



# UMSL CHEMIST

Department of Chemistry

University of Missouri-St. Louis

Volume 6

March 1988

## Chairman's Message

Many of our alumni have commented on the four recent issues of the new UMSL Chemist. We hope their reactions are typical!

For me, the most enjoyable aspect of the exercise over the last four years has been the news of the successes of our former students. It is certainly most satisfying to see how well so many of you have done. The responses we received via the "Information Update" are included in the following section.

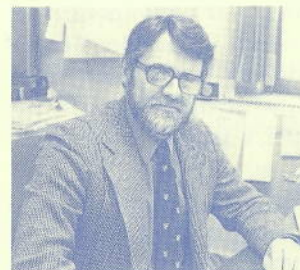
The current year has been extremely important in the ongoing development of the Chemistry Department. We were afforded the funding for the long range "Eminence" plan, which allowed us to hire a second new faculty member, provided more and higher graduate student stipends, and provided some modest funding for instrumentation. If the state legislature funds the second year of Chancellor Barnett's "Partnerships for Progress" in this legislative session then the second year's funding will also be provided. This will allow us to add a senior faculty member, a part-time instrumentation technician and additional graduate student support.

At this time we are in the process of recruiting and we have just heard from our top candidates that they will join us in the fall. One new appointee is Wesley R. Harris who is a bioinorganic chemist. The other, James J. O'Brien, a laser spectroscopist, is a replacement for Dr. John Schreifels, who is leaving. John, by the way, took the initiative four years ago to revive our alumni activities; we owe him a debt of gratitude for this. Information about the new faculty members is given towards the end of this newsletter.

Chancellor Marguerite Ross Barnett is completing her second year at UM-St. Louis. Her "Partnerships for Progress" initiative brought the funding to campus that resulted in the establishment of a "Center for Eminence" in Chemistry at UM-St. Louis. Other new programs

funded through this means include the Bridge Program (a partnership with the St. Louis City Schools), a Ph.D. degree in Political Science, a Ph.D. degree in Physics jointly with UM-Rolla, and a Ph.D. degree in Plant Science joint between the Biology and the Missouri Botanical Garden. New support this coming year will fund a second "Center of Eminence" in Political Science.

Chancellor Barnett has rapidly become an extremely influential figure in the civic life of the community. She is a member of Civic Progress, the Boards of Directors of Union Electric, Mercantile Bank and, important for us, Monsanto. She is also on the Board of Trustees of the Saint Louis Symphony Orchestra and the Arts and Education Council of Greater St. Louis.



The Science Complex continues to grow, linking Benton and Stadler Halls. Much of the exterior brick finish is complete, glass is now in place in most of the windows and the laboratories in the Chemistry/Physics wing are now quite recognizable. We have been told that we will occupy new space in August and much of the remodeling of the west wing of Benton Hall is already underway. Other alterations will begin this summer.

Our enrollment continues to hold its own. At the undergraduate level a slight downward fluctuation at the reflects the national trend in physical science enrollments, but all indications point to an upward turn. Graduate enrollments are up and we expect to see them continue to grow. The ACS Student Affiliate Chapter is relatively active this year and such activity usually results in increased enrollments, particularly at the undergraduate level.

The year has very successful in the area of research. Chemistry faculty brought in our largest-ever amount in external grant funding (\$779,063) and our publication efforts were equally productive (40 publications and 20 papers presented). We have been able to secure funds from the National Science Foundation's program, Research Experience for Undergraduates. This award along with some support from Monsanto allowed us to involve several un-



dergraduates in research programs in the department. Last summer, for example, 10 undergraduates were involved in research, half of them supported through the REU program, one of these actually spending the summer at Monsanto.

We continue to develop our interactions with the local chemical industry in several ways. Primarily we provide a supply of well-trained graduates for employment, but several other very positive features have emerged. Some faculty have undertaken collaborative research projects with local industry. To mention just a few: Dr. John Schreifels works with Anheuser-Busch and Petrolite, Dr. David Larsen has several joint projects underway, Dr. Tom Jones is currently establishing a Research Center - "Molecular Electronics", and is seeking industrial collaborators. We continue to receive support from your companies. This year Monsanto has provided support for post-doctoral, graduate, and undergraduate research. Our first industrially-sponsored Graduate Fellowship was established this year. The Mallinckrodt Graduate Fellowship was announced in a letter from CEO Edward Bentele to Chancellor Barnett last spring. The first Mallinckrodt Fellow is William Shiang (see elsewhere). The industrial advisory council Steering committee met in the Fall and a general meeting is to be scheduled for early summer.

Please keep in touch with us. Let us know about your careers as they develop and let us know if you are seeking new employment or if you are seeking new employees. If you are in a position to influence your employer's support of us (financial or otherwise) please think of us! Encourage your colleagues, if you are in St. Louis, to enroll in our part-time graduate programs or those in the Business School. A proposal to establish an engineering program here is currently under consideration. A recent survey indicated how sorely such a program is needed in St. Louis, and we hope you will speak out in support of this venture. I intend, by the way, to appoint a group to set up a formal Chemistry Chapter of the UM-St. Louis Alumni Association.

Finally, we hope that as many of you who are able will attend the up-coming reception on April 15 at 7:00 PM in the Alumni Center. We hope that we will be able to arrange some sort of formal function when the new building is completed and we will be in touch with you on this matter. If you are in the area, or back in town, please visit the department. We can't promise a tour of a new building yet, but we can promise that you will see many changes in Benton Hall.

We wish all the very best for the coming year.

Sincerely,

Lawrence Barton  
Professor and Chairman



## Alumni Information

### 1966-67

- *Thomas Dueber*, B.S., was not able to attend the 25th anniversary but he did call us to wish us all the best. Tom is a research scientist at Dupont. He did a M.S. degree at UM-Columbia and then was drafted. Stationed in Utah he attended some courses at the University of Utah and on completion of his tour of duty he enrolled in the Ph.D. program and completed his Ph.D. with Professor Peter Stang.
- *Jodie Duke*, B.S., is also a research chemist at Dupont. He went to the University of Michigan after graduation and earned a Ph.D. in biochemistry.
- *David Henton*, B.S., is still at Dow Chemical Company in Midland, MI. He is working on new engineering plastics and is married with two children. Dave obtained a Ph.D. in organic chemistry from the University of Kansas and was drafted into the army in the middle of the period.
- *Donald Kaesser*, B.S., is Clinical Director of the Intensive Psychotherapy Program at Mercy Medical Center in Des Moines, Iowa. Don was formerly a psychology faculty member at Des Moines Area Junior College. He received his Ph.D. in psychology at Iowa State University two years ago and an M.A. earlier from Central Missouri State University.

