

# UMSL CHEMIST



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## Chairman's Message (Gordon K. Anderson)

It seems a little strange to be writing this, after so many years of reading a column written by Lol Barton, founder and continuing editor of the UMSL Chemist. At this time last year, he described some of the significant changes that had occurred in the department during his 18-year tenure as chairman, so I will focus on the last year. For me, of course, one of the changes during the past year has been moving from a nice, quiet office overlooking the lake, to a larger one overlooking Parking Lot Q and with a lot more responsibilities associated with it. There were many things about the department that I took for granted and assumed someone would take care of, and now I find I am that "someone".

*Dr. Anderson serves as Master of Ceremonies at the reception for Dr. Barton*

We have seen and are continuing to see changes in faculty and staff. Charlie Armbruster left for a new home in Florida at the end of last summer. His many contributions to the department and the campus were recognized at a very nice reception last August. Many former students, of course, remember Charlie for his teaching of introductory and organic chemistry, and during 1998-99 "his" teaching responsibilities were assumed very successfully on a one-year basis by former student Dee Lange (Bianca). Dee has now moved back to California with her husband. As Charlie left, we welcomed Donald Becker to the department. Don is our first true biochemist, and joins Vally D'Souza, Wes Harris and Bill Welsh to make up our newly formed biochemistry division. Don's first year has seen him develop and teach upper level biochemistry courses, establish his research laboratory and direct the research of one graduate student and one undergraduate.

David Garin was on leave during 1998-99, but he decided to take early retirement as of March 1, 1999. He will continue as Associate Professor Emeritus and, indeed, he will begin teaching Chemistry 262 next week as part of our summer offerings. He will also teach Chemistry 11 and an organic course each semester

during the academic year for each of the next three years. Effectively, he will assume the teaching role filled for a number of years by Charlie Armbruster (and most recently by Dee Lange). He plans to incorporate a workshop format as part of these courses; you will hear about the success (we hope) of this approach next time.

At the end of this summer Robert Murray will also retire, although in his case also we expect that he will continue to be an active member of the department. After September 1 his official title will be Curators' Professor Emeritus, and he will continue his research activities within the department. Although Bob Murray is not really "replaceable", we expect to search for a replacement for his position during 1999-2000. We anticipate hiring someone at the full professor level, something we have not done during my time here.

The department office looks a little different, with new carpeting and paint. We've seen some change in the office staff too. Randa prefers to maintain the  $\frac{3}{4}$  time schedule she adopted over a year ago but it has been hard to keep to that schedule this summer because Lisa, our administrative secretary, was on maternity leave. Lisa and her husband Dan were blessed with a 9-lb. 9-oz baby girl, Tara Ann, on May 16. She returned at the end of July, and shortly after that realized that she could not balance caring for two children and continuing her studies so she regretfully will be resigning, effective August 31. The third member of the office staff, Joann Jolly, graduated in May and left. Her replacement, Glenda Gillespie, joined the department after Memorial Day, and she has fitted in well. Glenda was married recently and moved here from Terre Haute, Indiana, where she had worked previously at Indiana State University and Rose-Hulman Institute. Donna Kramer graduated with a BA degree in

*Dr. Armbruster accepts commemorative plaque from Chancellor Touhill at the reception held in honor of his 35 years of outstanding service to the University.*

Chemistry in May. Donna does an outstanding job running our department storeroom, and she is looking forward to taking on further responsibilities. These will include the installation of

chemical inventory and tracking software this summer. With this in place, we will be in a much better position to share chemicals and, in time, reduce the amounts of waste materials. She will also help coordinate the laboratory activities in Chemistry 11 this fall.

Our new mass spectrometer, a JEOL M Station, was installed recently. We remodeled the mass spectrometry lab in anticipation of its delivery. We now have an impressive facility in the basement of the Research Wing consisting of three instruments. Rudi Winter and Joe Kramer spend much of their time down there "playing" with their new toy. This latest acquisition will mean that Joe spends most of his time on mass spectrometry-related activities, so a larger share of the electronics matters will fall to Gordon Kerschmann. We also received news recently that we will receive funding from the National Science Foundation to upgrade our Varian XL-300 NMR spectrometer. The XL-300 was our first superconducting NMR instrument; it was installed in early 1986 and was the workhorse instrument for several years before we expanded the NMR facility.

On February 26 we held a reception at the Alumni Center to recognize Lol Barton's 18 years as chairman of the Chemistry Department. The event was very well attended by students and alumni, as well as many colleagues from across the campus. Around the same time we established the Lawrence Barton Scholarship and, as I write this, we are only a few dollars short of the \$10,000 needed to endow the scholarship. The interest from the endowment will be awarded, beginning in Fall 2000, to a junior chemistry major. Professor Christopher Foote from UCLA presented the second annual Robert W. Murray lecture in April, and during his presentation he made some very nice remarks about Dr. Murray. His lecture was followed by a reception at the Alumni Center.

The above has focused on people, quite appropriately because it is really people who make up the department, but some other changes have taken place this past year. We have changed the departmental committee structure, and substantially revised our graduate course offerings. Perhaps most significantly, we have begun to offer a second track within the B.S. degree program. Students may now opt to follow the traditional track or the new biochemistry track, in which a number of biochemistry courses is substituted for upper level courses in other areas. We expect the latter will prove to be a popular option. Next year we look forward to the start of the much-needed renovation of the teaching laboratories in Benton Hall.

I think my first academic year as chairman has passed without too many problems and now that I "know the ropes" I am looking forward to the next. I am not setting my sights on 18 years, though!

### **Editor's Message (Lawrence Barton)**

This represents the first issue to be published during the new regime in the department. I agreed to continue writing it when our new chair Gordon Anderson asked me to do so; it is a job that gives me much pleasure. There can be nothing more satisfying for a teacher than noting the successes of former students and keeping in touch with them such that they can be regarded as friends. That being said, it is only possible to do this if the former students maintain contact - so I urge all of you to let us know how you are doing.

My personal transition from chair to professor of chemistry was not easy. I thought I would have so much more time available, but that didn't seem to be the case this past year. Of course the assumption of a full time teaching load, while continuing an active research program and carrying out the many typical faculty administrative and advising assignments tends to keep one very busy. What has been most satisfying, however, is to see the department continue to progress and to be pointed in essentially the same direction as it was during my terms as chair.

Many of the details of campus news, etc. are found in the Chairman's message so I will not repeat them. Suffice to say that the changing of the guard in the Chair's Office is the first of many shifts that will take place during the next few years. As Gordon points out, two "old-timers", Bob Murray and Dave Garin, will have retired by the end of the 1998-99 academic year and, by the early part of the next millenium, five others will be in their sixties.

The nature of the facilities has changed much in recent years and we hope to see the teaching laboratories undergo renovation in the near future. In the meantime, the number of graduates steadily grows. During the upcoming academic year we will see our one-thousandth bachelor's degree chemist graduate and shortly thereafter we will see our one-hundredth Ph.D. recipient graduate.

Many of you have reached very important positions in your chosen careers and it has been so pleasing to hear of the many honors and successes achieved by UM-St. Louis chemistry graduates. We need to hear about these, so please keep us informed of your activities. Also if you feel inclined to become more active in alumni affairs, please let me know. The usual information update form is to be found at the end of this newsletter. Please take a few moments to complete it and return it to us.

Please regard UMSL as home and visit us. We will be happy to show you the new facilities. I would also like to take a moment to thank those who wrote the letters that were read at the reception for me given last February. I will write to all of you separately but I want to make this public acknowledgment. Finally I wish you all the very best in your personal lives and careers.

*Dr Garin with Outstanding Junior Awardee Jonathan Stayton and Dr. Francis Botts, ACS St. Louis Section Chair, at the ACS Awards Night Ceremony.*

**Alumni Information**

1968

**Dr. Ray Novak** BS, is still the Director of the Institute of Chemical Toxicology at Wayne State University and founding director of the Wayne State University Environmental Science Center. He recently sent us an article describing work at the Center, which was reprinted from the *Journal Environmental Health Perspectives*. A major focus of the Center is to address the consequences of pollution and poor environmental policies.

1969

**Lee Gori**, BS, is now with Chem-Tech, Inc. He had been with Emerson Electric for several years.

**Dr. Gary S. Jacob**, BS, after many years at Monsanto took a "package" and is now Senior Vice President, Research and Development and Chief Scientific Officer at IgX Corporation in Summit New Jersey. Gary continues his interest in glycobiology, which he developed while at *Monsanto*. We last saw him on route to Oxford where he still has collaborative work underway from when *Monsanto* sent him to Oxford several years ago. Gary had been a *Monsanto Fellow* since 1990.

1970

**Gene Bohn**, BS, transferred as Plant Manager of the Aurora, IL facility of Borden Chemical to Plant Manager of the Toledo, OH plant in March 1998. The Toledo plant makes coatings for the foundry industry and is the industry leader in making coatings used in the "lost foam" casting process. Gene's charge was to streamline production and he tells us that he was very successful. He has been in operations management for 5 years, and finds it interesting and challenging. He took some management science courses at the University of Michigan, several years ago and with some initial coaching from his daughter, an Indiana University graduate, he now uses mathematical models and spreadsheets extensively in his work, and this has helped considerably.

**Dr. John Kolb**, BS and his wife Judy continue to be very supportive of the department and we are most appreciative. We haven't seen him since the last ACS meeting in San Francisco but there is another one coming up in Spring 2000 and we hope to be able to get together then.

1971

**Dr. Sanford A. Asher**, BA, had some of his work described in *Chemical and Engineering News* in November 1998. The article was about photonic crystals and the reference to Sandy's work was a report of his article in *Materials Research Society Bulletin* on colloidal cubic arrays of nanometer-sized particles which rely on electrostatic repulsions to provide useful optical properties. Sandy is Professor of chemistry at the University of Pittsburgh.

**Dr. Dorothy Greco**, BS attended the reception held for the editor last February and was interested in knowing if he still made good tea. The answer was in the affirmative, of course. The chemistry

department is very fortunate to have the *William and Erma Cooke Scholarship* which was founded, and funded by Dorothy, and her husband Al Greco (BA Biology 1971) in honor of her parents.

**Dr. Dennis W. Wester**, BS, is back at his position at the Battelle Pacific Northwest Laboratory in Richland, WA after spending 3 years in Moscow. He is currently involved in the transfer of the process for the production of  $^{90}\text{Y}$  to New England Nuclear, Inc. near Boston. Dennis is co-holder of the patent for this process. He and wife Vickie now have three grandchildren and son Adam is now 12 years old. He recently became Treasurer of the Richland Section of the American Chemical Society.

1972

**Dr. Roger Gerdes**, BA, is a dental surgeon in Mission Hills Kansas. He sent us a message indicating what an inspiration Charlie Armbruster was to him when he was a student.

**Gregory Hayward**, BA, attended the reception for Dr. Armbruster but we didn't get a chance to talk to him and we hope he will send us a message giving an update of his situation. The last we heard he was a Programmer Analyst with *Genelco Inc.* in St. Louis.

