former students with whom we had lost touch - folks we have not heard from for so long. Their names are listed elsewhere in this newsletter but here I mention some, including **Tom Reinsel**, BS 1982; **Jeff Wheatley**, BS 1976; **Russ Moutray**, BS 1978, MS 1989; **Xiao-hong Zhu**, Ph.D. 1992; and **Tiahne (Tim) Zhu**, MS 1987.

The search for a new Director for the Center for Molecular Electronics continues. I have been heavily involved in this effort and we had hoped to announce that the search was over – but alas it is not. I was involved in successfully nominating Wes Harris for the ACS St. Louis Section Award and elsewhere I report on the excellent Symposium and Banquet that was held in honor of Wes. I also had hoped to announce, finally, the establishment of our new Alumni Advisory Board, but that has not happened either. You can read elsewhere about other matters that have been occupying my time. Chris Spilling is now in the middle of his second year as Chair and it has gone very well. As the third Brit in succession to chair the Department, he needs to stay here at least long enough so we can hire another Brit to take his place - just kidding!

I heard personally from some of our very early graduates this past year. **Tom Jenkins**, BS 1967, and I exchanged messages recently; **Larry Payette** BS 1969 called one recent Saturday afternoon when I was in the office; **Dennis Patterson**, BS 1968, sent us a nice long message earlier this year; **Steve Mestamacher** BA 1969 continues to keep in touch with us, and **Jim Reilly**, BS 1969, bless his heart, sent me another very complimentary message.

I return to the funding issue. As you will read later on, we have established a Chemistry Department Endowment Fund. I realize that this is the wrong time of the year to be asking for money, but I hope you will consider making a contribution, however modest, to your alma mater. The experts tell us that on

average 15% of alumni of colleges and universities in the U.S. make such contributions. At UM-St. Louis only 5% do that and for the Chemistry Department 13% contribute. These are not good numbers and we wonder why we are not doing better. We would be interested in hearing your views on this. Of course I must not discount the many chemistry alums who do contribute generously on a regular basis and for that we are extremely grateful. Anyway, it would be nice to see the UM-St. Louis and particularly the chemistry numbers rise to at least the national average. This year we established the Department of Chemistry and Biochemistry Endowment Fund, with funding from alumni and friends and this attests to the generosity of many of you and for that we are extremely grateful.

It was interesting to read the "Book of Lists – 2005" published by the *St. Louis Business Journal*. A section deals with alumni of colleges and universities and the numbers residing in the St. Louis metropolitan area. UM-St. Louis clearly does not have the largest number of alumni; that statistic belongs to the older institutions. Washington University has about 250K alumni, UM-Columbia has 246K, Saint Louis University 123K, SIU-Edwardsville 79K and UM-St. Louis 65K. However by far the largest percentage, and even the actual numbers of alumni from UM-St. Louis reside in this area. The numbers are: UM-St. Louis 45K, Saint Louis University 43K, SIU-Edwardsville 38K, UM-Columbia 36K and Washington University 34K. These are impressive numbers for UM-St. Louis and it is hard to see why our political clout in the region is not greater!

We have some events coming up during the Spring Semester. First there will be the Robert W. Murray Lecture on March 7 when Professor Fred Menger, *Charles Howard Candler Professor of Organic Chemistry* at Emory University, will be our speaker. The lecture, as usual, will be followed by a reception and we hope to see many of you at both events. We are having an Alumni Reception this year and that will be held on April 7 – details to follow. Finally, as I always say at the end of my message, this might be an appropriate time for you to visit the campus again. Both campus and the Department continue to change and we would be delighted to show you around. Please keep in touch and provide us with information about your career and achievements in your personal lives.



### Contributors 2005

Below we list all the individuals, chemistry alumni and friends of the department who made contributions to the department this past year. The list is very impressive and we are most grateful for your support. We have done our best to assure that the listing is up-to-date. If we missed out your name, we apologize and hope you understand that we are fallible. Recent gifts will be listed next year. We have not included industrial matching funds or other such gifts because that list is more difficult to assemble.

