



UMSL CHEMIST

8001 Natural Bridge Road - St. Louis, MO. 63121

VOL. 5

MARCH 1987

Chairman's Message

This is the third UMSL Chemist we have published since it was reestablished in 1984. The response to it has been excellent. We hope you will continue to contact us, to inform us of your activities, successes, etc. and to give us information about colleagues with whom we have not been in touch. I hope that the interest you find in reading the Alumni Information section following approaches the enjoyment I had in writing it. Having been at this institution since the first graduating class in 1966/67, it is most rewarding to pass on your various activities and successes.

There have been some very significant developments at UM-St. Louis this last year and we expect many more changes in the near future. On June 1st Dr. Marguerite Ross Barnett became our fifth Chancellor succeeding Chancellor Arnold B. Grobman who held the position for ten years. Chancellor Barnett was most recently Vice Chancellor for Academic Affairs at the City University of New York. A political scientist, she was educated at Antioch College and the University of Chicago and she has held faculty positions at Columbia University, Howard University and Princeton.

The campus has seen some major unprecedented achievements in the nine months Chancellor Barnett has been with us. She launched a major budget and policy initiative entitled "Partnerships for Progress" shortly after she arrived here. This is an ambitious attempt to forge links with the community, namely: area high

schools, the business and industrial community, and the other academic institutions. Earlier this year the Monsanto Company became the first partner by contributing \$500,000.00 to the program. Last year, Governor Ashcroft vetoed part of the Thomas Jefferson Library expansion budget, stating that the institution should raise \$1.2m of the funds, before he would recommend the balance. Chancellor Barnett soon convinced the McDonnell-Douglas Foundation to award a \$500,000.00 challenge grant. The challenge was that the institution had to raise the additional \$700,000.00 before the funds would be released. Last week Chancellor Barnett announced that Anheuser-Busch and Emerson Electric had agreed to contribute \$350,000.00 each. We now expect that the additional \$2.8 m required for the project will be released by the state. The library expansion will be located to the west of the Thomas Jefferson Library.

The progress of the Science Complex has been slower than we had anticipated. Last Fall the US Department of Education awarded UM-St. Louis a \$500,000.00 grant towards the project; that, however, caused a delay since the Feds. had then to approve the plans. The building is currently out on bid and details are given elsewhere in this issue.

We suffered a severe loss on February 18th when Professor Eric Brunngraber passed away. This is also amplified elsewhere in this issue. We have decided to establish an undergraduate research fellowship in his honor and intend to earmark certain

alumni contributions and other gift funds for this purpose. Eric had recently been formally transferred to UM-St. Louis from the UM-Columbia faculty and his aim was to help us establish a biochemistry program here. A colleague put it best when he remarked that Eric had the knack of making us feel good about ourselves. He had such a high opinion of the department, i.e. the students and the faculty. That was a real compliment coming from such a distinguished chemist as Eric.

We are pleased to announce the newest faculty member. Dr. Valerian D'Souza, a bioorganic chemist, will join us next Fall. Dr. D'Souza was born in South Kanara in India and received BS and MS degrees from the University of Bombay. The recruitment of Dr. D'Souza marks the beginning of our ten year plan to achieve "eminence". At the moment the chancellor is trying to figure out where the rest of the funding will come from.

This last year has seen dramatic changes in the departmental research facilities. The new NMR lab, despite a recent problem which resulted in our having to send the probe to California, has functioned well for a year. The new computer network has been installed. It comprises two Microvax II computers, one Vaxstation II, one microvax I, ten DEC terminals, about fifteen IBM-PC (or clone) microcomputers and fifteen HP terminals. All of this equipment is accessible from any node on the ETHERNET based network. The network also includes a Vax 8600 with floating point acceleration connected by an optical fiber. This installation was made possible as a result of a one-time appropriation of state funds. Professor Riehl was involved significantly in the selection of this equipment which brought us from nowhere to state-of-the-art computation facilities in the space of one year. Shortly we will install the Harris 800 computer. It will go in the back of the X-ray room. It was obtained as a grant from the Harris

Corporation. The value of the system is \$330,000. Professor Riehl spearheaded the proposal with input from Professors Harris, Jones and Welsh. The state has a program of matching industrial grants and we currently have a proposal pending for funds through the so called Missouri Research Assistance Act. This computer will be used for large computations. We have also received most valuable equipment declared surplus by local industry. Much of this came as a result of contacts made by alumni. This last year we received a GC-MS system, several GCs, HPLCs, integrators, recorders, computer terminals and data stations, dry boxes and an array of other most useful items. In January we picked up from Monsanto about six laboratories of furniture, including benches, hoods, monkey bars, etc. to be used in some of the spaces in the New Science Complex. We certainly appreciate the efforts of those of you who made all this possible.