### 1967-68

- *Wiley Moore*, B.S., is a pilot with Continental Airlines. He is captain of an A-300 Airbus and is based in Denver. He lives in Seattle, Washington.
- *Robert Nicolotti*, B.S., is now a research biochemist at Vitec-McDonnell-Douglas Health Systems Inc., the health research arm of McDonnell-Douglas Corporation.
- *Raymond F. Novak*, B.S., has been appointed Director of the Institute of Chemical Toxicology at Wayne State University, effective later this year. He is currently Professor of Pharmacology at Northwestern University School of Medicine. Ray received a Ph.D. in physical chemistry at Case-Western Reserve University and at Northwestern he has developed a fine career as a researcher in biochemical pharmacology, toxicology and biophysics.
- *John E. Thompson*, B.S., lives in El Dorado Arkansas and runs a company which specializes in oil reclamation with his brother. John was formerly with PPG Industries.

## 1968-69

- *Lee Gori*, B.S., was promoted to Senior Standards and Procedures Specialist at Emerson Electric in 1986. Lee was with Universal Match Co for several years before joining Emerson.
- *Steven Mestemacher*, B.A., has been with DuPont for almost fifteen years. He joined the company after he received his Ph.D. degree from Washington University. He currently lives in Parkersburg, West Virginia, with his wife Joyce and their two children. He is superintendent in charge of technical support for DuPont and is also very active in his community (info provided by Bill Buxton).
- *James J. Reilly*, B.S., is Science Department Chairman at the Wentworth Military Academy in Lexington, Missouri. Jim received a M.S. degree from Washington University.

## 1969-70

- *John Chruma*, B.A., is Applications Technology Manager with Monsanto's Plastic Division in St. Louis. He is currently involved with the application of CAE in the design and manufacture of plastic components for the business machine and telecommunications markets. Recently he served as co-chair for the Society of Plastics Engineers Regional Technical Conference held in St. Louis.
- *Leslie Kalman*, B.A., is President and sole stockholder of the East Dallas Center for Orthopedic and Hand Surgery. Les, an orthopedic surgeon with a D.O. from Kirksville College of Osteopathy, and his wife Sandy have one child, Vincent, born in 1986.
- *John Koenig*, B.S., is Technical Supervisor of the Clinical Chemistry Laboratory at Barnes Hospital in St. Louis. He is in charge of the general chemistry and R&D sections of the laboratory. John is a productive scientist having published several papers, he has several professional certifications and he was recently elected as President-elect for the Missouri Society for Medical Technology. He is married with three children.

## 1970-71

- *Sandy Asher*, B.A., is now Associate Professor of Chemistry at the University of Pittsburgh. Sandy is scheduled to give the Distinguished Alumni Lecture this year. (see elsewhere).
- *Kerry Martin*, B.S., is General Manager of Peck Products in St. Louis. Kerry joined the company

directly after graduating from UM-St. Louis. Initially he was in quality control and since then he has risen to the top and he runs the place. The company produces industrial soaps, detergents and lubricants. He transferred to UM-St. Louis from UM-Rolla and was a Coop student at Monsanto until graduation.

- *Harry W. Orf*, B.S., is Director of the Department of Molecular Biology at Harvard University. Harry received a Ph.D. from Harvard and decided he couldn't leave the place. He has several outside business interests including serving as president of Cambridge Laboratory Consultants, a company involved in laboratory planning and design, project supervision, technical consulting and education.
- *Dennis W Wester*, B.S., is now a Senior Scientist with Neorx in Seattle, WA. Dennis was previously at Mallinckrodt, Inc. in St. Louis where he was a Research Manager. He has a Ph.D. from the University of Florida and did post-doctoral work at Ohio State.

## 1971-72

- *Larry Legler*, B.S., is a self employed full-time physician in family practice in Independence, Missouri. He received his M.D. from the Baylor School of Medicine.
- *Suzanne Metz*, M.S., is a Senior Research Chemist at Monsanto in St. Louis. She has been involved in organic synthesis for the 14 years she has been with the Agricultural Products Company. Sue and her husband Paul have two children, Kelly (8), and Dennis (5).
- *Linda Sease*, B.A., works for Edison Brothers in St. Louis. Linda was recently promoted to computer programmer with the company. A St. Louis Blues fan, Linda has been a member of the Blueliners for 14 years and holding various offices including chairman. She is now the editor of the newsletter.

## 1972-73

- *Major David Armbruster*, B.S., received his Ph.D. from the Medical College of Virginia in August 1986. He is Chief, Radioimmunoassay, Epidemiology, USAF School of Aerospace Medicine at Brooks Air Force Base in Texas.
- *Michael Finkes*, B.S., (M.S. 1978), is still involved in organic synthesis at Monsanto's Agricultural Products Co. Mike was featured in Spring 1987 issue of the UM-St. Louis Alumni Bulletin.
- *Tom Grossheim* is not a chemistry alumnus but we think we saw enough of him to award him honorary

membership. Tom took chemistry from us and did some research with Dr Harris in collaboration with Jake Levanthal. Tom graduated in physics from here in 1973 and then completed a M.S. in chemical engineering from Washington University. Since then he has been with Ethyl Petroleum Additive Division. He was in Britain with the company for four years and is now associate director of R & D in St. Louis, responsible for the chemistry research lab.

- *Kenneth O. Henderson*, B.S., is still with Ethyl Petroleum Additives Division of Ethyl Corporation in St. Louis. According to Ken's boss he is the expert in rheology in the company.
- *Steve Mertens*, B.S., is a major accounts executive for Videojet Systems International in Danville CA. Steve received an M.B.A. from UM-St. Louis in 1977.
- *Fred Mitchell*, B.S., is at the Midwestern USDA Laboratory in St. Louis. He supervises a laboratory mainly concerned with analyzing various target organs from the animal population in the US for pesticide residues. His section primarily deals with hormones and utilizes GC, GLC, MS and RIA.
- *Gregory Przygoda*, B.A., is a Senior Engineer at McDonnell-Douglas and is involved in non-destructive testing research and development.