**Dr. Robert Lamberg**, BS, attended the reception held for the editor in February and provided continuing funds to support the *Lamberg Fellowship*, which has been active now for many years in the department and for which we are very appreciative. A number of students have taken advantage of Bob's generosity which provided them with a stipend and an opportunity to do research with a faculty member in the department.

**Linda Sease** BS continues her support of the St. Louis Blues and since several faculty members attend the games we often have an opportunity to visit with her. Linda was with *Edison Brothers* but we are uncertain of that now since the company was having financial difficulties.

1973

**Dr. David A. Armbruster**, BS, is a Laboratory Director at *Pharmchem Laboratories* in Ft. Worth, TX, and his wife **Patricia J. Armbruster**, BS, is a chemistry teacher at Carroll High School in Southlake, TX. Pat recently enrolled in the University of North Texas, to study for a master's in chemistry.

**Michael Finkes**, BS, and his wife Linda had dinner with the editor and his wife at *Spiros* restaurant following the reception for Charlie Armbruster last August. Among other subjects, the group reminisced about wine tasting in northern California.

1974

**Larry Justice**, BA is a supervisor with *Geotechnical Engineers* and is involved in concrete testing. He and his wife have two children in college, a daughter at Southwest Missouri State University and a son at the University of Evansville.

**Steve Staat**, BS is Chief chemist with *Gen Co.*, and lives in Princeton, Indiana. He has been in the rubber industry almost all his working career. After graduation, he spent two years at Sigma

Chemical in St. Louis and then moved to Gen Co. He is married and has two boys, 17 and 21.

**Dr. A. Gregory Wall**, BA, (MS, 1981) continues his activities with the St. Louis Section of the ACS, especially with educational programs such as *Kids and Chemistry*, *National Chemistry Week*, etc. Greg is employed by *Sigma-Aldrich* in St. Louis.

1975

**Dr. William Z. McCarthy**, BS, (Ph.D. 1983) continues at *Mallinckrodt*, and although he is an excellent source for information on his contemporary department alums, he is very reticent to give any information about himself. We understand he is still fixing up his house on Hickory Street in the Lafayette Square neighborhood.

**Ronald Bonnell**, BS, attended the reception for Charlie Armbruster. He lives in Glencoe, MO but we don't recall what he is doing. Perhaps he will contact us.

**James Grib**, BS, (MS 1982) is Senior Technical Manager, Corporate Quality assurance at *Anheuser Busch* in St. Louis. Jim tells us that he is responsible for QA in South America, Canada, Great Britain and Ireland. He enjoyed travelling in Ireland recently with his wife.

**Richard Hoyt**, BS, has been very helpful to the department in his senior role at *Mallinckrodt Inc.* His current responsibilities as General Manager of Technology and New Product Development include process development and scale-up of bulk and dosage pharmaceutical products, dosage product manufacturing and international strategic sourcing of bulk pharmaceutical products. Approximately five years ago, the pharmaceutical group began to move into a dosage pharmaceutical business through the forward integration of bulk drugs manufactured by *Mallinckrodt*. To date, this effort to bring generic and new dosage products to market as well as development of new bulk pharmaceuticals has focused on three therapeutic areas: attention-deficit disorder, pain management and addiction therapy.

**Dr. Vincent Rapini**, BS, continues to practice dentistry and is often occupied with family life. Unfortunately he missed a recent reception in the department; he was detained at a basketball tournament where his 14-year-old was playing.

1976

**Robert Dittrich**, BS, has been at *Ralston Purina* for 14 years. His current position, Research Scientist, has him taking care of mass spectrometry, gas chromatography and the computer problems for the company. He is also involved in methods development.

**Dr. Robert Frease**, BS, his wife Wendy and 1-year-old daughter Molly, are moving to Clinton, in western Missouri near Sedalia, to teach science in High School. We understand they are a motorbiking family, according to Bill McCarthy.

**Lucky Kelley**, BA, is with Washington University School of Medicine and has been involved in designing computer-aided motor skills testing equipment. We understand he is very friendly with

**Francis W. Moser III** (BA 1995) who works at *Mallinckrodt Inc.* and whose daughter **Jennifer Moser** (BS 1999) also works at *Mallinckrodt*.

*A group of alumni and faculty at the reception for Dr. Barton. On the left is Dr. Wes Harris; on the right is Bill McCarthy and the two with their backs to the camera are Mark Owens and Dr. Barton*

**Dr. Andrew Ratermann**, BS, is still with *Cambridge* in Marion, Indiana. His company makes automotive parts from polyesters, styrene, peroxides, etc. His interest is in the chemistry of formulation and molding and he also gets involved in coatings, polyurethane adhesives and paints. When we heard from him recently he and his wife Renee were about to go hiking in the San Juan Mountains in Colorado.

1977

**Dr. Phillip Asaro**, BS, a medical doctor, just made a major career change. He left primary care clinical practice in June 1998 to take postdoctoral fellowship at the university of Missouri-Columbia in medical informatics. He had been in practice for 14 years, most recently in the Souldard area in St. Louis. To keep his clinical skills up to scratch, he is working part-time in an urgent care facility.

**James Ketchum**, BS, we understand lives and works in Everett Washington, presumably using skills acquired during his graduate study at the Institute of Paper Chemistry in Appleton WI (Now Lawrence University).

**Mark Owens**, BS, (MS 1982) has moved to the downtown St. Louis facility of *Mallinckrodt Inc.* He had been in the medical products division of *Mallinckrodt* in Hazelwood. Mark is now Senior Research Chemist still doing analytical chemistry but at the downtown facility. He will be doing methods development and validation in the Pharmaceutical Research and Development group in the narcotics division. He will be working with **Sandy Wisneski** (BS 1985 see elsewhere).

1978

**Patricia J. Barton**, BA, (MA History 1980) is now *Director of Research and Sponsored Programs* at Southeast Missouri State University, in Cape Girardeau. She has what the newspaper described as an "upscale riverfront loft apartment", and she and the editor commute on the weekends. Pat had been in a similar position at Spalding University in Louisville Kentucky. The current commute is less than half the previous one!

**Dr. Michael Ennis**, BS, gave the *Distinguished Alumni Lecture* this year, which was entitled "The Chemist's role in the Pharmaceutical Industry: Two Case Histories in Drug Development". Mike is a Senior Scientist at *Pharmacia & UpJohn*, in Kalamazoo, MI. Mike received a Ph.D. degree from California Institute of Technology following graduation from UM-St. Louis and he has been at Upjohn since leaving Caltech.

**Dr. Pauline Bellavance**, Ph.D., was elected Chair-Elect of the St. Louis Section of the American Chemical Society last fall. She is currently chair of the Steering committee and will assume the position of Chair of the St. Louis Section in January 2000. Pauline has held several posts in the Section including several years as Treasurer. She continues as Professor of Chemistry at Fontbonne College in St. Louis and the editor enjoyed a meal with Pauline and her husband Mike at the ACS meeting in Boston.

1979

**George Limpert**, BA, 1979, MS 1994 and **Steven R. Villasenor**, BS 1975, co-authored an article in a recent issue of the *Analyst*, on their joint work at *Mallinckrodt Inc.* in downtown St. Louis, titled "Simple rugged non-aqueous potentiometric titration assay for urea". Mallinckrodt employs Steve, who holds a Ph.D. degree in chemistry from Wayne State University, and George as analytical chemists. Steve received his Ph.D. degree from Wayne State University and George continues to take course here at UM-St. Louis, although he has taken, and aced, almost all we have to offer!

**Michael Maxwell**, BS, is *Manager of Quality Control* and involved in regulatory compliance with FDA regulations and GMP requirements at *Steris* in St. Louis. He is married and he and his wife have four children aged 17, 15, 11 and 5.

1980

**Dr. Randy F. Johnston**, BS, is now chairman of the Chemistry Department at Union College in Jackson Tennessee. Randy was at the Spring ACS Meeting in Anaheim with a group of undergraduate students who were presenting research papers.

**Thomas Mertle**, BS, is a Project Manager with *Dupont Protein Technologies*, in St. Louis and was recently promoted from Senior Research Chemist. Tom is involved in new product development with the company that used to be part of Ralston-Purina. He and his wife Donna have one son, who was 3 years old when we spoke.

**Dr. Charles Tatosian**, BS, has private endodontic practice in Mission Viejo, California. He is still single and enjoying it. He went on a trip to Armenia to provide dental care to children who had lost their parents in recent wars.

1981

**Michael A. Hauser**, BS, (MS 1986) was disappointed not to be able to attend the reception for Charlie Armbruster but he was attending the *Biennial Conference on Chemical Education* on the day of the event. Mike is a chemistry professor at Meramec Community College in St. Louis and has been handling the College Awards Program for the St. Louis Section of the ACS for years.

1982

**Dr. C. Michael Drain**, BA, was at the ACS meeting in Anaheim in the spring. Mike, who is assistant professor of chemistry at Hunter College in New York City presented a paper entitled: "Porphyrin tessellation by design: Metal-mediated self-assembly of arrays and tapes".

**Dr. Susan (Jansen) Varnum**, BS, presented several papers at the Mid Atlantic Regional Meeting of the ACS in May, including an invited lecture on *Humic Acid as a Methylation Catalyst*, in an Environmental Chemistry Symposium. Sue also had an article featured in the Journal of Chemical Education on *Our Microscopic Universe: An Interdisciplinary Course Examining Natural Phenomena Using Geology, Physics and Chemistry*. Sue is professor of chemistry at Temple University.

**Dr. Mark Knollman**, BA, has spent the past 10 years in Asheville North Carolina but he misses the St. Louis Blues Hockey team. Mark, who graduated from UMKC Dental School, is in "solo" private practice. His operation is computerized and was the most high tech facility in North Carolina when we spoke. He is quite involved in his community working for charitable organizations and he was also involved in getting a minor league ice hockey team for the area.

**Dr. Shailendra Kumar**, Ph.D, continues to keep us informed of his activities and he met with our campus alumni relations staff in Chicago last fall. Children Himani (5) and Shushane (2) are keeping Shelly and his wife Sangeeta busy. Shelly continues to teach and do research at Governor's State University and Sangeeta is now a librarian in a college with tenure-track status. He was recently awarded a NSF grant, matched by his institution, which will allow purchase of a 300 MHz NMR spectrometer.

**Dr. Dee (Lange) Bianca**, BS, (Ph.D. 1991) returned to St. Louis to teach chemistry in the department for the 1998-99 academic year. She taught the courses formerly handled by Charlie Armbruster and then returned to Oceanside California, where she and her husband Frank, who is a commercial airline pilot, have purchased a house.

**Dr. Stephen S. Lawrence**, BS, (Ph.D., 1990) won the *Earl L. Warrick Award for Excellence in Research* at Saginaw Valley State University. The award is named for a retired Dow Corning Corp. researcher and inventor. Steve also won the *Landee Teaching Excellent Award* in 1995 and has served as Assistant Dean and acting Dean of the College of Science Engineering and Technology at SVSU. To date he has been awarded the two highest honors accorded faculty at SVSU where he has been on the faculty since 1992.