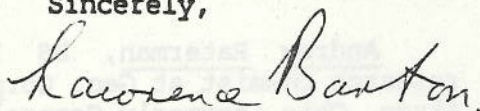
We held the first meeting of the UM-St. Louis Chemistry Industrial Advisory Council last Fall. It went very well. Each of the companies was represented by a relatively senior executive or director and one of our alumni. It is most pleasing to note that this distinction is a very fine one and in many cases non-existent. Our alumni members of the Council have been very helpful and supportive. One way to help support your alma mater is to keep us informed of your successes. Your successes are our successes and they add to the value of your degree. As your successes grow so does the value of a degree from this department. Knowledge of your activities, positions, promotions, etc. is very helpful to us in convincing the philanthropic and university relations divisions of companies to assist us financially. Other institutions in the St. Louis area and the state certainly outweigh us in the numbers of alumni, but numbers do not tell the whole story!

Please keep in touch with us. Let us know how you are doing, what you think of the UMSL Chemist and how you think we should use the funds in the Chemistry Alumni Account. We hope you will continue to let us know about job opportunities just as you should contact us if you are seeking a change in employment. Those of you who are concerned about opportunities for promotion and/or possible employment mobility should consider enrolling in the part-time MS degree program or perhaps the MBA program in the Business School.

We look forward to seeing many of you at the upcoming reception in the Alumni Center on April 10th at 7:00 pm. Some of you informed us that you are not able to attend these functions. In that case, we hope you will consider attending our Christmas Party on December 18, 1987 also in the Alumni Center or simply stopping by the department when you are in St. Louis. You will find that the campus and Benton Hall have changed considerably.

We wish you all the very best in your careers.

Sincerely,



Lawrence Barton
Professor and Chairman

Alumni Information

We thank those of you who completed and returned the information update in last year's UMSL Chemist and hope that those who didn't will do so this time. A common theme among the responses was that the most interesting feature in the UMSL Chemist was the news about your colleagues. The following includes all the responses we received:

Joseph P. Bono BS 1969, is a

Senior Forensic Chemist in the Naval Investigative Service Regional Laboratory in San Diego. Joe, his wife Barb and their three children spent three years in Naples, Italy, and 19 months in Hawaii before moving back to the States.

Douglas G. Nuelle, BS 1969, graduated with his MD degree, with honors, from Washington University in 1973. After a residency in Memphis at the Campbell Clinic and a stint in the Navy, Doug now practices orthopedic surgery. Doug is a Fellow of the American Academy of Orthopedic Surgery and a Fellow of the American College of Surgeons. Doug, his wife Diane and their child live in Port Charlotte, Florida.

Dorothy Cooke Greco, BS 1971, received an MD from UM-Columbia in 1975. She is now in private practice in general internal medicine at St. John's Mercy Hospital, St. Joseph's in Kirkwood and DePaul Health Center. Dorothy is married to Alfred Greco (BA, Biology, UM-St. Louis, also an MD) and they have four children.

Dennis W. Wester, BS 1971 (see UMSL Chemist 1986), has undergone a title change at Mallinckrodt, back to the technical ladder. Formerly a research manager, Dennis is now a Research Associate but his duties and responsibilities have not changed. He continues to teach part-time for us in the evening and he continues his activities in the local ACS section where he is currently chairman of the Professional Activities Committee.

W. Steve Tait, BA 1972, lives with his wife Sue (BA physics, UM-St. Louis) and two children in Racine, Wisconsin. Steve is a Senior Engineer at S.C. Johnson and Sons (Johnson's Wax). He is a certified corrosion specialist and has published 6 papers on corrosion chemistry and has been awarded 3 US patents. Steve completed an MS in chemical engineering at Washington University in 1977 and has almost completed his Ph.D. in

Materials Engineering at the University of Wisconsin-Milwaukee.