#### 1973-74

- *Virginia Martin*, B.A., is Assistant Professor of obstetrics and gynaecology in the Division of Reproductive Endocrinology at St. Louis University School of Medicine. Ginny is actively engaged in patient care research and teaching based primarily out of St. Mary's Hospital in Clayton.
- *Steven Staat*, B.S., is Chief chemist and Assistant Technical Director for R & D General Plant Compound Processing at the American Rubber Products Corporation in LaPorte, Indiana. Steve worked on his M.S. degree in chemistry at the University of Akron's Institute of Polymer Science. His research was on the development of organometallic polymerization catalysts.
- *Alan G. Wall*, B.A., (M.S. 1980), is a technical service specialist with Sigma Chemical Company in St. Louis. Alan received his Ph.D. degree under Eric Block at SUNY-Albany. Alan serves as a member of the Steering Committee of our Industrial Advisory Council.

#### 1974-75

- *L. William Buxton* B.S., has been at the DuPont Company since 1981. He now works in technical service in the Teflon Products Division. Bill has a Ph.D. in physical chemistry from the University of Illinois-Champaign.
- *Robert Dugger*, B.S., is a Senior Research Scientist at Pfizer Central Research Laboratories in Groton, Connecticut. Bob received his Ph.D. in organic chemistry at UC-Berkeley and was formerly a member of the chemistry faculty at the University of Miami in Oxford, Ohio.
- *William Z. McCarthy*, B.S., (Ph.D. 1985) is now at Mallinckrodt, Inc. in St. Louis.
- *David Vreeland*, B.A., continues his endodontal practice in Ballwin. David is married and he has two daughters.

#### 1975-76

- *Robert L. Dittrich*, B.S., is a chemist at the Ralston Purina Company. Bob does general organic chemistry and species analysis in the Central Research Services Department.
- *Robert Frease*, B.S., is doing graduate work in chemical oceanography at Florida International University in Boca Rotan, Florida.
- *Andrew Hillicker*, B.S., continues to take courses at the university. We are not sure whether he is working toward another degree. Andy works with the City of St. Louis Air Pollution Control Department.
- *Jeffrey B. Wheatley*, B.S., is an Associate Chemist with Rainin Instrument Company in Berkeley, CA. Jeff presented the paper: "Analytical Affinity: Selectivity As A Route to Resolution in Single Component Determinations via HPLC," at the Pittsburgh Conference in New Orleans this year. Jeff stopped briefly at the department between flights on his way back to Berkeley.

#### 1976-77

- *Marion Dattilo*, B.S., works for the U.S. Bureau of Mines in Rolla, Missouri, as a research chemist. He works on electrodeposition, corrosion and zinc recycling from oxide wastes. He is married to Jerri Davis (B.S., 1978) and they live on 40 wooded acres of land nine miles northwest of Rolla with their two children.
- *Victor Granat*, B.S., is Chief Criminalist for the St. Louis County Crime Laboratory. Vic recently appeared on local TV news when he was interviewed

about the currently proposed use of human DNA for identification purposes. **1979-80**

- *D. Steven Lambert*, B.A., is Systems Development Manager for Lever Brothers Company in New York City. Steve is currently finishing his M.B.A. degree at New York University.
- *Clarice Rieser*, BA, is a representative for Curtin Matheson in Columbia Missouri. "Charlie" is married and lives on 4 acres of land with her husband Richard, in Hallsville, just north of Columbia, Mo. She previously was with the Veteran's Hospital and most recently Taylor Chemical Co. She stopped by the department recently on her way back to Columbia from a business meeting in West Palm Beach, Florida.

#### 1977-78

- *Jerri V. Davis*, B.S., works for the U.S. Geological Survey, Water Resources Division in Rolla, Missouri. She is a hydrologist and Missouri District water quality specialist. Jerri is married to Marion Dattilo (B.S. 1977) and they have two daughters, Emily (4) and Rose (1).
- *Dennis Delfert*, B.A., is now at Abbott Laboratories, near Chicago. Dennis, who lives in Liberville, Illinois, is Project Manager, Cancer Product Development. He joined Abbott after completing his post-doctoral research at Washington University and is now involved in both assay and instrumentation development for tumor markers.
- *Mary Hitt*, B.S., is a post-doctoral fellow at the Royal Postgraduate Medical School, Hammersmith Hospital, in London. She is in the Virology Department, funded by an NIH training grant and she doing research on identification of transforming genes encoded by Epstein-Barr virus. Mary received a Ph.D. in Biochemistry at UC-Berkeley in 1986.
- *William VanArsdale*, B.S., (Ph.D. 1983) is still chemistry chairman at the University of Houston-Clear Lake. Bill and his wife Joanna recently had their third child, a boy.

#### 1978-79

- *Bruce Ritts*, B.S., (M.S. 1982), is a research group leader at Petrolite in St. Louis. Bruce teaches a course at Florissant Valley Community College in the evenings in Industrial Chemistry.
- *John Taylor*, B.A., is Research Associate in narcotic research and process development at Mallinckrodt Inc. in St. Louis.

- *Razia Ahmed*, Ph.D., now lives in Tallahassee, Florida. She works for the State of Florida for the Department of Environmental Regulations.
- *Ali Bazzi*, Ph.D., is Senior Research Chemist, Specialty Organics, in the Catalyst and Performance Division at Mallinckrodt Inc. in St. Louis.
- *John Bookstaver*, B.A., received a Ph.D. from Washington University in 1986

#### 1980-81

- *Teresa Blase*, B.S., is a medical student at St. Louis University. She expects to graduate in May 1989.
- *Normand DelCastillo*, B.A., is owner of two companies in St. Peters, Missouri. They are KWIK-KOPY PRINTING and MIDWEST OFFICE PRODUCTS. Norm received an M.B.A. at UM-St. Louis to prepare him for this career.