## CONTRIBUTIONS FROM ALUMNI AND FRIENDS 2005

Mr. and Mrs. Ronald E. Ackerman  
 Drs. S. Massoud and Elizabeth A. Amin  
 Dr. David and Ms. Pat Armbruster  
 Dr. and Mrs. Phillip V. Asaro  
 Mr. and Mrs. Michael C. Auinbauh  
 Dr. and Mrs. Rajiv M. Banavali  
 Dr. and Mrs. Lawrence Barton  
 Ms. Dorothea M. Bean  
 Dr. Alicia M. Beatty  
 Mr. Wayne R. and Dr. Debora F. Bergstrom  
 Dr. Todd R. Boehlow  
 Mr. and Mrs. Ronald Bonnell  
 Mr. and Mrs. Paul D. Bostick  
 Dr. and Mrs. Gregory R. Bradburn  
 Dr. Barbara W. Brown  
 Dr. Edward H. Brunngraber and Ms. Szmuszkovicz  
 Mr. and Mrs. Eric H. Brunngraber  
 Mrs. Lois M. Brunngraber  
 Mr. and Mrs. Joseph W. Bulock  
 Mr. and Mrs. Dennis K. Clapper  
 Mr. Kevin R. Criscione  
 Daus Communications  
 Dr. and Mrs. Dennis M. Delfert  
 Mr. and Mrs. Michael B. Dietrich  
 Dr. and Mrs. Charles M. Drain  
 Dr. Shiyue Fang  
 Mr. and Mrs. Michael J. Finkes  
 Ms. Elizabeth D. Galie  
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 Dr. Gary A. Nichols and Dr. Fatemeh Ghasedi  
 Mr. and Mrs. Joseph M. Gorman  
 Mr. Ellen C. Higham and Dr. Jack D. Hammer  
 Mr. and Mrs. Michael A. Hauser  
 Dr. and Mrs. Daniel R. Henton  
 Dr. and Mrs. David E. Henton  
 Dr. and Mrs. Donald G. Hesse  
 Mr. and Mrs. Daniel A. Hoguet  
 Dr. Sedigheh Hosseini  
 Mr. Raymond and Dr. Virginia Hauserman  
 Dr. and Mrs. Thomas F. Jenkins Jr.  
 Mr. and Mrs. W. Michael Johnson  
 Mrs. Patricia L. Jones  
 Dr. Colleen B. Jonsson  
 Mr. Larry A. Justice and Ms. Janet M. Fischer  
 Mr. and Mrs. Siddharth G. Kamath  
 Ms. Shari M. Keith  
 Mr. and Mrs. John W. Koenig  
 Dr. and Mrs. John R. Kolb  
 Mr. Shuguang Wu and Ms. Bo Liu  
 Dr. Brian Grimmond and Ms. Yana Levchinsky- Grimmond

Dr. Scott A. Long and Ms. Nicole A. Ballard-Long  
 Dr. Rensheng Luo  
 Mr. Michael C. Merriman  
 Dr. and Mrs. Steve A. Mestemacher  
 Monsanto Fund  
 Mr. Russell W. Moutray  
 Dr. and Mrs. Rolf Mueller  
 Mrs. and Mr. Joanne M. Murphy  
 Dr. and Mrs. Robert W. Murray  
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 Dr. and Mrs. Karl W. Seper  
 Sigma-Aldrich Corporation  
 Mr. Daniel P. Heberer and Ms. Emilie G. Smith-Heberer  
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 Mr. and Mrs. Richard C. Wisneski  
 Dr. Bingli Yan  
 Dr. Xiao-Hong Zhu  
 Dr. Henghu Zhu  
 Mr. and Mrs. Tianhe Zhu

**Acknowledgments.**

I wish to thank Professor Jim O'Brien for taking most of the photographs, Professor Vally D'Souza for help with the formatting, the Graphics and Printing and Services Office for being so cooperative over the years and to **Patricia J. Barton**, BA 1978, for proof reading and correcting the material. Finally thanks to all those of you who have expressed your thanks for my doing this. That is what makes it all so well worth while !