*Kathy Osborn speaks at the reception for Dr. Barton as he looks on. In the background are Herb Kaiser (Ph.D. 1995) and Pat Barton (BA 1978).*

**Dr. Greg Lumetta**, BS, (Ph.D. 1987) was involved in the organization of a Symposium on *Calixarene Molecules for Separations* in the Separations Science and Technology subdivision of the Industrial & Engineering Chemistry Division at the Spring ACS Meeting in Anaheim. His receipt of a \$2,000 grant from the ACS-PRF to support this symposium was announced in an April issue of C & E. News. Greg presented two papers one in the symposium and the other in the inorganic division, both on the topic of reactions of f-block elements with diamides.

**Dr. Dennis Parazak**, BS, (MS, 1987, Ph.D. 1996) continues as an Inkjet Chemist at Hewlett Packard in Corvallis Oregon. He was recently granted a patent with one of his coworkers entitled "Bleed-alleviated aqueous pigment dispersion based Inkjet ink compositions". He and his wife Lynn are looking forward to son Eric's second birthday in September 1999.

1983

**Dr. Dawn L. Shiang**, BA, (Ph.D. 1988) who is with *Dow Chemical Company* in Midland MI, has been assigned to a management track that has led her to change recently from the Agricultural Division to Corporate R&D as a Resource Leader over the New Product & Math Modeling discipline (a group that accelerates New Product Development through Materials, Molecular, and Mathematical Modeling). From this vantage, she should gain a wider view of the company as well as learn what it's like to lead a group differing greatly in technology from her organic chemistry background. Everything is great on the home front and their two boys (Will 6, Alexander 3) are keeping Dawn and husband **Bill Shaing** (BA 1984, Ph.D. 1989, see below) very busy.

1984

**Dr. Donald Hesse**, BS, (Ph.D. 1991) is now computer network manager for the St. Louis Post Dispatch. Don had been doing analytical chemistry at *Quanterra* in St. Louis for several years.

**Dr. Floris Homan**, BS (Ph.D. 1989) had been with *Senetek* in St. Louis as *Director of Corporate Research* but the lab closed and he is now *Director of Analytical Chemistry Research* with KV Pharmaceutical Co. in St. Louis. Floris and wife **Peggy Ponzar** (BA, 1984) were at a winter reunion in Blueberry Hill with the **Shiangs**, **Stephen Kolodziej** (BA 1998, Ph.D. 1993), **Harry Harlow** (Ph.D. 1988), **Dee (Lange) Bianca**, (BS 1983, Ph.D. 1991) and others.

**Kim (Rankin) Huelskamp**, MS, was in the department in March with her children. Her daughter was taking the ACS High School chemistry contest and her son Nicholas was also with her. Kim has been with *Sigma Chemical* essentially since graduation and now works for *Sigma Diagnostics*, doing biochemistry.

**Myron Rhodes**, BS, left the FDA and now is working at OREAD Labs in Lawrence, KS.

**Dr. Pam Rush**, Ph.D., did her doctoral research with Professor Barton on metallaborane chemistry, did postdoctoral research with for Maurice Brookhart at the University of North Carolina - Chapel Hill and worked on organomanganese chemistry. From there she went to the Research Center at Hercules, Inc. in Wilmington, Delaware (1985-92). However she did not survive the job cuts and restructuring. Currently she is teaching at Christiana High School in Wilmington, Delaware and enjoys the summers off.

**Dr. Yuan Di (Judy) Shih**, BA, is in Fort Lauderdale and was working for *Dade International*, but the facility was closed and 850 people lost their jobs. She now works with *North American Biological Inc.* as a senior scientist. She enjoys more independence in her new position. She and husband Henry Gu and children Lili (10 years old) and Andy (almost 2) spent their December vacation cruising in the Caribbean.

**Dr. William R. Shiang**, BA (Ph.D. 1989), was transferred to the Agricultural Group four years ago, within the *Dow Chemical Company* and is currently leading a project in the urban pest area. The project is advancing very rapidly and is close to commercialization.

1985

**Dr. Janet Braddock-Wilking**, BA, continues to run the NMR Facility in the Chemistry department at UM-St. Louis and recently received funding from the NSF for a proposal co-written by Dr. Spilling to update the XL-300 NMR spectrometer. She hopes to have the system running by the end of 1999. (See under faculty).

**Sandy (Aubuchon) Wisneski**, BS, is *Analytical Research Manager* in Pharmaceutical Research and Development at *Mallinckrodt*, in the downtown St. Louis facility. She runs the analytical lab for the bulk narcotics group. Sandy and her husband **Rich Wisneski** (BS 1986) who is an *Associate Research Chemist*, have been at *Mallinckrodt* for several years and they have a daughter Sarah who is approaching her first birthday. Rich is involved in developing new imaging and drug chemical products for *Mallinckrodt*.

**Dale Lanser**, BA, has been with *Mallinckrodt* for about four years now and worked for Lloyd Hill (BS 1967) until Lloyd left for South Carolina. Dale is very pleased to be with *Mallinckrodt*. Previously he spent 12 years with *Scientific Associates* (now *Celcis*). He is a calibration specialist in the Quality Unit Section working in instrument repair and maintenance. He and his wife have two children, Denise 16 and Daniel 12.

**Dr. Chongfu Xu**, Ph.D. continues doing postdoctoral research with Professor Alan Cutler at Rensselaer Polytechnic Institute in Troy, NY. He is quite happy there and hopes his sons will be able to study at RPI. His sons are now in the ninth grade and his wife has a job in a nursing home.

1986

**Richard C. Wisneski** BS, is Associate Research Chemist - Imaging and Drug Chemicals Process Support at *Mallinckrodt*. His wife (**Sandra Aubuchon**, BS, 1985) is an Analytical Research Chemist at *Mallinckrodt* also and runs the analytical laboratory for the Bulk Narcotics Group. Richard and Sandra have a daughter (Sarah) who

was born on Oct. 30, 1998.

1987

**Randy George**, BA, spent two years as a bench chemist and then switched to the business side of chemistry. He worked for several years with two major companies and then started his own business in 1994. (His company is *Engineered Water Technologies, Inc.*)

**Michael Merriman**, BS, now works with *Perceptive Biosystems*, formerly *Perkin-Elmer Biosystems*, as a technical representative. He deals with Protein and DNA purification systems, HPLC, cloning, diagnostic kits and visit molecular biology laboratories. His area covers NY State, New Jersey, Manhattan and Long Island. His wife works with *Jansen Pharmaceutical*.

1988

**Dr. Gregory Duncan**, BS, was here for the reception following the Murray Lecture in April. Greg is now working at *Warner Jenkinson*, in St. Louis and he continues to collaborate with Dr. Welsh with whom he did undergraduate research. He holds a Ph.D. degree from the University of Southern California and spent some time doing postdoctoral research at Stanford.

**Dr. Christy S. John**, Ph.D., was recently appointed to a tenure track position in the department of Biochemistry and Molecular Biology at George Washington University in Washington DC. He had previously been in a non-tenure track position for several years. Thus he started as Associate Professor of Biochemistry and Molecular Biology on Jan 1, 1999, and also has a secondary appointment in Radiology. His science is going well. He has clinical trials started on one of his radiopharmaceutical compounds in Brussels. He was there in August 1998 to teach them the procedure for radiolabeling etc. He and his research group had three oral presentations at the Society of Nuclear Medicine Annual Meeting in Los Angeles in early June. Christy was in St. Louis recently for the *International Symposium in Radiopharmaceutical Chemistry* and the *International Symposium in Radiopharmacology*. He gave several oral presentations on cancer imaging agents.

1989

**James Baker**, BS, (MS 1992) is now with *Steris Corporation* in St. Louis.

**Gary Wester**, BA, (MS 1992) is now with *Koch Sulfur Products, Co.*, in Riverton, WY. He has been there since Jan 1 and his wife finally moved up here permanently in mid-March. They bought a three-bedroom, two-year-old house on two acres of ground (mostly full of sage). Gary's first bachelor's degree was in Wildlife Management, so he has been enjoying getting out in the mountains and observing all the big game and birds which are abundant there. His son is attending Webster University in St. Louis majoring in Film and his daughter is in her fourth and final year of Veterinary Medicine at UM-Columbia. She will graduate in May 2000. Gary is the Laboratory/Quality Manager. *Koch Sulfur Products* manufactures sulfuric acid for both commercial refinery use and the semiconductor industry. His facility manufactures an ultra pure

sulfuric acid that has been analyzed as the second purist sulfuric acid in the world. Only a company in Japan makes a purer form. The ultra pure acid is known as one part per billion electronic grade and is used by the semiconductor industry for processing chips. As the Laboratory Manager he is responsible for supervising two technicians analyzing metal contaminants in sulfuric acid. He still follows the St. Louis sports teams, especially the Blues and Cardinals.

1990

**David Schulte**, BA, is now a polymer chemist with *Dennis Chemical* in St. Louis.

1991

**Dr. Todd R. Boehlow**, BS, (MS, 1994, Ph.D. 1997) who completed his doctoral research with Professor Spilling, spent 18 months as a postdoctoral fellow at the University of Loughborough in England and is now a postdoctoral fellow at Montana State University with Professor Cynthia McClure

1992

**Dr. Yong Chen**, Ph.D, who did his doctoral work with Wesley Harris, is now working for *NutraSweet* in Skokie, IL. After a postdoctoral fellowship at Cornell University he had been doing postdoctoral research at the University of Illinois-Chicago.

**Dr. Steven Fallis**, Ph.D, is now a member of the permanent staff at the *Naval Weapons Research Facility* at China Lake, California. Steve's wife, **Kathy Fallis**, (Ph.D. 1993) had been on the staff there for a couple of years. Steve was previously at the Mallinckrodt Institute of Radiology at Washington University Medical School in St. Louis.

**Dr. Daquan Gu**, Ph.D., who did his doctoral research with Bob Murray, is now completing a computer Diploma at Concordia University in Montreal. Daquan had been a postdoctoral fellow with Dr. David Harpp at McGill University and has also worked in the Food Research and Development Center of Canada.

**Dr. Jean (Huhmann) Vincent**, BA, (MS, 1995, Ph.D. 1997) who had been doing postdoctoral work at the *Los Alamos National Laboratory*, is now employed by *Air Products Inc.*, in Allentown, PA. She is currently a Sr. Research Scientist in the Corporate Science and Technology Division. She works with Guido Pez on some oxygen carries. She is in their career development program, which means she does 2-3 one-year assignments in different divisions of the company. Husband John got a job as a mechanical engineer at a company in Washington NJ, *American National Can.* Recently they bought a house in Bethlehem, PA, which is about 30 min from both of their jobs. They really are enjoying finally being settled down and not living in apartments. We certainly understand.

**R. Ann Vu**, BA, is Quality Control Manager at *Steris Corporation* here in St. Louis. She recently moved to Wentzville, and has two boys (Corey, 5 and Kyle 7 months.)