#### 1981-82

- *Mary K. Hays*, B.S., received a Ph.D. from Washington University last year and is now doing a post-doc at the University of Rochester. Her doctoral degree was with Professor Bleeke and her post-doc work is in Richard Eisenberg's laboratory.
- *Greg Lumetta*, B.S., (Ph.D. 1986), is still at the University of Texas Health Center on a post-doc. He recently presented a paper at the Southwest Regional Meeting of the ACS in Little Rock on some N-substituted-6 imidoacetate complexes of platinum(II).
- *Susan Moritz (Auinbauh)*, M.S., is a Senior Research Chemist at Monsanto. Last time we heard Sue was on maternity leave; she gave birth to a daughter Kimberley in November 1986.
- *Gregory Noelkin*, B.A., is Manager of Quality Control at the Petrolite Corporation in St. Louis.
- *Jerry Orlando*, B.S., is now at Meta Trace in St. Louis.
- *Dennis Parazak*, B.S., (M.S. in May 1987) is a Research Chemist in the Special Products Section at Petrolite in St. Louis. Dennis has published several papers recently in the area of polymer chemistry and also in analytical chemistry.
- *Sione Puloka*, B.A., works for Ralston-Purina. He is Quality Control Manager for the Van Camp Seafood Tuna Packing Plant in Pago Pago, American Samoa.

- *Jerry Ronecker*, B.S., is currently enrolled in St. Louis University Law School. Jerry worked for Monsanto after graduating from UM-St. Louis and did some part-time graduate work in biology also at UM-St. Louis.
- *Suzanne Saum*, B.S., recently received her Ph.D. degree from Washington University. Sue worked with George Stanley and is currently looking for a job.
- *Karl Seper*, B.S., received a Ph.D. degree from the SUNY-Albany last year under the direction of Dr. John Welch. His productive thesis research (6 papers) was followed by a year at the Free University of Berlin working in the laboratory of Konrad Sepelt. We saw Karl at the ACS meeting in New Orleans and recall that he had an offer from Occidental Petroleum.
- *Chandrasiri Somawardhana*, Ph.D., is on the staff of the King Faisal Specialist Hospital and Research Center in Riyadh, Saudi Arabia. Sam works in the Radionuclide and Cyclotron Operations Department.

#### 1982-83

- *Colleen Jonsson*, B.A., is a graduate student in biochemistry at Purdue University. She holds a USDA Fellowship in plant biotechnology and is working on plant molecular biology and biochemistry, with an emphasis on the disease response of the plant at the molecular level. Colleen spent two years as a research biologist at Monsanto between graduating from UM-St. Louis and going to Purdue.
- *David Main*, B.A., works for McDonnell-Douglas in Huntington Beach, California. He is an aerospace engineer working on finish systems for space stations and satellites. Dave is a part-time coatings consultant and recently published an article in "Roads and Bridges" magazine (Nov. 1986).
- *Joseph Muo*, B.S., works as a Medical Technologist at St. Mary's Health Center, GI Research Laboratory, on Clayton Road. Joe continues to work on a range of research problems and he keeps us informed on his progress. He also works part-time at St. Mary's Hospital in East St. Louis on drug analysis.
- *Dawn (Johnson) Shiang*, B.A., expects to receive her Ph.D. degree from UM-St. Louis in May of this year. Dawn works in Professor Murray's laboratory on epoxidation reactions using dimethyldioxirane. She will go to Penn State this summer to do post-doctoral research with Professor Gordon Hamilton.
- *Kim (Rankin) Huelskamp*, M.S., was working at Sigma in St. Louis last we heard. Kim took time out to have two children and is now back into chemistry.

#### 1983-84

- *Brenda S. Fuerst*, B.S., is at the USDA Laboratory in St. Louis. She is a chemist in the Food Safety Section.
- *Ray Lorton*, B.A., was a quality control technician at Peck Products in St. Louis and now is Plant Manager of the new Bulk Materials facility of J. F. Daley International Ltd. This company is owned by Pech Products and is located in the old James Varley plant. Ray was a auto mechanic for many years when he was attending the University.
- *Kathy Riggio*, B.S., works for KV Pharmaceutical Company in St Louis as a chemist in the quality assurance laboratory.
- *William Shiang*, B.S., expects to complete his Ph.D. degree in August at UM-St. Louis. He is working with Dr Winter and he already has lined up a post-doctoral position at Penn State so he has added impetus to finishon time! Bill was the first Mallinckrodt Fellowship awardee (see elsewhere).
- *Barbara Willis*, B.A., is now a fourth year student in the UM-St. Louis School of Optometry. Barb did some tutoring in the new course in organic chemistry for nursing majors for the first four years it was offered. She recently spent her externship at Fort Leonard Wood, at the UM-St. Louis Optometry Center on Lindell, and most recently at the New Life Evangelistic Center.

#### 1984-85

- *Floris Homan*, B.S., is a fourth year graduate student at UM-St. Louis. He works in Dr Garin's laboratory. Floris married Peggy Ponzar (B.A. 1985) last Fall.
- *Peggy Ponzar*, B.A., is now Mrs. Floris Homan. She works at the St. Louis County Health Department.
- *Judy Morris*, B.S., is a research chemist for Monsanto/G. D. Searle in St. Louis and works in protein/peptide chemistry using sequencing, HPLC and standard biochemical techniques.
- *Mee Jung*, B.A., lives in Bellflower, California. She works for Hanjin Container Lines, Ltd and is in charge of documentation.
- *Ella Jones*, B.A., is a research technician at the Washington University School of Medicine. She is involved in protein chemistry.

- *David M. Regan*, B.A., is now technical director for the Carter-Waters Corporation in Kansas City. The company produces construction materials. Dave went to work for Ciba-Giegy after graduation.
- *Timothy K. Tolley*, B.S., is a research technician at Washington University School of Medicine. Tim recently was coauthor of a paper presented at the Annual Scientific Meeting of the American College of Cardiology.

#### 1985-86

- *Jean L. Brielmaier*, B.S., spent some time with ITT Blackburn after graduation, then was with Monsanto for a while and now is a sales person with St. Louis Valve and Fitting Co.
- *Julia Sicking*, B.A., is at the Ethyl Petroleum Additives Division of the Ethyl Corporation in St. Louis.
- *Lisa L. McChesney*, B.A., is now in the Department of Pharmaceutical Chemistry at the University of Kansas working toward her Ph.D. degree.
- *Shari Menefee*, B.A., is a graduate student in the Ph.D. program at Washington University in St. Louis.
- *Richard C. Wisneski*, B.S., is now working at Mallinckrodt Inc. in St. Louis. He is an assistant process engineer and much of his work involves analytical chemistry.