Robert Lamberg, BS 1972, received an MD from Washington University in 1976 and he now is in private practice as an ophthalmologist with offices in Clayton and St. Charles. Bob is a member of the Washington University Alumni Association Executive Committee and a Board Member of the St. Louis Festival Ballet.

Larry Legler, BS 1972, received an MD from Baylor Medical School in 1976. He and his wife have two children and he practices family medicine in Independence, Missouri.

Paul Blystone, BS 1974, is Director of Marketing and Product Development for the Hack Company in Loveland, Colorado. Paul spent four years in research before assuming his current position three years ago. His company does \$40 million in sales per year. He was recently dragged kicking and screaming to Antigua in the West Indies where he presented a paper on "Water Quality Testing Needs for Disaster Planning".

Daniel Stueck, BS 1974, is Manager of Quality Control at Vestal Laboratories. Dan has been at Vestal Labs for 20 years.

Virginia Martin, BA 1974, received an MD in 1978 from UMColumbia. She is now an Assistant Professor of obstetrics/gynecology and reproductive endocrinology at St. Louis University. She is based out of St. Mary's Hospital in Clayton.

Roberta Farrell, BS 1975, received a Ph.D. in biochemistry from Illinois-Urbana and held an American Heart Association Postdoctoral Fellowship at MIT. Birdie, as she was affectionately known, is Associate Director of Research at the biotechnology corporation Replizen in Cambridge, Mass. where she directs a research program in lignin degrading and modifying enzymes. She is married and

has a one-year-old son Phillip.

Daniel R. Henton, BS 1975, is a project leader at Dow Chemical Company in Midland Michigan doing pharmaceutical process research. Dan has a Ph.D. in organic chemistry from Ohio State University. He and his wife have one child and were expecting another when we last heard.

Dan Claudy, BS 1975, is a laboratory supervisor for Mallinckrodt in Paris, Kentucky. Dan and his wife have one child. We understand he may be returning to St. Louis soon.

Paul Sherwin, BA 1976, is a resident in internal medicine at St. Mary's Hospital in St. Louis. Paul received a Ph.D. in organic chemistry in 1982 from the University of Illinois-Urbana, and then completed his MD degree at the University of Miami, FL, in 1985.

Richard A. Hoyt, BS 1976, (see elsewhere in this issue) lives with his wife and three children in Raleigh, North Carolina. Rick is Quality Control Manager for Mallinckrodt's Raleigh General Chemical Plant.

Andrew Raterman, BS 1976, is a research chemist at Gen. Corp. Inc. in Akron, Ohio (formerly General Tire and Rubber Company) and works on metal-catalyzed polymerizations. Andy completed an MS degree at Murray State University in Kentucky, a Ph.D. in inorganic chemistry at the University of Indiana-Bloomington (where we understand he distinguished himself) and completed postdoctoral work at the University of Bristol with Gordon Stone and at Penn State with Harry Allcock.

Vincent Rapini, BS 1976, graduated from UM-Kansas City, Dental School in 1980. Vince is in private practice in St. Louis, is married and has two children.

James B. Troll, BA 1976, is an

analytical research chemist at Norcliff-Thayer in St. Louis. Jim and his wife have two children.

Cheryl A. McClain (Rudloff), BA 1977, is currently Regional Sales Manager at Carboline in St. Louis. Cheryl received an MBA from Washington University in 1983.

Phillip Asaro, BS 1977, who received an MD from St. Louis University is now a family physician practicing in the Souldard neighborhood of St. Louis. Phil is married.

Joseph Bullock, BS 1978, MS 1982, is a research chemist with Monsanto working in the area of peptide chemistry. Joe coauthored two papers recently and presented a paper at an ACS meeting. He lives in St. Peters with his wife and two children.

Timothy J. Wenzel, BS 1978, completed a Ph.D. in organic chemistry with Mel Goldstein at Cornell University and a postdoctoral appointment at the University of California Berkeley. He is now a Senior Chemist with the Union Carbide Corporation in Charleston, West Virginia.

Dennis Delfert, BA 1978, (and also BA biology in 1978) received a Ph.D. in biochemistry from the University of Illinois-Urbana in 1984 and since then has held an NIH postdoctoral fellowship in the Washington University Medical School.