1993

**Melinda McCann**, BS, works at *Monsanto* and recently returned to UM-St. Louis to pursue an MS degree in Biology.

**Loralee J. Mondl**, BS, is teaching chemistry at Marquette High School in the St. Louis area.

**Estatina Razavia**, BA, is now studying at the St. Louis College of Pharmacy. She will be doing an internship at *Asco Drug Company* in Wichita Kansas this summer. Esta spent a couple of years in Los Angeles after graduation before returning to St. Louis.

**Michelle Van Hee**, BA/BS, continues to work at *Monsanto* and her office recently moved to the Creve Coeur site. She is doing sequencing work. She has been annually attending a conference at Hilton Head and hopefully will be presenting a poster this year. She bought 12 acres of land at Hawk Point with an acre pond. At home she is busy breeding, training and showing Golden Retrievers. She is particularly proud of her golden boy who is just one win away from being an American Champion, two wins from being a Canadian Champion and is already an International Champion.

#### 1994

**Helen Y. Chiu**, BS, is working for the *Laclede Gas Company* in St. Louis.

**Sean Dingman**, BS, was at the ACS meeting in Anaheim and presented a paper on the growth of crystalline indium nitride. Sean was hoping to complete his Ph.D. degree at Washington University, by summer 1999, where he is working in the group of Professor Buhro.

**Mark D. Elking** BA (MS. 1997) continues to work with the *Anderson Consulting Company*.

**Dr. Kevin Koeller**, Ph.D., is working at *Monsanto*, having spent a couple of years doing postdoctoral research at the University of Nebraska, Lincoln, since completion of his Ph.D. degree with Professor Spilling. Kevin had been a postdoctoral fellow at *Monsanto* but is now a regular member of the staff.

**Karen M. Linck**, BS, works at *Solutia Inc.* as Marketing Technical Service Representative.

**Jeffrey Milner**, BA has been promoted and has changed groups since he went to Virginia with *Ethyl Petroleum Corporation* in Richmond VA. He was involved in the formulation of gear oil and supported the European operations last year and Japan this year but is now a Research and Development Scientist, promoted from Senior Research chemist. He tells us that Dennis Timmerman (BS 1978) is still with the company.

*Chancellor Touhill addresses Dr. Anderson as Dr. Barton looks on.*

**Lori Pollette**, BA, received her MS degree at the University of Texas-El Paso last year. She is now working on her Ph.D. degree and gave a paper at the *International Congress on Electron Microscopy* in Cancun last year.

#### 1995

**J. Scott Kretzer**, BS, is now with *Purochem, Inc.*, in St. Louis. He had been at *Epic Resins* in Wisconsin. *Purochem* is a company that produces industrial cleaners and also health and body products. Scott called us recently when he was looking to hire a student worker.

**Binh V. Lam**, BS, is now a programmer with the *Edward D. Jones Company*. He worked full-time on his MIS degree in our Business School after being at *Maxim* in St. Louis as an analytical chemist.

**Dr. Cecilia Marzabadi**, Ph D, has been doing postdoctoral work at Hunter College in New York City, with J. Franck. We understand she just accepted a faculty appointment at Seton Hall University.

**Kevin G. McHugh**, BA, is working at *KV Pharmaceuticals* in discovery research in the Particle Dynamics Section after spending some time at *National Graphics*. He is also started working for himself and is building a business with *Primerica*, Member of Citigroup. He is looking for people interested in either a part-time or full-time opportunity learning more about asset management. He is enjoying life in St. Louis and is married with two kids, Emily (6) and Andrew (8).

**Tracy Schweitzer**, BS, is still with *Celsis* in St. Louis. She is doing atomic absorption spectroscopy and work with other former UM-St. Louis chemistry alumni including **John Blair**, BS and **Angel Hawakawa**, BS.

#### 1996

**Elizabeth Amin**, BA, (MS 1986) is returning to St. Louis and will complete her Ph.D. degree with Professor Welsh. We last saw her when she participated in the wedding of Brian Grimmond and Yanina Levchinsky. She and her husband had been in Florida but were seeking a return to St. Louis when we last communicated.

**Dr. Antonette De La Cruz** Ph.D. is doing postdoctoral research at Washington University in the Bioorganic Chemistry Program with Dr. Douglas Covey.

**Radu Duta**, BS, spent a year in New Zealand. He was working for *Telecom New Zealand*, at the time, seconded there by his company *Technology Applications Inc.* He is now an Applications Engineer with *Catalysts Solutions* in St. Louis. When he was abroad, he visited Australia for a short while before heading back to the United States.

**Dr. Hong Fang**, Ph.D., continues to work in the Division of

Genetic and Reproductive Toxicology at the *National Center for Toxicological Research* in Jefferson, Arkansas. She is busy writing papers on structure-activity relationships for estrogenic chemicals. She has also been doing some modeling and the EPA is going to try her model for estrogenic activity studies. Daughter Lillian now plays the piano and will be in first grade this fall. For Hong husband Weida Tong, see postdoctoral fellows.

**Hong Gu** Ph.D., Dr Murray's last graduate student, is in the pharmaceutical division at Mallinckrodt. His research involves the chemistry of painkillers and central nervous system drugs.

**Christine Weiersmueller**, BA, who did her teacher certification training with Hal Harris and also obtained a BSED in Secondary Education here in 1997, is now teaching chemistry at Hazelwood West High School.

### 1997

**Jeffrey Scholten**, BS, has been with *Searle* in St. Louis since December of 1997 and he now works as a synthetic chemist in discovery. He works with Keith Webber (MS. 1985) on a project called Nitric Oxide Synthase. He tells us that he is learning chemistry on the job and taking night classes to obtain his masters degree here. After graduation in 1997, Jeff was at Monsanto as a temp, working for Dr. Jerry Ebner in Corporate Research for about six months.

**Victor Nelson**, BS, continues to work for the St. Louis Public School System in the Leadership Program. He is involved in leadership training and experiential programming for the District.

**Kirstin J. (Talir) Blase**, BS, spent a year doing environmental chemistry at *Quanterra* in St. Louis and is now working in the Radiological Sciences Department at Washington University School of Medicine. When we last heard from her she had been doing some radiolabeling of esters with  $^{19}\text{F}$  and then coupling them to short proteins.

**Yanina Levchinsky**, BA. graduated with an MS degree in chemistry here in August 1999 and was married to **Brian Grimmond**, who also graduated in August with a Ph.D. degree. Yana did her dissertation research with Dr. Janet Wilking and will be going to New Haven where Brian will be doing a postdoc at Yale University with Professor Jack Faller. She is currently seeking a suitable position in Connecticut.

### 1998

**Dr. Anne (Cafferty) Turnbough**, Ph.D., is now a Marketing Product Specialist with *Interbio* in Houston, TX. She was doing well as a chemical market analyst at *Air Liquide*, traveling around the US but an opportunity arose with a much smaller company as European Chemical Manager. The company is geared towards the management of wastewater and her job sometimes takes her from corporate meetings to wearing a boiler suit and Wellingtons (rubber boots for the non Europeans) on a boat behind the chemical plant. Her company has been negotiating to establish links with the Irish Trade Board so she is anticipating a few trips "home".

**Dr. Hossein Shabbany**, Ph.D. spent a few months doing postdoctoral research with his Ph.D. advisor, Dr. Spilling before joining the research group of Dr. George Gokel in the Bioorganic Chemistry Program at Washington University School of Medicine.

**Dr. Isabel Vasconcelos**, Ph.D. is Marketing Development Manager at *Ecolabs* in San Paulo, Brazil.

**Dr. Todd Staley**, Ph.D., now has a permanent job at *Monsanto* and he is in charge of analytical methods to be used at a new production facility under construction in Georgia. His work involves fermentation science in the dairy business, and was part of the bovine somatotropin project at Monsanto.

**Kevin A. Trankler** BS, is now in the Ph.D. program in the department and selected to work with in Professor Corey in organosilicon chemistry.

### 1999

**Andrew Briete**, BS, begins graduate work in chemistry at Purdue University in fall 1999.

**Andrew Granda**, BS, is working at *Beck Flavors* in St. Louis.

**Martin Hayes**, BS, after many options were provided him, chose to do his graduate work at Massachusetts Institute of Technology and begins study towards his Ph.D. degree in Fall 1999.

**Michael Johnson**, BS, accepted a position with Meridian Medical Technologies, makers of the Epi-pen (epinephrine auto-injector). He will be a *Raw Materials Analyst/Chemist I*, and responsible for full analysis of incoming raw material chemicals and drugs for the formulation of bulk pharmaceuticals used in the production of auto-injector drug delivery systems. He believes that his preparation here and as a student intern at the St. Louis FDA Laboratory prepared him well for his new career. Mike changed careers from employment in banking following receipt of a degree in business at Webster U. to return here to complete his chemistry degree.

**Dr. Juan Mareque Rivas**, Ph.D, who completed his Ph.D. degree with Professor Brammer, is currently doing postdoctoral research at M.I.T. with Professor Steven Lippard. He was very productive with Dr. Brammer and was instrumental in helping him get started in crystal engineering research.

**Nnaemeka Gene Okafor** BS starts medical study at the University of Missouri-Columbia in fall 1999.

**Dr. Robert Stockland**, Ph.D., who completed his doctoral research with Professor Anderson, is currently doing postdoctoral research at the University of Iowa with Professor Richard Jordan. This summer Jordan, and of course Robert, will be moving to the University of Chicago.

## Departmental Facilities

Faculty has now occupied the Center for Molecular Electronics Building for two years. We had hoped that two facilities from Monsanto would be moving into the Center but that didn't

materialize. What did happen is that the campus made an arrangement with the new *Danforth Center for Plant Science* and allowed temporary occupation of some Center space by the International Laboratory for Tropical Agricultural Biotechnology (ILTAB). Several scientists including the Director, Dr. Claude M. Fauquet have moved into three offices and a laboratory in the building as well as into some biology space in the Science complex. We are currently exploring possible collaboration with scientists in ILTAB.

The major improvement in instrumentation in the department was the installation of the JEOL M station mass spectrometer. This is a double focussing high-resolution system with Electron Impact, Chemical Ionization, Fast Atom Bombardment, Electrospray Ionization and Atmospheric Pressure Chemical Ionization capabilities. The resolution is 60,000 and the mass range is 20,000 Dalton. The instrument is in a remodeled 1,000 square foot facility in the basement of the Research Wing, and occupies the space formerly housing the Electron spin Resonance Lab (Tom Jones' old space) and an instrument shop. In addition to the M-station, the room contains the Hewlett Packard 56988A GC-Mass Spectrometer with chemical ionization, negative ion capabilities and a mass range up to 2000 and a VG ZAB-HF high resolution Mass Spectrometer set up to run FAB. We were successful in obtaining \$250,00 from the NSF and the Missouri Research Board to upgrade the Varian XL-300 NMR spectrometer to the Varian Mercury-300 spectrometer, Essentially we will obtain a new console and new software to go with the relatively new Oxford magnet acquired about four years ago. This instrument will be used both for research and in upper level undergraduate laboratory courses. We are hoping to write a proposal to upgrade the Bruker CCD x-ray diffractometer during the coming year.