#### 1986-87

- *Stephen A. Kolodziej*, B.A., is now in the Ph.D. program at UM-St.Louis.
- *Ravi Kumar*, Ph.D., is now a post-doc at the University of Western Ontario, Canada, working in Richard Puddephatt's laboratory. Ravi spent a year doing post-doctoral research at Boston College with Michael Clarke.

#### 1987-88

- *Michael VanNorman*, B.A., is in charge of quality control and inventory control at Peck Products in St. Louis.

### Help Wanted

We have no information on the alumni listed below. We hope that some of you will help us by including the information on the form at the end of this newsletter.

- |                   |                           |
|-------------------|---------------------------|
| David Chui        | Robert Cushing            |
| Donna K, (Davis)  | Deitrich Mollie Freebairn |
| Dennis Fortune    | Elizabeth Galie           |
| Ronald L. Goehler | Samuel Gershman           |
| Elizabeth Keath   | Lucky Kelley              |
| William Keyes     | Jacqueline Givens         |
| Joseph Kern       | Rich Kinast               |
| Paul F. Max       | Roger Littge              |
| Saied Naqui       | John Nestor               |
| William F. Paton  | Henry Placke              |
| Sydney Radar      | Carol L. Reinhardt        |
| Paul Rains        | Richard Rush              |
| Hassan Saleh      | Gary Schilling            |
| Patricia Skewes   | Raymond Skosky            |
| John Smith        | Steven Stanfield          |
| Kun-Yung Tsai     | Terry L. Ward             |
| Thomas Weatherby  | Robert J. Zehr            |

### Twenty Fifth Reunion of the Class of 1967

A reception was held on September 26, 1987 to celebrate the 25th anniversary of the graduation of our first class. Unfortunately none of the chemistry alums were able to attend. Only one chemistry member of that class lives in St. Louis. About 50 members of the class of '67 were in attendance plus several faculty members including Charlie Armbruster and me. Several dignitaries were there including Chancellor Barnett and Ward Barnes who was Superintendent of the Normandy School District when it was instrumental in establishing the St. Louis campus of the University of Missouri.

Both Charlie and I made some comments during the formal part of the proceedings. I decided to reproduce the brief remarks I made for the benefit of the members of the class of '67 who could not attend:

"I feel particularly pleased to participate in the honoring of the Class of '67, since the 1966-67 year was my first year at UM-St. Louis. Those were very different times. Class sizes in introductory chemistry courses were very large primarily because chemistry, among the sciences, was developed first, followed by biology and finally physics. Thus students had few options in meeting the science requirement.

The student body was very unusual. Many male students were in school or they were drafted and sent to Vietnam. Thus there was a great fear by male students of "failing" because dismissal from college usually meant a trip to Southeast Asia. Indeed our involvement in Southeast Asia was the main reason for establishing the "Non-western" requirement, and it persists today as the "Non-Euro-American studies requirement".

It is particularly appropriate for a chemist to comment at this occasion. My department has seen some success over the years at UM-St. Louis and I believe that success can be traced to the successes of the members of the class of '67. That class set the standards for those students who followed and the faculty members who guided them. Clearly there was never a class which received so much attention as did the class of '67 by the eight regular faculty members and a couple of part-timers. Of the eight students who graduated in June 1967, seven went immediately to graduate school (to the best of knowledge), and all have seen major successes in their careers. The members of that class are: Reginald Beal, Gary Bernstein, Gary Henrich, Dave Henton, Lloyd Hill, Tom Jenkins, Don Kaesser, and Carol Reinhardt. Six of this group now hold the Ph. D. degree! Unfortunately Gary Bernstein was killed in a small airplane crash in the 1970s. What an excellent example this class set for the succeeding generations of students!"

I went on to acknowledge the remarkable contribution made by Charlie Armbruster in the development of the chemistry department and indeed the institution. A pity that our members of the class could not attend but we did receive some letters and calls from them.

## Graduates 1987

### June 1987

- Douglas Augustin M.S.
- Dorothea Bean M.S.
- Louis R. Feldenberg B.A.
- Rita M. Hagedorn B.A.
- Stephen J. Kolodziej B.A.
- David Lay M.S.
- Thomas G. Makara B.S.
- Steven M. Massey M.S.
- Michael C. Merriman B.S.
- Michelle A. Nixon B.S.
- Dennis Parazak M.S.
- M. Chris Preis B.A.
- Paul J. Rachubka B.A.
- Alan Schneider B.S.
- Bill M. Schmitt B.A.
- Thomas P. Simpson B.A.

- Theodore R. Smentkowski, Jr. B.A.
- Samuel Smith M.S.
- Tianhe Zhu M.S.

### August 1987

- Jerry Davis B.A.
- Joseph Groaning B.A.
- Christy S. John Ph.D.
- Joseph Poett B.A.
- Emilie Smith B.S.

### December 1987

- Brian Barrett B.S.
- Gregory Bradburn M.S.
- Lisheuh (Sherry) Chang Ph.D.
- Barbara Berglund B.A.
- Susan Holl B.S.
- Chitase Lee M.S.
- Ko-Chung Lin Ph.D.
- William L. Neuman Ph.D.
- John Pratt M.S.