Mark R. Williams, BS 1978, is currently a Group Leader at the Petrolite Corporation in St. Louis. Mark's position involves the direction of 6 professionals in the development and maintenance of crude oil dehydration compounds. His job also includes the coordination of world wide technical service for his company and involves trips to oilfields and refineries throughout the world.

Vincent Chang, MS 1979, previously at Miles Laboratories in Elkhart, Indiana and most recently a

research scientist at the Burroughs Wellcome Company in Triangle Park, North Carolina, is now a full-time student in the Ph.D. program at Duke University.

Deborah F. Bergstrom, BS 1980, is still a graduate student in the inorganic division at the University of Michigan (see UMSL Chemist 1986).

Teresa Blase, BS 1981, spent four years at Monsanto working as a research chemist and did some graduate work in biology at UM-St. Louis prior to entering the medical school at St. Louis University in 1985.

Judy (Yuan Di) Shih, BA 1984, is a graduate student in biochemistry at UM-Columbia. Judy was recently married.

Dennis Parazak, BS 1981, is a research chemist at Petrolite. Dennis was recently a co-author of a paper entitled "Specific Counterion Bonding to Cationic Polyelectrolytes" which appeared in the Journal of Applied Polymer Science. He is near completion of an MS degree in chemistry at UM-St. Louis.

David Miller, BA 1983, is currently a medical student at UM-Columbia. He completed an MS degree in biology at UM-St. Louis after graduation with a joint BA in chemistry and biology.

James F. Essinger, MS 1983, formerly with Monsanto, is now a Technical Supervisor with Stauffer-Wacker Silicones Corporation in Adrian, Michigan. Jim is working on the development of hydrosilation catalysts.

Joseph O. Muo, BS 1983, is a medical technologist at St. Mary's Hospital in East St. Louis, Joe works on pancreatic enzymes: isoamylases, using serum protein electrophoresis and other techniques.

Raymond Lorton, BA 1984, is

quality control chemist but he didn't tell us where. Ray and his wife have two children.

Janet K. Braddock, BA 1985, is a graduate student at Washington University working in Professor Gaspar's laboratory.

The following information was gleaned from a variety of sources. In most cases the source is indicated.

We read in St. Louis Commerce magazine that Sherry Rascovar, BS 1974, is president of Coad, Rascovar and Associates, a consulting engineering company in St. Louis. After graduation, Sherry spent four years in medical related research, and then enrolled as a full-time engineering student at Washington University. Sherry graduated with an engineering degree in 1980.

David L. Beach, our first Ph.D. graduate (1976), is now working with Chevron Chemical Company in Kingwood Texas. On graduation, Dave went to work for Gulf Research and Development Company in Pittsburgh. The last we heard Dave was doing very well as Director of Polyolefin Catalysis but Gulf was taken over by Chevron a couple of years ago. We saw a paper in the February issue of Organometallics on the dynamics of exchange in $\text{Na}[\text{Al}_2\text{F}(\text{C}_2\text{H}_5)_6]$ indicating that Dave is now at Chevron in Houston.

We heard from Pat Armbruster (Muller) BS 1974, that Janet Dobbins, BA 1974, is now Janet Dobbins Place, and she, her husband and child live in South Bend, Indiana.

On a recent visit to the department by Tom Layloff, Director of the FDA lab in St. Louis, we heard that Jettie Travis, BS 1985, is now Jettie Travis Stowbridge and she works at the FDA laboratory.

We read in the business pages of

the St. Louis Post-Dispatch in December 1986 that Sue Hartenback, BA 1982, was appointed manager of maintenance sales for Carboline in St. Louis.

We also read recently in the business pages at the St. Louis Post Dispatch that Charles E. Smith, BA 1982, has joined Sherwood Medical as patent attorney.

Dan Henton informed us that his brother David Henton, BS 1967, is an Associate Scientist at Dow Chemical Company in Midland Michigan. After graduating in the first UM-St. Louis class, Dave completed a Ph.D. in organic chemistry at the University of Kansas. Dan also told us that Dennis Mollman, BS 1974, was a senior resident at a hospital in Minneapolis but was about to move to Kansas City. Dennis received a Ph.D. in organic chemistry at Washington University and then went on to complete his MD degree at St. Louis University.