Unfortunately, the long-awaited renovation of the undergraduate laboratories will be delayed again. Only \$2.5 million was appropriated by the legislature and we understand that the administration has earmarked some of these funds for other renovations. Unfortunately, renovation of the laboratories and the addition of the requisite number of hoods to bring them up to code is a very costly business and this amount of money will barely scratch the surface.

*Dr. Armbruster at his reception flanked by Dr. Spilling and former Evening College Dean, Joy Whitener.*

## Graduates, Aug. 1998 through May 1999

### AUGUST 1998

Paul McQuade, MS

Jun Quian, MS

### DECEMBER 1998

Ahmed Alzamly, MS  
W. Michael Johnson, BS  
Carole L. Prush, BA  
Scot Randle, BS

Ronald A. Besse, BA  
Juan Mareque Rivas, Ph.D  
Brad Rowe, MS  
Robert Stockland, PhD

### MAY 1999

Ronald A. Besse, BS  
Michael Bills, BA  
Ying Dong, MS  
Yahia Hamada, Ph.D.  
Gretchen Hoel, BS  
Donna A. Kramer, BA  
Tuan Q. Le, BS  
Rajendran Manjula, MS  
Jennifer A. Moser, BS  
Michael J. Pearson, BA  
Swati Puri, MS  
Anjanette P. Smith, BS  
Anchalee Thanavaro, MS  
D. Anthony Young, MS

Andrew G. Breite BS  
Jijumon Chelliserrykattil, MS  
Shiyue Fang, MS  
Martin Hayes, BS  
Philippa Jayatilleke, MS  
Lawrence M. Lawless, BA  
Nawana Lofton, MS  
Linyong Mao, MS  
Nnaemeka Gene Okafor, BS  
Mark Politowski, MS  
Robina T. Sial, BS  
Lynda Kay Suetterlin, BS  
Quinzheng Wang, MS

### August 1999

Michelle Sharpe, BA  
Peter Forgo, Ph.D.  
Yanina Levchinsky, MS

Ying Dong, Ph.D.  
Brian Grimmond, Ph.D.

## The Faculty

**Gordon K. Anderson** has survived his first year as chair of the department! In addition to his administrative activities within the department, he served on the successful search committee to select a new Dean of the College of Arts and Sciences. His research continues to go well. He attended the *Organometallic Chemistry Gordon Conference* this summer, and contributed an invited article for a special volume of *Inorganica Chimica Acta*. This past year saw the departure of Robert Stockland to a postdoctoral position at the University of Iowa, but he still directs the research of five graduate students, including one from his native Scotland. He and his wife Jayne continue as foster parents, and at present rarely get a full night's sleep with two 3-month old babies in the family!

**Charles W. Armbruster's** farewell reception went very well last August. A cross-section of the campus community, former and current students attended the event. Included in those present were **Steve Mestamecher** (BA, 1969) and his family including his brother with whom Charlie purchased his Lake of the Ozarks cottage in the late 1960s. Charlie says he has been healthy and happy since moving to Florida. The move was a real hassle and he didn't close on his house in Creve Coeur until April 1. Owning two homes for seven months was no fun, but things are going very well now. He tells us that his new home in Orlando is nothing short of fabulous. It's twice the size of his previous home so he had a lot of new furniture to buy but he says it was really fun (also a lot of work) getting it all together but he thinks he's finally there. Bob

Stearns and his wife stopped in for a visit a few months ago. He has not yet lined up any part-time teaching at one of the local universities or colleges, some possibilities were just too far away but he is working on it. In his 37 years at UMSL he never once took a sabbatical and taught every single summer, so, actually, this little break from teaching feels good. He continues to review chemistry textbooks and writes many letters of recommendation for former students. His e-mail address is armbruster@umsl.edu and I am sure he would love to hear from former students.

**Lawrence Barton** has just completed a year, which was very different from the previous 18. The year went well although he didn't complete as much work as he had hoped. His research, supported by a NSF grant, goes well. He published articles in *Angewandte Chemie*, *Inorganica Chimica Acta*, *Inorganic Chemistry Communications* and others in special issues of *Inorganica Chimica Acta* and the *Journal of Organometallic Chemistry* celebrating BORON CHEMISTRY AT THE MILLENIUM. He presented an invited lecture at the *Tenth International Meeting on Boron Chemistry* in Durham, UK, in July and will present another invited lecture in the symposium *Organic and Inorganic Synthesis via Boranes*, at the New Orleans ACS Meeting in August. He continues to be very active in the ACS and is currently St. Louis Section Councilor and a member of the national Council Committee on Local Section Activities. In March the St. Louis Section presented him with the *Distinguished Service Award*. This year he is Acting Director of the UM-St. Louis Center for Molecular Electronics and in the fall he hopes to make progress on the monograph *The Inorganic Chemistry of Boron*, for which he is under contract. For the winter semester 1999, he was on research leave and spent time writing papers and proposals, visiting a colleague at Leeds University in England and giving seminars. In the department he continues to be Alumni Coordinator, he chairs the External Relations Committee and has tried as best he can keep out of Dr. Anderson's way. On the personal side his third grandchild was born to Andrew and Debbie in April 1999.

*Lisa Hoguet who will be leaving at the end of August after more than five years in the department.*

**Donald F. Becker** has just completed his first year here. He is working to further develop the biochemistry division in the department. He is designing new courses such as Physical Biochemistry 377, which will be taught during the fall semester. In Physical Biochemistry 377, students explore protein folding, protein and DNA structures, protein-DNA interactions, and biophysical techniques. Don's research is focused primarily on redox-sensitive gene regulation. Presently, he is studying the PutA flavoprotein from *Escherichia coli*. This remarkable protein is both a gene regulator and a proline catabolic enzyme. Knowledge gained from

the flavin prosthetic group in PutA will contribute to the understanding of how redox active functional groups control gene expression. Don is looking forward to attending the 13<sup>th</sup> *International Symposium on Flavins and Flavoproteins* at the University of Konstanz, Konstanz, Germany in September. He is

*Dr. Barton at the reception where he received the ACS St. Louis Section Distinguished Service Award. From left are Caroline Messler, Harold Messler (BS 1970), Pat Barton (BA 1978) and daughter Cathy Barton.*

eager to present results from his first year at UMSL and to discuss research ideas with other flavin biochemists. Don has two students in his research group.

**Lee Brammer** moved his labs into the new Center for Molecular Electronics building, where his office is also located. The past year saw 8 publications from Dr. Brammer's group, with papers in *Journal of the American Chemical Society*, *Inorganic Chemistry*, *New Journal of Chemistry*, *Acta Crystallographica*, and a review, written with former Ph.D. student Juan Mareque Rivas, published in *Coordination Chemistry Reviews*. His research continues to develop in the area of supramolecular chemistry and in particular the applications of hydrogen bonding in inorganic chemistry.

Dr. Brammer continues to serve as a co-editor for the journal *Acta Crystallographica* and as an elected member of the US National Committee for Crystallography. He organized, with Robert Crabtree of Yale University, a symposium entitled "Hydrogen Bonding in Inorganic and Organometallic Chemistry" at the Fall 1998 ACS National Meeting in Boston, and in May 1999 organized the 16<sup>th</sup> Annual Missouri Inorganic Day, held in the Chemistry Department at UMSL. Last fall saw the graduation of Ph.D. student Juan Mareque Rivas, who subsequently joined the group of Stephen Lippard at MIT as a postdoctoral associate. Postdoctoral associate Dr. Reinaldo Atencio Fuenmayor also returned to a research position in his native Venezuela at the end of 1998. In May 1999, present graduate student Eric Bruton shared the department's Outstanding Masters Student Award. Dr. Brammer's group was also joined in January, 1999 by graduate student Colin Rodger, who is from Scotland.

**James S. Chickos** spent much of last summer in Europe. In the last UMSL CHEMIST we described his biking holiday in Ireland but didn't say much about his chemistry. He was an invited speaker in Castelbranco, Portugal, at a NATO Workshop on "The Energetics of Stable Molecules and Reactive Intermediates" and also at the IUPAC Meeting on Thermodynamics in Oporto, Portugal. This summer Jim taught summer school for the first time in decades. He tells me he is trying hard to find time to write up the research work of **Brad Hart** (Ph.D. 1994) who is currently working as a forensic

chemist near Sedalia, MO.

*Drs. Dave Larsen and Don Becker, the most senior and most junior faculty members enjoy refreshments at a reception.*

**Joyce Y. Corey** was an invited speaker at the 32nd *Organosilicon Chemistry Symposium* in Milwaukee last March and also at a Polymer Workshop in Kanazawa, Japan. The workshop took place after the 12th *International Symposium on Organosilicon Chemistry*, which was held in Sendai, Japan at which she was also an invited speaker. She described the work of student Brian Grimmond whose findings about the microstructure of the polysilane polymer produced from dehydrocoupling corrects a previous literature assignment. She also attended the organometallic chemistry Gordon Research Conference this summer. Grimmond graduated this summer and left for Yale to postdoc, leaving Dr. Corey with two graduate students and an undergraduate in her research group.

**Valerian T. D'Souza** has just completed a productive year in which he published 7 articles. A special issue of *Chemical Reviews* on Cyclodextrin, which he edited, appeared last August. In addition his research publications appeared in *Carbohydrate Research*, *Chemical Reviews*, *Journal of Organic Chemistry* and the *Journal of Nuclear Magnetic Resonance*. With the graduation of students **Peter Forgo**, who returns to his native Hungary to take up a position as Assistant Professor at Kossuth Lajos University, and the impending graduation of **Henghu Zhu**, his labs seem quite empty. Former student **Dr. Abdul R. Khan** (Ph.D. 1995) has rejoined his group as a postdoctoral fellow and is making impressive progress on the synthesis of a model for the study of long-range electron transfers. The UM-Research Board funds this project.

*Dr. Chickos shares a joke with Randa Schnieder*

**David L. Garin** has taken early retirement but will stay in the chemistry department as director of general/organic chemistry for the next three years. He spent the fall 1998 semester at the City College of New York and SUNY-Stony Brook in order to develop

and adapt a teaching technique called Workshop Chemistry which he will implement at UMSL this fall. Although he will focus on teaching, Garin had a paper accepted for publication in *Synthetic Communications* which describes the research of former students **Herb Kaiser** (Ph.D. 1995) and **Brad Rowe** (BS 1995, MS 1999, and currently a doctoral student with Dr. Spilling).