*A view of the pools and fountains adjacent to the Millennium Student Center and also of the bridge linking the MSC to Lucas*

## The Campus

As you can see in the photo above, the UM-St. Louis campus has undergone some dynamic changes; there are more changes to come. The pools just south of the Millennium Student Center were part of the campus master plan, and their installation was completed last fall. The area, known as The Plaza, will undergo further development. A third pool will be installed and a statue of former state Sen. P. Wayne Goode will be installed in The Plaza's center. The 7-foot, 6-inch statue, created by nationally renowned master sculptor Jay Hall Carpenter, will honor the legislator who in 1963 introduced the bill in the Missouri House of Representatives that established the St. Louis campus of the University of Missouri. Goode is an avid cyclist. He and his wife, Jane, enjoy biking, both here in St. Louis and abroad. One part of the new developments on campus is a series of three biking trails that come together at The Plaza. One trail has been established along the old Norfolk Southern Railroad right of way. It goes about two miles into Ferguson, and will eventually go all the way to St. Louis Community College at Florissant Valley. Of the other two trails, one will go to St. Charles and the other to Forest Park. Two new buildings are planned for the areas to the east and southeast of the MSC. The College of Education, including a general-use classroom building, will occupy the site of the former Garage C, to the southeast, and a Wellness Center is on the drawing board for the site of the old Garage D, directly east. Radio station KWMU, the campus' National Public Radio affiliate, has plans for a new site of its own near the proposed new campus entrance off Florissant Road. Express Scripts Inc., one of the nation's leading managers of pharmacy benefit plans, has agreed to move to the UM-St. Louis campus, with its new headquarters scheduled to open in March 2007. ESI's move will necessitate the building of new access roads, moving the baseball field and other developments that remain in the brainstorming stage. Phase one of this plan is expected to accommodate 1,500 ESI employees with possible expansion. The ESI project is the first step in the development of a Research/Technology Park along I-70 on UM-St. Louis property. Another new development is the construction of the first residence hall to be built on the campus. Prior to this, students were housed on campus either in the University Meadows apartments or in property purchased from the Daughters of Charity on the south campus. The new 130,000-square-foot facility will contain 431 beds and associated amenities and will require the construction of a new parking garage, which is scheduled to start this year. Of course, all these projects are tied in with the university's desire to offer new and exciting educational programs and a dynamic educational setting. If you haven't been to the campus recently, I encourage you to visit and see these new developments for yourself.

**UM-St. Louis Chemistry Alumni Fund**

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

Designation for funds:

Chemistry Department Endowment Fund \_\_\_\_\_  
 Robert W. Murray Lectureship \_\_\_\_\_  
 E.G. Brunngraber Fellowship (undergraduate research) \_\_\_\_\_  
 Lawrence Barton Scholarship \_\_\_\_\_  
 M. Thomas Jones Memorial Fund (graduate student support) \_\_\_\_\_  
 Barbara Willis Brown Women in Chemistry Scholarship \_\_\_\_\_  
 Undergraduate \_\_\_\_\_  
 Graduate \_\_\_\_\_  
 Unrestricted \_\_\_\_\_  
 Contact me; I have ideas for a new scholarship/fellowship or other fund \_\_\_\_\_  
 I have included the University in my estate plan \_\_\_\_\_

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

Professor Lawrence Barton  
 Department of Chemistry and Biochemistry  
 University of Missouri-St. Louis  
 St. Louis, MO 63121

**INFORMATION UPDATE 2005**

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

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

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

Employer: \_\_\_\_\_

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

Recent Activities: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Other News: \_\_\_\_\_  
 \_\_\_\_\_

News of other alumni: \_\_\_\_\_  
 \_\_\_\_\_