Charles L. Thierheimer, BS 1980, MS 1984 recently moved to Corvallis, Oregon to take up a research position with Hewlett Packard. Chuck, most recently with Petrolite, was the Petrolite representative on the Industrial Advisory Council and before he left Petrolite he made significant overtures to the top management for greater interaction between our two institutions. We are following up on this. Chuck will continue his membership in the Industrial Advisory Council. He is a very good and valued friend of the department.

The last we heard of James R. Hutton, BS 1969, he was assistant professor of biology at Marquette University. Jim received MS and PhD degrees in biochemistry, both from the University of Illinois-Urbana in 1971 and 1973 respectively. He was a research fellow in biology at Harvard Medical School prior to taking up his position at Marquette. According to American Men and Women of Science, his research area is molecular biology.

We received a letter recently from Gary Jacob, BS 1969. Gary works for Monsanto and is currently in charge of a program involving Monsanto/Searle and Oxford University, which is being implemented within the Department of Biochemistry at Oxford. Gary worked in NMR when at Monsanto in St. Louis but now is isolating and characterizing enzymes associated with oligosaccharide sequencing and glycoprotein synthesis. Gary expects to live in Oxford for three years. He enjoys Oxford. He received his Ph.D. in Biochemistry at the University of Wisconsin-Madison and did postdoctoral work in Europe before going to Monsanto.

We just heard that Susan Jansen, BS 1981, Ph.D. 1985, has accepted a very attractive academic position at Temple University in Philadelphia. Sue completed her Ph.D. research in Tom Jones' lab prior to going on to postdoc with Roald Hoffman at Cornell University. Of course at Cornell she sees Shankar Rananavare Ph.D. 1983 quite often. Shankar, who completed his Ph.D. research with Dave Larsen, spent some time doing postdoctoral research with Stig Friberg at Rolla prior to going on to Cornell where he works with Professor Jack Freed. We understand Sue is about to leave for Sweden to collaborate with Hoffman who is currently on sabbatical leave there.

Rajiv Banavali, Ph.D. 1984, has very recently been offered a position with Rohm and Haas in Houston. Rajiv completed his doctoral research with Bob Murray and went on to do postdoctoral research with Paul Bartlett at Texas Christian University. Rajiv and Mary Susan Heffner were married in St. Louis in December 1985.

Items of news of alumni we have heard from the grapevine are summarized as follows:

Joe Patane, BS 1968, is now at Avscom (Aviation Systems Command) in St. Louis. Arthur Dixon, BA 1983, is

now living in Van Nuys California and working in industry. He is currently enrolled in a part-time MS program at California State University-Long Beach where Shelly Kumar, Ph.D. 1982, is on the faculty. Robert L. Dittrich, BS 1976, was seen at the Anaheim ACS meeting. Bob had recently moved from Carboline to Ralston Purina. Mark Vilmer, BS 1983, was in the department recently. Mark received an MS degree from UM-Columbia and recently went to the University of Toledo where he is in the Ph.D. program. Deborah Wilson, BA 1984, recently moved from National Graphics to Chemtec. Mark Owens, BS 1977, MS 1982, has moved from Envirodyne Engineers to Mallinckrodt where he is an analytical chemist. Mark's supervisor is Michael Mohl, BS 1971. We heard from Douglas Stracke, BS 1980, MS 1985, who is at Granite City Steel. Doug told us that Roger Rieman, BS 1972, had moved from Granite City Steel to Digital Equipment Company. Jia-Ji Gu, MS 1986, is now employed at Missouri-Analytical Laboratories in St. Louis.

Graduates 1986

The following students graduated during the calendar 1986, i.e. since the appearance of the last UMSL Chemist.

June 1986

Margaret Aldy BS
Elyse A. Gherardini BS
Jean L. Brielmaier BS
Margaret G. Whitlow BS (and BA)
James H. Roble BS
Joan Bryan BS
Gregory K. Thudium BA
Shari A. Menefee BA
Mee Jung BA
Ben Altheimer BA
Melvin Turner BA
Mark A. Lieber MS
Gregory Hileman MS
Charles R. Jeffreys MS
Diane S. Braccolino MS

August 1986

James Meyer BS
Ella Jones BA
Charles W. Hampton BA
Kevin Aubuchon BA
Jeffry Siria MS
Gregg Lumetta Ph.D.