**Harold H. Harris** continues to write his monthly "Hal's Picks" for the Chemical Education Resource Shelf. Some of the books are described in the *Journal of Chemical Education's* "Summer Reading Recommendations" that appears in the June, 1999 issue. He and undergraduate students Kevin Edelman and Lynda Suetterlin have produced the *Journal's* next "Book Buyer's Guide" which will appear with the September issue. With Professor Patricia Simmons of the School of Education, Hal was organizer of a two-week series of workshops for elementary teachers of science in the region. This is the second year of "Project PHUSE" (Physics in Urban Science Education). Last year, the workshops were done at the St. Louis Science Center; this year Benton Hall was the headquarters. With the help of two area high school students, Professor Harris has been busy showing that a very popular science demonstration, in which a stream of water is bent by a charged object, has been widely misinterpreted through the years. (It is not because of the dipole moment of the liquid.) He will be presenting a paper on that topic at the upcoming ACS national meeting in New Orleans in August. This year is the 125<sup>th</sup> anniversary of the dedication of the Eads Bridge. Hal's description of the innovative technology required to construct this landmark, and especially the problem of "caisson disease" appeared in the July 4 issue of the *St. Louis Post-Dispatch*.

**Wesley R. Harris** has now completed his first year of service on the Missouri Research Board. He also traveled to New York in December to serve on a review panel for a NIH Program Project grant proposal on iron metabolism. The project was funded, and Dr. Harris has agreed to serve on the project's external advisory committee. That means he gets a free trip to New York every year for the next five years. He was also invited by EPA to Research Triangle Park to serve as one of two chemists in an interdisciplinary workshop on aluminum toxicity. He is now busy trying to coax some research funding out of the EPA. Two papers co-authored by former postdoc Yuejin Li have recently been published, and another paper has appeared co-authored by former Ph.D. student Anne Cafferty and former undergraduate Kevin Trankler. Dr. Harris also reviewed an issue of the series "Metal Ions in Biological Systems", and for the first time in his career, published a paper in a language other than English. The paper was written by former visiting professor Bingsheng Yang, and appeared recently in *Acta Chimica Sinica*. Lastly, Yahia Hamada received his Ph.D. at the May 99 graduation, and he has accepted a teaching position at St. Cloud State University in St. Cloud, MN.

**Dr. David W. Larsen's** research is still directed to development and commercialization of gasification. He hopes to obtain funding for scale up and testing but he does not have the funds committed at present. He published a number of papers in the past year but the research activity does not seem to move the practical development along. He is pleased to note that his recent graduate students are doing well. **Todd Staley** (Ph.D. 1998) now has a permanent job at Monsanto and he is in charge of analytical methods to be used at a new production facility under construction in Georgia. **Mike Washington** (Ph.D. 1997) is with Sigma and **John Boylan** (Ph.D.

1988) is still Director of the NMR facility at Boston College, where he also teaches courses on NMR.

**Robert W. Murray** continues his productive research program and although he plans to retire, formally, this year, his NIH-funded research will continue. He and his postdoc Megh Singh are now spending time attempting to mimic the ability of monooxygenase enzymes to convert arenes to their oxides in an enantioselective manner. They have had some success with three different systems. The selectivity does not match that of the enzyme. Nevertheless these are the first examples of mimicing this aspect of the enzyme reaction by direct oxidation of the arenes. A reception was planned for August 12 to honor Professor Murray and his transition to Professor Emeritus status.

**James J. O'Brien's** research, funded by NASA, continues but he is concerned that the whole NASA research program may be cut. Currently he has a postdoctoral fellow Hong Cao, from China, working in his lab and this summer had two STARS participants with him including both a teacher and a student. His laboratory still has not moved into the Center for Molecular Electronics where a brand new well-designed lab awaits him. Recently he has been collaborating with Leah O'Brien, who is on the chemistry faculty at SIU-Edwardsville, on the spectroscopy of free radical species derived from copper halides, and he tells me that this productive collaboration will continue. He recently attended the Annual Conference on Molecular Spectroscopy in Columbus, Ohio and was scheduled to attend a conference on Free Radicals in Flagstaff AZ. The O'Briens will be going there with daughters Christine and Emily and will do some vacationing type activities including a visit to the Grand Canyon, and a train trip in Colorado) as well. In the department he is currently working on updating the gas chromatograph for use in the Instrumental Analysis course. He has been quite concerned about comments from students who work in industry about our antiquated instructional equipment.

**F. Christopher Pigge's** research group now includes two Ph.D. students, a postdoctoral research associate, and a part-time undergraduate chemistry major. Chris continues to explore the chemistry of arene-metal complexes. A second project involves aspects of host-guest chemistry. Graduate student Shiyue Fang, the charter member of Chris' research group was awarded the Mallinckrodt Fellowship for the upcoming academic year. Chris recently returned from Madison, WI, after attending the National Organic Chemistry Symposium. His other big trip this summer will be to the National ACS meeting in New Orleans. Chris and his wife Beth Anne had their second child, daughter Jennifer Lynn, last November. Their older daughter, Katie, will turn three in July.

**Nigam P. Rath** continues to run our very productive X-ray Diffraction Facility and he is very busy with many data sets and structures. His work led to 40 publications last year. The Siemens (now Bruker) CCD instrument was upgraded last year by the addition of a new shutter system and a new low temperature devise and we are expecting more improvements this coming year. External user fees have improved but he still can expand that activity so any alum in industry looking for a single crystal structure determination service should consider contacting him.

**Christopher D. Spilling** was recently awarded a two-year PRF type AC grant beginning in September to study "Chiral, non-

racemic allylic alcohols: synthesis and applications". He attended the Organic Reaction and Processes Gordon Research Conference in New Hampshire July 11 through 16, 1999, and the Conference on Combinatorial Chemistry and Biology II in Cambridge England June 29-July 1. Postdoctoral fellow Jon Harburn and graduate student Anchalee Thanavaro who presented posters represented his research group at the National Organic Symposium in Madison, Wisconsin in June. On the personal side he and his wife Cathy still have three children Andrew 8, Robert 6 and William 1.

**Keith Stine** has a group of three graduate students, two full-time and one part-time. He published three items in the past year, one of which is his first ever article involving the use of electrochemistry. He is continuing his collaboration with colleague Val D'Souza and hopes they can secure further funding for their efforts. He has been invited to write a chapter on applications of monolayers to nanotechnology for the upcoming book Nanosurface Chemistry to be eventually published by Marcel-Dekker. He has also been busy as Program Chair for the upcoming ACS Midwest Regional Meeting to be held in October 2000 in St. Louis.

**William J. Welsh** continues his active research program in computer-aided molecular design. He and his research group of 16 postdocs and graduate students are currently involved in several funded projects in medicinal chemistry, including: (1) the computer-aided design of estrogen mimics, (2) the design and synthesis of cannabimimetic (marijuana-like) compounds, and (3) the design and synthesis of novel opioids for treating pain. Prof. Welsh currently receives funding from the NIH, EPA, NATO, National Alzheimer's Association, Monsanto, Mallinckrodt, Zeneca, and Sepracor. On the personal side, Prof. Welsh married Susan Barrow on January 28, 1998. Susan is a Vice President at Monsanto in the area of Knowledge Management. Sue hails from Camberley in the South of England.

**Janet Braddock-Wilking** (BA. 1985, see also under Alumni Information) attended the 32<sup>nd</sup> *Organosilicon Symposium* in Milwaukee, WI in March and presented a poster. She also attended the 12<sup>th</sup> *International Organosilicon Chemistry Conference* in Sendai, Japan in May where she presented a poster. Her first MS student Yana Levchinsky defended her thesis in July. Janet, while running the NMR Facility, also maintains an active research program. She currently has two papers in press on her work in organosilicon-transition metal complexes and recently published, jointly with Joyce Corey, a review in *Chemical Reviews* on oxidation addition reactions to transition metal centers.

**Rudolph E. K. Winter** has been very busy recently designing the new mass spec lab and installing the new instrument. He and Joe Kramer spent some time with the manufacturer JEOL learning about the instrument and how to operate it. Now we are able to run ESI and FAB spectra on our compounds. Rudi continues to run organic laboratory courses, teach organic chemistry and conduct research although at the moment he has no graduate students in his lab. Son Paul recently completed his Ph.D. degree in physical chemistry (!) at the University of Colorado; son Wil is working on a Ph.D. degree in political science at UMSL and daughter Liz is a computer wizard and lives in Florida.

**Dr. Zhi Xu** published four papers on his research in fields of nonlinear optics and molecular electronics. Last fall, he and his student, Ying Dong presented two papers on the subject of probing

interfacial chemistry using the new nonlinear optical molecular probing method at the 33rd Midwest Regional ACS Meeting at Wichita, Kansas. They are currently studying the effect of ionic strength on the retention time in HPLC and the structure of electrical double layer at metal-oxide/liquid interfaces.

### Adjunct Faculty

**Dee Bianca** (BS 1983, Ph.D. 1990) taught for us last year (see Alumni Information).

**Daniel Connolly** after many years decided to take a break in his teaching of biochemistry. Dan is with Monsanto and had taught for us since 19XX.

**Joseph Dence** continues to make the department his home and occasionally teaches chemistry courses. He also teaches courses for the mathematics department. Joe has assisted the Educational Testing Service in the evaluation of the Advanced Placement Test in Chemistry for the past 6 summers. He was recently appointed Book Review Editor for the Missouri Mathematical Association and has begun work on two new books: A Senior Text in Advanced Calculus and an intermediate graduate level text on the quantum theory of spectroscopy.

**Donna Friedman** who received her Ph.D. degree here in 1980 and has taught here in the summer for several years, taught quantitative analysis last semester in the evening. Donna is Professor of chemistry at the St. Louis Community College at Florissant Valley and has been a national Councilor for the St. Louis Section of the ACS for several years.

**John Gutweiler** continues to be the pinch hitter in the teaching activities in the department. This past year he taught chemistry 11 in the evening replacing Dr. Stearns who had taught this for many years.

**William Neumann** (Ph.D. 1987) has become a regular in the department's teaching program after a hiatus a couple of years ago. Bill continues at Monsanto and with the shakeup that took place recently, we understand that his responsibilities have increased.

**Robert Orth**, another regular in the department, has taught physical chemistry for a number of years. Bob has also been a very helpful source of advice in mass spectrometry, an area in which he is an expert. We are pleased to note that he appears to have avoided some of the structuring that has taken place at Monsanto and he is still there.

**Raghavan Rajagopalan** continues to teach organic chemistry in the evenings for us as he continues his career at Mallinckrodt.

**Robert Stearns** appears to be enjoying retirement. We have heard from him once – and we noted elsewhere that he and his wife Sandy visited Dr. Armbruster in Orlando earlier this year.

### The Staff

**Glenda Gillespie** joined the staff as secretary early this summer. She replaced Joann Jolly who left the department upon graduation. Glenda had recently moved to St. Louis from Terre Haute where she

worked as a secretary in the chemistry department at the *Rose Hulman Institute of Technology*. She had also worked at *Indiana State University*, also in Terre Haute. Glenda has five children and she and her husband recently settled in Cool Valley and she has been getting her daughter enrolled in school in the Ferguson-Florissant District. In addition to being busy in the department, there have never been more than two of the three office staff members there since she arrived.