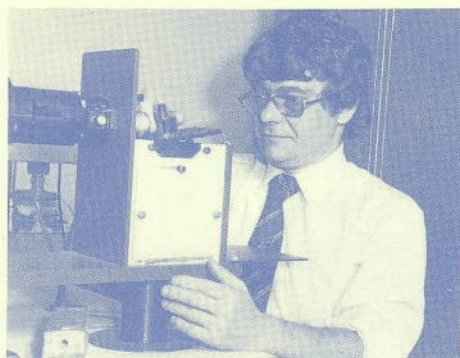
## 1987-88 Departmental Awards

### *Undergraduate*

As many of you know, each year the Department of Chemistry honors a few of our outstanding undergraduate students. This year the Alan F. Berndt senior award will be presented to Mr. William Lesko. Alan Schneider was awarded this award last year. Alan graduated with a B.S. degree magnum cum laude in May 1987. He also won the Outstanding Junior Chemistry Major Award - administered by the St. Louis Section of the ACS in 1986. Alan did research in Dr. Garin's laboratory during his senior year. He is now a first year graduate student at Iowa State University where he is a Noble Hines Fellow, the highest award accorded new graduate students. This year the Outstanding Junior Award will be given to Ms. Alicia Beatty. Before the end of the year, we will be selecting the best student in freshman Chemistry for the CRC-sponsored Freshman award, and the outstanding student in Analytical Chemistry for an award sponsored by the Analytical Division of the ACS.

The Department has also initiated an undergraduate research fellowship in honor of the late Professor Eric





*1988 Distinguished Alumni Lecturer Professor Sanford A. Asher (B.A. 1971)*

Brunngraber. The Brunngraber fellowship is supported by generous donations from Eric's family, friends, and colleagues. Many of you knew and worked with Professor Brunngraber, and if you wish to contribute to this activity, your donation will be sincerely appreciated. This fellowship will be awarded for the first time for the 1988-89 academic year.

#### *Graduate*

As mentioned earlier, Mr. Bill Shiang was awarded the Mallinckrodt Graduate Fellowship for 1987-88. Bill is a Ph.D. student with Professor Winter. We also plan this year to initiate an outstanding teaching assistant award to honor the graduate student considered to be the best at this extremely important activity.

#### *Alumni*

The Department of Chemistry is extremely pleased to announce that Professor Sanford A. Asher of the University of Pittsburg has been selected as the outstanding Chemistry Alumnus for this year. Dr. Asher will be giving an awards lecture on Monday, May 2 after which we will be formally presenting all of the awards listed above. Sandy received his B.A. degree in Chemistry from UM-St. Louis in 1971, and his Ph.D. degree in 1977 from the University of California, Berkeley. While at Berkeley he was involved in the development and application of new spectroscopic techniques to structural and excited state properties of porphyrins and heme proteins. Following a research fellowship in Applied Physics at Harvard, Sandy joined the faculty at Pittsburg in 1981 where he is currently Associate Professor. His current research interests are in the development of novel instrumentation, Raman spectroscopy, and the application of spectroscopic techniques to a wide variety of molecular systems. Sandy has received an NIH Career Development award, and an American Heart Association Established Investigator award.

We plan to invite one of our distinguished alumni back

each year to present a seminar and participate in our awards ceremony. If you would like to suggest someone, please let us know.

## The Faculty

- **Gordon K. Anderson** spent last semester on a research leave. He remained in St. Louis, working on a joint project with his co-NATO Fellow Ronald Cross of the University of Glasgow. Gordon presented a paper at the 3rd International Conference on the Chemistry of the Platinum Group Metals last summer and he will present another at the 3rd Chemical Congress of the North American Continent in Toronto in May.
- **Charles Armbruster** has served as Interim Director of the Center for Science and Technology this year. Charlie had surgery for a herniated disc this winter and thus has not been tremendously active, but he is recovering. It is only a matter of time before we see him on the racket ball courts again.
- **Lawrence Barton** has been very busy writing Alumni Newsletters, working on North Central Association Reports, recruiting, serving on various committees, and trying to keep track of problems associated with the Science Complex. He will, however, present a paper at the first Boron-USA Workshop in Dallas in April.
- **James S. Chickos**, has been appointed to the editorial board of the new journal "Structural Chemistry". Jim is currently in the middle of a most productive period in his research. He continues to work on deuterium isotope effects in thermal reactions but he tells me that his work on the estimation and measurement of heats of sublimation and vaporization of organic molecules attracts the most attention. He is also involved in the synthesis of deuterium-labelled organic compounds, collaborating with several research groups around the world.
- **Eugene Corey** has seen the fruits of his (and Joyce's) work on the VIIIth International Symposium on Organosilicon Chemistry held in St. Louis last year. The symposium volume, co-edited by the Corey's and Peter Gaspar of Washington University, has just appeared and the accolades are coming in.
- **Joyce Corey** had two Ph.D. candidates graduate this year. Sherry Chang, who work on Si-Si bond formation, is now a post-doc at Tulane University and Christy John, who worked on pseudo-silatrane, is now a post-doc at UM-Columbia. Work on both these projects was recently published.

- **Valerian D'Souza** has set up his research laboratory temporarily in 259 Benton Hall but he is looking forward to moving into the new laboratories where he will have much better facilities. He has established a research group which includes a graduate student and several undergraduates and recently installed his new Varian 2200 UV-Vis Spectrometer for use in his research on miniature organic models of enzymes.
- **David Garin** is on leave this year. In the fall he was in the Environmental Sciences Center at Monsanto and currently he is at the Washington University School of Medicine working in the laboratory of Professor Fred Sweet.
- **Harold Harris** is chairman of the UM-St Louis Senate for the 1987-88 academic year. Last spring he was awarded a University of Missouri intercampus Weldon Spring research award joint with John Adams of UM-Columbia, for the study of energy transfer within small molecules.
- **M. Thomas Jones** has held most of the jobs in the administration this year. He has been Interim Associate Vice-Chancellor for Academic Affairs, Assistant to the Chancellor for Budget, Planning, and Institutional Research and is now Deputy to the Chancellor. In spite of this Tom has maintained his active research program. He is currently working hard to establish the "Center for Molecular Electronics".
- **David Larsen** helped organize the First Missouri NMR Symposium held in Rolla, Missouri, last fall. The symposium was funded by a joint Weldon spring grant awarded to three UM chemists. Dave presented a lecture at the inaugural meeting of what will become an annual event. The next symposium will be held in St. Louis in Fall, 1988.
- **Jane Miller** is currently very busy arranging the conference "Expanding your Horizons in Science and Mathematics" to be held later this month. The conference is for young women and is designed to increase their interest in mathematics and science and to foster awareness of career opportunities in these fields. Dr. Miller is the new Alumni Relations Coordinator for the Department.
- **Robert W. Murray's** recent research in organic oxidation chemistry has centered on the chemistry of dimethyldioxirane. The work, supported by grants from the NIH and ONR, has recently demonstrated that the reagent will convert secondary amines to nitroxides. The latter are stable radicals and are being used with increasing frequency as labels in biomedical studies. The synthetic procedure discovered by



*Dr. Larsen describes his attempts to monitor the water content of pine seedlings using a home made NMR spectrometer to Curator James C. Sterling, Chancellor Barnett, and Dr. Barton*

the Murray group appears to be superior to other known methods. The work was initiated by Dr. L. Mohan and is now being pursued by Dr. M. Singh.