December 1986

Timothy Tolley BS
John C. Ackerman BA
Thang Manh Ho BA
Michael Van Norman BA
Jeanette A. Glaenzer MS
Jia Ji Gu MS
Carl L. Irwin Jr. MS
Ravi Kumar Laxman Ph.D.

The Alan F. Berndt

Outstanding Senior Award

The 1986 awardee was John C. Ackerman who graduated magnum cum laude with a BA degree in December 1986. John now works at Monsanto. He was presented with the award on April 28, 1986.

The Faculty

Promotions and Appointments

Gordon K. Anderson was promoted to Associate Professor with tenure and James Chickos and Lawrence Barton were promoted to Professor, effective Fall Semester 1986. M. Thomas Jones was appointed Interim Associate Vice Chancellor of Academic Affairs. Charles Armbruster has been appointed Director of Planning for the new Center for Science and Technology.

New Faculty

William J. Welsh joined the faculty in August 1986 (see UMSL-Chemist 1986). Bill was the recipient

of teaching awards at the College of Mount St. Joseph. He also had established himself as a computational chemist. Bill brought his own Micro-Vax computer with him and it is now a node on the new ethernet based network. He brought two grants with him, one from the Air Force Office of Scientific Research (AFOSR) jointly with James Mark of the University of Cincinnati on high performance polymers and the other jointly with Vivian Cody of the Medical Foundation of Buffalo, for computer graphics studies of anticancer drugs. Bill is busy establishing his research program here, writing grant proposals and papers.

We are pleased to announce that Dr. Valerian D'Souza will join the faculty in the Fall. Dr. D'Souza is a bioorganic chemist. He did his Ph.D. degree at the University of Detroit with Professor Harry Szmant on mechanistic aspects of the thiol olefin co-oxidation reaction and is currently a post-doc in Myron Bender's Laboratory at Northwestern University. His research interest are in artificial enzymes. He has published several papers and has an article in Accounts of Chemical Research and a book on artificial enzymes to be published soon.

We expect to add three new faculty in the next three years as part of the University's long range plan. One will be at the assistant professor level and two will be more senior faculty. In addition we expect to add a biochemist joint with the School of Optometry. Of course these faculty additions are dependent on the ability of the state to provide funds for the campus long range plan.

Miscellaneous News of the Faculty

Gordon Anderson has been awarded a research leave for the Fall 1987 semester. Gordon continues his NATO supported collaborative research with

Ronald Cross of Glasgow, Scotland. Both collaborators have spent time on the other's campus this last year. Gordon received a research grant from the university recently and continues his productive research program which is funded by the ACS/PRF.

Charles Armbruster has been active in the "Outreach Program" which involves the offering of UM-St. Louis courses on high school campuses. Currently chem 11 and 12 are being offered at Parkway Central and South High Schools.

Lawrence Barton started a third three-year term as chairman this year. With Dr. Riehl's help he convened the first meeting of the Industrial Advisory Council earlier this year and last Fall hosted the MASUA chemistry chairs' conference. He just completed a major contribution to Gmelin on the boron-hydrides.

James Chickos returned last August from a very productive year at the University of Reading in England. The second year of his NSF grant was funded last Fall.

Eugene Corey has served on the College of Arts and Sciences Planning Committee this year. The X-ray facility, which Gene manages, continues to function well and he has worked on crystal structures this year in collaboration with students in the research groups of Anderson, Murray, J.Y. Corey, Jones and P. Gasper of Washington University.

Joyce Corey is also undertaking collaborative research funded by NATO. Joyce and her collaborator Robert Corriu of Montpellier France have visited each other's campus this last year. Joyce and Eugene Corey are cochairs with a colleague from Washington University of the VIIIth International Symposium on Organosilicon Chemistry and are busy planning the event which takes place in June this year.

David Garin is Presiding Officer of the UM-St. Louis Faculty Council this year. Dave has been granted a sabbatical leave for 1987-88. He intends to spend the year at Clark University in Massachusetts studying neurochemistry. Dave organized several seminars this last year on Science and Public Policy which were widely attended.

John Gutweiler continues his role as pinch hitter in the department. In between teaching quant and other courses he has found himself a summer job as a reporter for UPI at the ball park!