**Lisa Hoguet** and husband Dan were blessed with a baby girl (Tara Ann) born on May 16th, 1999. Lisa was on maternity leave for 12 weeks and returned in August for one month. Unfortunately she was unable to find a satisfactory arrangement for her children Jay and Tara Ann, so she decided to leave the university at the end of August to be home with the children and to concentrate on completing her degree in secondary education.

**Gordon Kerschmann's** role has expanded as a result of the reassignment of Joe Kramer's expanded role in the mass spectrometry laboratory. Thus Gordon takes care of much of the electronics and computer maintenance in the department now and shares an expanded electronics shop with Joe Kramer in the basement of the Research Wing.

**Joe Kramer** has been reassigned to the Mass Spectrometry Facility as he and Dr. Winter work on getting all the new experiments going on the new M-Station. Joe visited manufacturers in Boston prior to our making a decision about which instrument to purchase. His shop has moved from the third floor of the research wing to the old Mass Spec Lab on the ground floor, which he now shares with Gordon Kerschmann.

**Donna Kramer** just returned from the annual conference of the National Association of Scientific Materials Managers in Colorado Springs (NAOSMM). She attended a similar meeting last year in Maine. At the Colorado meeting she attended a workshop on the handling of hazardous materials and several other lectures. Her husband Joe went with her and they were able to do some vacationing in the area. Joe and Donna enjoy watching the St. Louis Blues Hockey team. Of course, she now is a UM-St. Louis BA Chemistry graduate.

**Frank May** is another fellow who always has a smile for anyone he encounters in the department. The X-ray Powder Diffraction Facility continues to run very smoothly. The multitasking director just constructed a garage at his home and was in the process of arranging a cleanup crew for the Meramec River when we last talked.

**Ken Owens** continues to be heavily involved with the American Scientific Glassblowers Society (ASGS). He participates in local and national meetings whenever possible and is currently a member of three sectional groups. He was recently recognized as "The Outstanding Junior Member" by winning the Society's "Memorial Award" which includes an expense paid trip to the national symposium, held this year in Princeton New Jersey. The Society's charter is the dissemination of information on glass and glassblowing. We hope Ken will continue or increase his involvement as it is of great benefit both to him personally and to the department. Congratulations Ken.

**Randa Schneider** continues to work a 75% schedule in the department and recently took over Lisa's duties when she was on maternity leave. Randa continues to do essentially the graphics and structure drawing that goes on in the office as well as special projects that utilize her art degree.

**Ted Windsor** is a permanent fixture in the department and continues to do a very wide range of jobs including electronic equipment construction, machining and use of the lathe in equipment construction, repair of balances, vacuum pumps, slide preparation, picture hanging etc. etc. and he does it all with a smile.

### Postdoctoral Fellows

**Hong Cao** works with Dr. O'Brien on his NASA-funded project involving high-resolution spectra of simulated planetary atmospheres. She joined UM-St. Louis in the fall 1998 from the University of Beijing where she had been in the State Key Laboratory of Rare Earth Materials Chemistry and Applications.

**Robert (Kirk) Delisle** has just started work in Dr. Welsh's research group. He received his Ph.D. degree from the St. Louis University School of Medicine. His work on the design of estrogen-like compounds is funded by the EPA.

**Reinaldo Atencio-Fuenmayor** left Dr. Brammer's group in January 1999. Dr. Atencio currently holds a permanent research staff position at the *Instituto Venezolano de Investigaciones Cientificas*. (national laboratory) in Caracas, Venezuela.

**Anil Nair**, whose wife Padma is a doctoral student with Dr. Anderson, is in his second year with Dr. Welsh. He serves as the research group system administrator and works on a range of projects but primarily on the design of HIV Protease inhibitors for AIDS therapy.

**Sastry Pappu** who was a Senior Research Associate in Chemistry and Adjunct Professor of Physics, collaborating with Dr. Zhi Xu, has left the University and retired to be with his family in Georgia.

**Joong-Youn Shim** is now Dr. Welsh's senior postdoctoral fellow in terms of service and is currently in his fourth year. He continues to work on the computer-aided studies of the structure and functions of cannabinoids, in collaboration with colleagues at St. Louis University School of Medicine.

*Gordon Kerschmann*

**Megh Singh** continues to work with Dr. Murray and fuel Murray's productive research program. He has also been doing some work at

Monsanto and is currently on a three-month assignment there.

**Ramon Macias** left Dr. Barton's research group at the end of last year to return to his native Spain where he lives in a small village in the Basque region. He held an appointment with the government writing grant proposal but will take up an independent research fellowship at the University of the Basque Country in Bilbao, in the fall. His work resulted in articles in the *Journal of Organometallic Chemistry*, *Chemical Communications*, *Angewandte Chemie* and *Organometallics*.

**Peter Wolohan** has been gone from Dr. Welsh's laboratory for about a year and is currently doing an industrial postdoctoral fellowship with Exxon in Houston.

**Jon Harburn** works with Dr. Spilling and has been with him for almost a year. He is from Northeast England and received his B.Sc. degree from the University of Central Lancashire in Preston (the editor's hometown!) and his Ph.D. degree from the University of Loughborough.

**Kaliappan Iyanar**, who spent several years with Dr. Murray is now working at Monsanto Agricultural Chemicals in St. Louis.

**Rhodri Ll. Thomas**, who spent 18 months with Dr. Barton and then did a year at the Australian National University, funded by a Royal Society Fellowship (UK), is now a postdoctoral fellow at the University of Durham with Professor Todd Marder. Rhodri's work at UM-St. Louis resulted in a *JACS* communication in 1997, a recent article in *Inorganica Chimica Acta* plus two articles, which were recently submitted to *Inorganic Chemistry*.

**Seong Jae Yu** works on several projects with Dr. Welsh including the modeling of endocrine disrupters and the design of novel opiates. He is from Korea and is in his second year at UM-St. Louis.

**Jack Uang**, who did postdoctoral work with both Jim Chickos and Keith Stine, now has his own business but continues to do some work in the department with Jim Chickos.

**Xia Wang** joined Dr. Welsh's group last fall after receiving her Ph.D. degree from Nankai University in China in 1998. For her thesis research she studied molecular modeling and rational design of agricultural compounds. She is working here on a collaborative project with Monsanto on agrochemicals.

**Zhanmiao Zheng** joined Dr. Pigge's group last fall from Emory University where he received his Ph.D. degree with Professor Craig Hill. He is from Beijing, China and is working in Dr. Pigge's molecular receptor program.

### ALUMNI ASSOCIATION

The Alumni Association has had a very exciting and full year. At the August 1998 Annual Retreat, the plenary session for the Association, the board members adopted the theme for the year "Revisit, Recruit, Reinvest". With this theme came a new commitment to revisit friendships and alliances made at UM - St. Louis and to revisit the campus; to recruit students to attend the University and alumni to join the Association; and to reinvest in the

University with scholarship dollars, individual talent, other cash and in-kind donations; and to reinvest in the Association.

As part of this theme, the Alumni Ambassadors program was launched. Chemistry alumni interested in giving back to their alma mater in time, talent, wealth or wisdom are encouraged to contact the Alumni Relations office. We are seeking individuals who are interested in special projects, speaking with prospective students, board service, and/or chapter development, just to name a few things.

We currently have over 3,700 members and nearly 15 school, colleges, and department represented on the Alumni Association Board. The Chemistry Department hosted several events this year focused at getting the alumni back on campus. At the February 1999 Alumni Reception, the Lawrence Barton Scholarship was set on course to be endowed. The scholarship will be awarded to deserving students majoring in Chemistry with the first award possibly being given in the 2000/2001 school year.

We are excited about the energy coming out of the Association this year and we look to use it as fuel for years to come. To sum it all up  $A + P = O 4 A$ . That is Alumni plus Pride = Opportunity for All.

Please contact Todd Taylor, coordinator, Alumni Chapters and Clubs at (314) 516-6453 or Todd\_Taylor@UMSL.edu for more information or to join the Alumni Association.

### Kathleen Osborn

The University and especially the chemistry department lost a very valuable friend when Kathy Osborn, Vice Chancellor for University Relations, decided she could not refuse a very attractive offer to take a senior appointment with the *Regional Commerce and Growth Association* in St. Louis. She will continue to work with the campus in the Des Lee Partnerships. Kathy has been extremely helpful to us both in the alumni relations area and also in our efforts to build bridges to the local community, especially the chemical industry. She is clearly a big loss to the campus and we wish her luck in her new endeavor.

### The Robert W. Murray Lectureship

We continue to appeal for contributions to the fund that supports the *Robert W. Murray Lectureship*. Many of you have heard from us on this subject. We have reached about 60% of our goal of raising at least \$50,000. Thus we are looking for some rather substantial contributions from alumni, faculty colleagues, other faculty and administrators on the campus and colleagues of Dr. Murray in his field. If you have already made a contribution, perhaps you would consider making another one. If you find these requests to be too much, all at once, perhaps a commitment to contribute over an extended period would better suit your situation.

The Second Annual Robert W. Murray Lectureship was held on April 5, 1999. Professor Christopher S. Foote, of the University of California-Los Angeles presented a lecture entitled "Singlet Oxygen, Buckyballs and DNA". After the lecture a reception, attended by about 75 people, was held at the Alumni Center.

### The Lawrence Barton Scholarship

This new award was established earlier this year on the occasion of the reception honoring my 18 years as department chair. Although we were very successful and raised the entire essentially minimum \$10,000 necessary to endow the Scholarship within a week of announcing it, the interest which will accrue from this is not really very much so we would like to increase the principal. Thus we will continue to accept contributions until the principal has risen so as to provide an award of about \$1,000. The award will provide a stipend to a chemistry major who demonstrates financial need and who is academically successful with preference being given to first generation college students. This award is primarily designed for juniors. The other endowed award, the *William and Erma Cooke Scholarship*, is designed primarily for sophomores. This latter award is completely endowed through the kindness of Dorothy Greco and her family. If you wish to contribute to this new scholarship, please use the form at the end of this newsletter.

### Departmental Awards

1998-99

#### Undergraduate

The award for the *Outstanding Student in Introductory Chemistry* went to **Sarah M. Page**. She received a certificate and a *Handbook of Chemistry and Physics* from the Chemical Rubber Company. The *American Chemical Society Award for Analytical Chemistry* went to **Andrew G. Briete** 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 **Jonathan Stayton**. The award was presented at the annual Awards Night during the ACS St. Louis Section's Chemical Progress Week. **Martin Hayes** received the *Alan F. Berndt Outstanding Senior Award* and the *American Institute of Chemists-Student Award Certificate*. *William and Erma Cooke Scholarships for 1998-99* went to **Aaron Burns** and **James Laird**. The 1999

*Dr. Anderson with Undergraduate Awardees Elaine Katz, Kevin Edelman, Aaron Burns, Jessica Ricca and Jonathan Stayton.*

*Undergraduate Chemistry Awards sponsored by the Monsanto Company were awarded to: Aaron Burns, Kevin Edelman, Elaine Katz, William Majors, Jessica Ricca, Angela Schmidt, Jonathan Stayton and Joshua Stegemann.*

#### Graduate

The 1999-2000 *Mallinckrodt Fellowship* went to **Shiyue**

**Fang.** 1999 Summer Graduate School Dissertation Fellowships went to **Peter Forgo** and **Malcolm Arendse** and 1999 Graduate School Summer Fellowships went to **Ying Dong**, **Shiyue Fang** and **Qingzheng Wang**. A 1999 Alumni Summer Research Fellowship went to **Zhepeng Wang**. The 1998-99 Outstanding M.S. Student award was shared between **Eric Bruton** and **Jin Wang**. The 1998-99 Commendations for Excellent Performance by a Teaching Assistant were awarded to **Kevin Trankler** and **Qingzheng Wang** and the 1998-99 Graduate Teaching Assistant Award in Memory of **Jack Coombs** was awarded to **Elizabeth Thomas**.