- **James P. Riehl** continues his research in circularly polarized luminescence spectroscopy. He presented a paper in Beijing, China, last summer on applications of CPL to biochemical problems. By replacing calcium ions with terbium ions on the protein calmodulin, which serves to transport calcium in living systems, he can record the luminescence from the terbium and observe conformational changes in the protein.
- **John Schreifels** will be presenting two papers at the meeting of the National Association of Corrosion Engineers, to be held in St. Louis later this month. The work is in collaboration with colleagues at Petrolite in St. Louis.
- **Michael Sworin** recently had two of his students complete their Ph.D. degrees. Bill Neumann is now at Mallinckrodt in St. Louis and Ko-Chung Lin is now doing a post-doc at the University of Michigan with Professor W. H. Pearson.
- **William Welsh** has firmly established computational chemistry as a major activity for students at all levels as well as for faculty and graduate students. Bill was recently awarded a grant by the National Institutes of Health to support his research in the design of anti-cancer drugs.



Dr. Riehl describes the computer network to Curator Sterling

- **Rudolph E. K. Winter** has been assigned the Monsanto Post-doctoral Fellowship funds this year for his studies on stress chemical production in nematode-caused pine-wilt disease. Dr Winter ran the NSF/Monsanto-sponsored undergraduate research program last summer.

### New Faculty

**Wesley R. Harris** will join the department as associate professor of chemistry in the Fall. He is currently assistant professor of chemistry at the University of Idaho. Dr Harris' research involves metal ion exchange kinetics with serum transferrin, formation constants for metal-protein complexes, as well classical coordination chemistry. He received his Ph. D. degree with A. E. Martell at Texas A. & M. University and did post doctoral work at UC- Berkeley with K. N. Raymond. He has also held appointments at SRI International and the Laboratory for Energy-Related Health Research at the University of California-Davis. He is married and he and his wife Marion have one child. He currently has external funding from the NIH for the study of the project: "Mechanism of Iron Removal from Serum Transferrin".

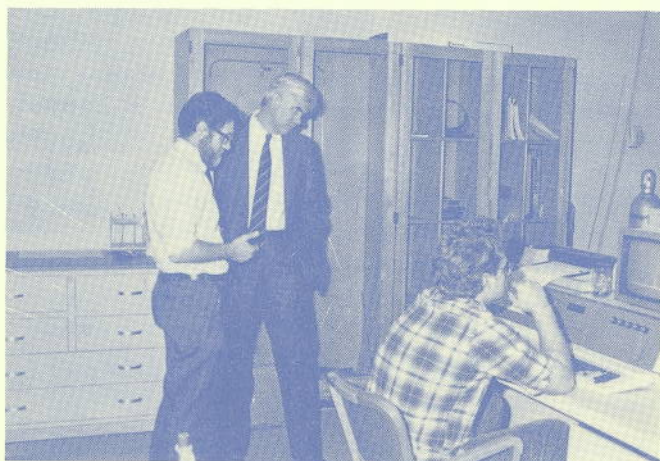
**James J. A. O'Brien** will join the faculty as assistant professor of chemistry in the Fall. Dr O'Brien, a physical chemist, is currently a post doctoral fellow at the University of Arizona. He was born in Australia and received his Ph. D. from the Australian National University in Canberra. He came to the US as a CSIRO Post doctoral Fellow at the Lawrence Berkely Laboratory of the University of California. He was an NRC Research Associate at the National Research Council in Ottawa, Canada prior

to joining the group of Professor George Atkinson in Arizona. Dr. O'Brien is interested in intracavity laser spectroscopy applied to problems involving chemical vapor deposition, overtone absorption spectroscopy, transmission along optical fibers, effects of optical feedback, and species produced in supersonic jet expansions. He is married and his wife Leah is also a chemist and currently is a post doctoral fellow at the University of Arizona involved with molecular spectroscopy of small molecules.

### Staff

This year I decided to include the staff since they are truly an integral part of the departmental operation.

- **Betty Eshbaugh**, Administrative Secretary, continues to ramrod the department, making sure we don't overspend and keeping track of the chairman's activities.
- **Bob Cabaniss**, Scientific Glassblower, is looking forward to expanded facilities when the science complex is complete. Whenever there is a flood on a floor above most of the water seems to percolate down into the glass shop and Bob hopes that will end when he is moved up to the fourth floor.
- **Ted Windsor**, Senior Electronics Technician, continues to be an invaluable asset to the department. When introduced to guests he describes himself as "general flunky". Of course that really means that he will tackle just about any job he is asked to do.
- **Dietra Lott**, Secretary, is currently on maternity leave Her first child, James Joseph, was born on March 10. Dietra, who has been with the department for 10 years has become an expert word-processor and she will be missed over the next few months.
- **Joe Kramer**, Electronics Technician, continues to run the mass spec lab which has been expanded with the addition of the Hewlett-Packard GC-MS.
- **Randa Schneider**, Clerk Typist, who has now been with us for six years, came to St. Louis from Quincy Illinois. She is originally from Lebanon and came to St. Louis with her husband Mike who subsequently earned a Ph. D. in psychology at UM-St. Louis.
- **Jim Wheatley**, Stockroom Supervisor, will graduate this year so we will be replacing him in the near future. We are purchasing a new computer terminal for the stockroom. Jim recently computerized the inventory.
- **Sylvia Stephens**, Secretary, is filling in while Dietra is out. There is a good chance that Sylvia will remain with the department permanently.



Curator Sterling and Dr. Barton watch graduate student Floris Homan operate the Varian XL-300 NMR spectrometer.