### Alumni

The 1999 Distinguished Alumni Lecture was presented by **Dr. Michael D. Ennis** (BS, 1978). His title was "The chemist's role in

*Michael D. Ennis presenting the 1999 Distinguished Alumni Lecture.*

*the pharmaceuticals industry: Two case histories of drug development".* (See under Alumni Information). Several alumni attended the event including Mike's classmates **H. Pete Kleine** and **Mark Pozzo**, both of whom are with Monsanto or one of the "Monsanto Companies".

### Contributions 1998-99

Below we list all the individuals, chemistry alumni and friends of the department, who made contributions to the university last 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 because that list is more difficult to assemble.

#### CONTRIBUTIONS FROM ALUMNI AND FRIENDS

Mr. John C. Ackermann  
Drs. Massoud and Elizabeth Amin  
Anonymous NON-ALUMNI  
Dr. and Mrs. Phillip V. Asaro  
Dr. L. and Ms. Pat Barton  
Dr. and Mrs. Ali A. Bazzi  
Ms. Phyllis R. Bennet  
Ms. Kirstin J. Talir  
Mr. and Mrs. Jeffrey B. Blume  
Mr. and Mrs. Edward M. Bovier  
Mr. and Mrs. Mark E. Braton  
Mr and Mrs. Eric Brunngraber  
Mr. and Mrs. Joseph W. Bullock  
Mr. and Mrs. Thomas J. Byrd

Dr. Hongping Ye  
Dr. and Mrs. Gordon K. Anderson  
Dr. and Mrs. David A. Armbruster  
Mr. Siu W. Au-Yeung  
Ms. Rhea S. Baxter  
Mr. Mike and Dr. Pauline Bellavance  
Mr. and Mrs. Gregory K. Bertin  
Dr. and Mrs. Robert M. Bliss  
Mr. and Mrs. Ronald Bonnell  
Mr. and Mrs. Kenneth H. Braig  
Dr. Barbara W. Brown  
Mr. and Mrs. Roger W. Buchanan  
Dr. Mark A. Burkholder  
Mr. and Mrs. Rocky L. Carr

Mr. Cheng M. and Dr. Jeanette Chao  
Dr. Joyce Y. Corey  
Dr. C. Michael Drain  
Drs. Steve and Kathy Fallis  
Mr. William A. Field IV  
Dr. Christopher S. Foote  
Dr. R. M. Friedman  
Ms. Elizabeth Viviano Galie  
Ms. Fatemeh Ghasedi  
Dr. Joel N. Glassman and  
Ms. Katherine E. Cochrane  
Mr. and Mrs. Joseph M. Gorman  
Mr. and Mrs. James K. Grant  
Mr. and Mrs. James J. Grib  
Mr. Yahia Z. Hamada  
Mr. and Mrs. Steven J. Harrison  
Dr. Mary K. Hays  
Mr. and Mrs. Lance G. Hellwig  
Dr. and Mrs. David E. Henton  
Mr. and Mrs. Daniel A. Hoguet  
Dr. Sedigheh Hosseini  
Dr. and Mrs. Gary S. Jacob  
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Mr. and Mrs. Jeffrey L. Milner  
James K. and Lorelee J. Mondl  
Mr. Richard J. Morfing  
Dr. and Mrs. Robert W. Murray  
Mr. and Mrs. Donald O'Neal  
Dr. and Mrs. Robert G. Orth  
Mr. and Mrs. Mark H. Owens  
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Mr. Mike A. and Dr. Janet D. Place  
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Dr. S. B. Ranavare  
Dr. Andrew L. Ratermann  
Dr. and Mrs. William P. Ridley  
Mr. and Mrs. James Riggio  
Dr. and Ms. David B. Robertson  
Dr. Pamela Rush  
Dr. Suzanne E. Saum  
Ms. Linda D. Sease  
Dr. and Mrs. Karl W. Seper  
Drs. Xue M. Gu and Judy Shih  
Dr. and Mrs. Megh Singh  
Dr. Barbara A. Soltz  
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Mr. and Mrs. James F. Essinger Jr.  
Dr. Hong Fang  
Mr. and Mrs. Michael J. Finkes  
Dr. Donna G. Friedman  
Mr. and Mrs. Tony L. Frost  
Dr. David L. Garin  
Mr. and Mrs. Richard H. Glaenger  
Ms. Sangeeta and  
Dr. Shailendra Kumar  
Dr. and Mrs. Charles R. Granger  
Drs. Alfred O. and Dorothy C. Greco  
Mr. and Mrs. Brian M. Gross  
Dr. Harold H. and Ms. Mary Harris  
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Mr. and Mrs. Ken. O. Henderson  
Dr. and Mrs. Donald G. Hesse  
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Mr. and Mrs. Siddharth G. Kamath  
Mr. and Mrs. Lucky K. Kelley  
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Brian and Lori Lankow  
Mr. Ross W. Larson Jr.  
Mr. and Mrs. Mark A. Leiber  
Mr. and Mrs. George W. Limpert III  
Dr. Yu Lin  
Mr. and Mrs. Gary R. Luebke  
Ms. Patricia D. Magee  
Mr. Kevin G. Mallon  
Mark A. Knollman, DDS PA  
Ms. M. Suzanne Mates  
Mr. and Mrs. Heath W. McCann  
Mr. Michael C. Merriman  
Mr. Thomas J. Mertle  
Dr. and Mrs. Steven A. Mestemacher  
Dr. Jane A. Miller  
Mr. and Mrs. Brian Mohr  
Ms. Sharon J. Moran  
Mr. Russell W. Moutray  
Dr. William L. Neumann  
Dr. and Mrs. Harry W. Orf  
Mr. and Mrs. Kenneth E. Owens  
Dr. Sastry V. Pappu  
Dr. and Mrs. Dennis R. Patterson  
Dr. and Mrs. Keith P. Polette  
Mr. and Mrs. Gregory W. Przygoda  
Dr. and Mrs. Vincent U. Rapini Jr.  
Dr. and Mrs. Nigam P. Rath  
Mr. Girard R. Riehl  
Mr. Bruce E. and Dr. Vicki M. Ritts  
Mr. and Mrs. John W. Ruggeri  
Dr. and Mrs. Martin Sage  
Mr. John J. Schuster  
Mr. Norman R. Seay  
Drs. Bill and Dawn Shiang  
Ms. Kathleen T. Osborn  
Dr. and Mrs. Jeffrey W. Siria  
Mr. and Mrs. Jason A. Sondgeroth

Dr. Keith J. Stine	Mr. Robert A. Stockland Jr.
Mr. Dan. Stueck and	Mr. Charles L. Thierheimer Jr.
Ms. Debbie Tannenbaum	and Ms. Cindy L. Dahl
Mr. and Mrs. John J. Taylor	Dr. Charles V. Tatosian
Dr. Shengping Tian	Mr. Joe and Dr. Blanche M. Touhill
Mr. and Mrs. Dan C. Tucker	Drs. Jim. and Sue A. Varnum
Dr. Isabel C. Vasconcelos	Ms. Arlene F. Vogelsang
Mr. and Mrs. Nathan Wagner	Ms. Xia Wang
Dr. and Mrs. Douglas Wartzok	Mr. and Mrs. Gregory R. Webb
Mr. and Mrs. R. Keith Webber	Dr. William J. Welsh
Dr. and Mrs. Timothy Wenzel	Dr. and Mrs. Dennis W. Wester
Drs. Bruce A. and Janet B. Wilking	Mr. Norman R. Windsor
Mr. and Mrs. Richard C. Wisneski	Mr. and Mrs. Eric E. Wright
Dr. Shuguang Wu	Dr. Zhi Xu
Dr. Hongping Ye	Dr. and Mrs. Mike W. Young

*Dr. Anderson presents the Jack L. Coombs Award for Outstanding Performance as a Graduate Teaching Assistant to Elizabeth Thomas.*

### Keeping us informed

I have been asked how I am able to obtain so much information on alumni, more than one finds in the typical departmental alumni newsletter. Indeed, I have been invited to attend the 1999 retreat of the Alumni Association in mid-August, to participate in a panel discussion on that topic. The answer is not an easy one to give. Since I was here when the first class graduated, I know just about all the graduates of the department and have made it my business to keep in touch with as many as possible. There are several reasons for doing this. It is clearly very satisfying to see one's former students do well. If there are such things as products of our work, then it is the graduates of the program, which are the most significant. Other measures of productivity include research publications and grants but these would not be possible without the students who do most, if not all, the experimental work. Of course it is important if one is writing a newsletter such as this to maintain contacts. Furthermore, I regard most of the former students I met here as personal friends and that is an additional impetus for maintaining contact.

Thus whenever I hear anything about any of you, I make a mental, or sometimes written, note of the item. Sometime, but quite rarely, colleagues give me information but most of it comes from journals, the newspaper, hearsay and efforts on my part to obtain information. I am a little frustrated that we don't hear from more of you. There are many reasons why it is important to us, in addition to the points I make above. Success of graduates is a good argument to the administration to support us. Success of graduates working in corporations, either in this area or elsewhere provides an important lever when we are seeking support from industry. As in most universities, the fraction of our financial support that derives from the state has been steadily dropping, and thus we need more external support from corporations, friends, alumni etc. For years we have been cognizant of the fact that as a young university, we don't have so many alumni who are in a position to make substantial gifts to the university. Since now some of our graduates are retiring, that situation must be changing and we hope you can find it possible to make a contribution to the department. Unfortunately, we have very little financial aid available for students here and one goal is to increase the support given to students, especially undergraduates in the form of scholarships. Remember anything you do to help improve the institution, helps you because it increases the value of your degree. The better the reputation of an institution, the more highly regarded are its degrees.

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

Enclosed is my contribution of \$ \_\_\_\_\_ Yes I work for a matching gift Corporation.

Designation for funds:

Robert W. Murray Lectureship \_\_\_\_\_

E.G. Brunngraber Fellowship \_\_\_\_\_

Lawrence Barton Scholarship \_\_\_\_\_

Undergraduate \_\_\_\_\_

Graduate \_\_\_\_\_

Unrestricted \_\_\_\_\_

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

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

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**INFORMATION UPDATE 1999**

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

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

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

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

Recent Activities:

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Other News:

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