## Message from the Graduate Students

Recent tax law changes are presenting problems for former and current teaching and research assistants in the Department of Chemistry. Several current students are being audited by the IRS and are in the process of collecting information to help their cases. There appear to be documented tax court cases which support that Research Assistantships are not taxable if the appointment was made prior to August 1986. Teaching Assistantships also may not be taxable. If you have been a TA or RA in the last three to four years, you can receive a copy of the information we have gathered by calling the Department of Chemistry.

Other new laws have affected the ability of graduate students to obtain student loans - money received as a TA or RA is now considered by the UM-St. Louis Financial Aid Office to be money contributed by the government directly for your education. Therefore, if you earn \$7200 as a TA, and apply for \$7500 in from the guaranteed student loan program, (the current maximum), you will be found eligible for a \$300 loan! Amazingly, if you were to earn \$7200 off campus, you would be eligible for nearly the entire \$7500 loan!

These new financial burdens have increased the difficulties associated with graduate studies at all institutions ; new students are becoming discouraged, and the prospects for recruitment of graduate students to assure that the US continues to assert itself as a major technological power become much less promising. Please, if you are concerned with these issues, which affect the future of higher education as well as that of chemistry in industry, write your Congressman and Senator.

We continue to hold our unofficial gatherings at Whalen's (often) and Blueberry Hill (once a month). There are a lot of familiar faces and some new ones. If you are in town why not join us some time. (contributed by Dee Lange and Jim Roble).

## Contributions 1987/88

Since the last issue of the UMSL CHEMIST, we received \$2,450 in contributions to the Alumni Gift Fund and another \$650 split between the Alan F. Berndt Senior Award Fund and the Brunngraber Memorial Fellowship Fund. We have listed the names of those who contributed below:

### \$500.00 and above

Virginia Martin  
Leslie Kalman  
Greg Przygoda

### \$250-\$500

Joseph Muo

### \$100-\$250

David Vreeland

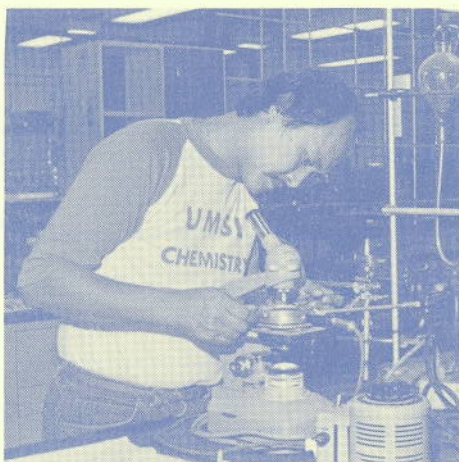
### \$50-\$99

Kathy Cammack  
Susan Jansen  
James Varnum  
Andy Hillicker  
Sue Metz  
Judith Taylor

### 0-\$50

D. Steve Lambert  
Steven Staat  
Dennis Patterson  
Dennis Parazak  
Marie Mrad  
John Taylor  
Phillip Asaro  
Barbara Willis  
Mary Hitt  
Helen K. Janoski  
Lee Gori  
Steve Sprinkle  
D. W. Wester  
Judy Morris  
Sue Moritz(Auinbauh)  
Steve Mertens  
Bruce Ritts  
Jerri Davis  
John Koenig  
Lisa L. McChesney

Several alumni work for corporations which will match contributions. We have been the beneficiaries of about another \$300.00 although some of the matching funds are still in the pipe-line. We hope you will continue to help us. Several former students have been very helpful to us in providing surplus equipment. Among these are Ali Bazzi, Bob Dittrich, Mike Finkes, Brenda Fuerst, Harold Messler and Margaret Aldy.



*Graduate student Bill Shiang*



*Dr. Winter explains chromatography to Curator Sterling.*

One continuing use we make of these funds is to support "Chemistry Alumni Research Fellowships" which are used in the summers. This last summer two such fellowships were awarded. One to John Boylan for the project: "Phosphorus-31 NMR Studies of Acute Kidney Failure", the other to William L. Neumann for the project: "The Development of Synthetic Methodology for the Preparation of Polycyclopentanoid Natural Products." John works with Dr. Larsen and expects to graduate this summer. He has already lined up a post doctoral appointment at Boston University. Bill just completed his Ph. D. degree with Dr. Sworin and is now at Mallinckrodt in St. Louis. We also provided supplements to graduate students receiving Graduate School support.

As we indicated last year, we used \$1,000.00 from the Alumni Gift Account to help set up the E. G. Brungraber Memorial Fellowship. The Alumni Activities Office also contributed \$100.00 to this fund which will support undergraduate research.

We depend on you for support but not only for financial support. As voters you can help improve the level of funding for higher education in Missouri. As colleagues in industry you have assisted us in improving our standing with corporate management and as members of the community you can help improve our image there by being successful and letting your neighbors know where you received your degree(s). Many of you have steered surplus and other equipment in our direction; others have encouraged colleagues to return for graduate work here or to send their children here. We appreciate all of this and look forward to closer interactions with you in the future. As our program develops and our reputation grows your degrees become more valuable than ever so it is in all interests to help the institution.

If you decide to make a contribution please do so by

using the enclosed form. If you are unable to make a contribution please complete the "Information Update".

## PLEASE DON'T FORGET THE ALUMNI RECEPTION

You are invited to attend the Fourth Annual Chemistry Alumni Reception. It will be held at the Alumni Center, 7956 Natural Bridge (across from Woods Hall) at 7:00 pm on Friday, April 15. Refreshments will be provided. Please let us know if you can attend. Call Randa Schneider at (314) 553-5311, Monday through Friday, 8:00 am to 5:00 pm.

L. Barton, Editor

INFORMATION UPDATE

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

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

Current Mailing Address: \_\_\_\_\_

Employer \_\_\_\_\_

Current position and Activities \_\_\_\_\_

Other \_\_\_\_\_

UM-St. Louis Chemistry Alumni Fund

Enclosed is my contribution of \$ \_\_\_\_\_

\_\_\_\_\_ Yes, I work for a matching gift corporation.

Designation for funds

E. G. Brunngraber fellowship \_\_\_\_\_

A. F. Berndt Senior Award \_\_\_\_\_

Other \_\_\_\_\_

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

Lawrence Barton  
Chemistry Department  
UM-St. Louis  
St. Louis, Missouri 63121