Harold H. Harris recently coordinated the department's effort to acquire matching funds from Missouri Research Assistant Act to support computational facilities in the department. Hal was elected a Councilor of the St. Louis Section of the ACS this year.

M. Thomas Jones continues his very productive research program in spite of increased administrative duties. Tom presented papers in Japan last summer and was awarded a grant through the Missouri Research Assistance Act. Tom wrote the proposal to the US Dept. of Education which resulted in the award of \$500,000.00 toward the Science Complex.

David W. Larsen has been busy this year helping keep the NMR laboratory running. His wide-ranging collaborative research continues. This includes work with colleagues at St. Louis Children's Hospital involving ^{31}P NMR studies of diseased kidneys, with colleagues at Anheuser Busch on the development of analytical techniques, and with a colleague from UM-Columbia on industrial waste treatment procedures.

Jane A. Miller returned from a sabbatical leave this last Winter Semester. Her function as faculty member in charge of chemistry teacher training has been a busy one recently

as the number of students aspiring to become chemistry teachers has increased. Jane published a paper last year on the history of women in chemistry.

Robert W. Murray's research program is as active and successful as ever. He currently has grants from the NIH, the ONR and the Army Research Office. His publications continue to appear regularly and his research group has grown recently with the addition of new post-doctorals.

James P. Riehl spent much of the year helping set up the new computer network in Benton Hall. Jim's post-doctoral support from Monsanto was renewed this last year and he has received additional research funding from the AFOSR. Jim wrote the proposal which resulted in the grant from the Harris Corporation.

John Schreifels has received support from industry for his research in the chemistry of surfaces. Some of his work in collaboration with Dennis Wester, BS 1971, of Mallinckrodt, will be published soon.

Michael Sworin, continues to establish his research program. He expects two of his students to complete their Ph.D. degrees this year and he is in the process of writing up and submitting their work for publication.

Rudolph E.K. Winter has worked hard this last year to set up the Hewlett-Packard GC-MS system. This was obtained as surplus equipment from the FDA in St. Louis. Thanks to him and Joe Kramer we now have a functioning system. His USDA joint grant with Professor Bolla (Biology) for the study of stress chemical production in rapid Pinewilt was renewed this year.

Eric G. Brunngraber 1927-1987

Professor Brunngraber died on February 17 1987 from complications resulting from vascular disease. He

had been adjunct professor of chemistry since 1976, had directed the research of undergraduate and graduate students and taught the biochemistry courses regularly since 1981. He was a neurochemist and an extremely productive researcher, having published more than 100 papers, in addition to a book on neurochemistry and numerous chapters in books. Many of you will remember that he directed the thesis of C.W. Somawardhana (Sam) who graduated with a Ph.D. in organic chemistry in 1982.

Eric was born in New York City in 1927. He earned a bachelor's degree in chemistry and zoology at Columbia University and a Ph.D. in biochemistry at the University of Wisconsin. He served in the US Army of Occupation in Germany from 1946-47 and continued to serve as an officer in the U.S. Army Reserve, Chemical Corps, until 1959. From 1957-1959 Dr. Brunngraber held a post-doctoral position at the Neuropsychiatric Institute at the University of Illinois and from 1959-1975 he headed the biochemistry research unit at the Illinois State Psychiatric Institute in Chicago.

In 1975 he joined the staff of the Missouri Institute of Psychiatry as biochemistry unit chief and professor of biochemistry in the UM-Columbia School of Medicine. He and I had worked towards his permanent transfer to UM-St. Louis for a couple of years. It was completed in December 1986. Eric's goal was to establish a biochemistry program at UM-St. Louis. He had begun working toward this goal and also had been collaborating recently with Professor Riehl on the chemistry of calmodulin, a Ca(II) binding protein. Eric taught the biochemistry lectures and laboratory for about five years and advised many students, especially those planning to go to graduate school or medical school.

Eric lived in Kirkwood. He is survived by his wife Lois, a sister Elinor and two sons and a daughter.

We have decided to establish a senior undergraduate research fellowship in his memory. The idea is to establish a fund that will endow the fellowship. The recipient will be selected by the faculty annually and will be awarded an honorarium and a tuition scholarship for four credits.

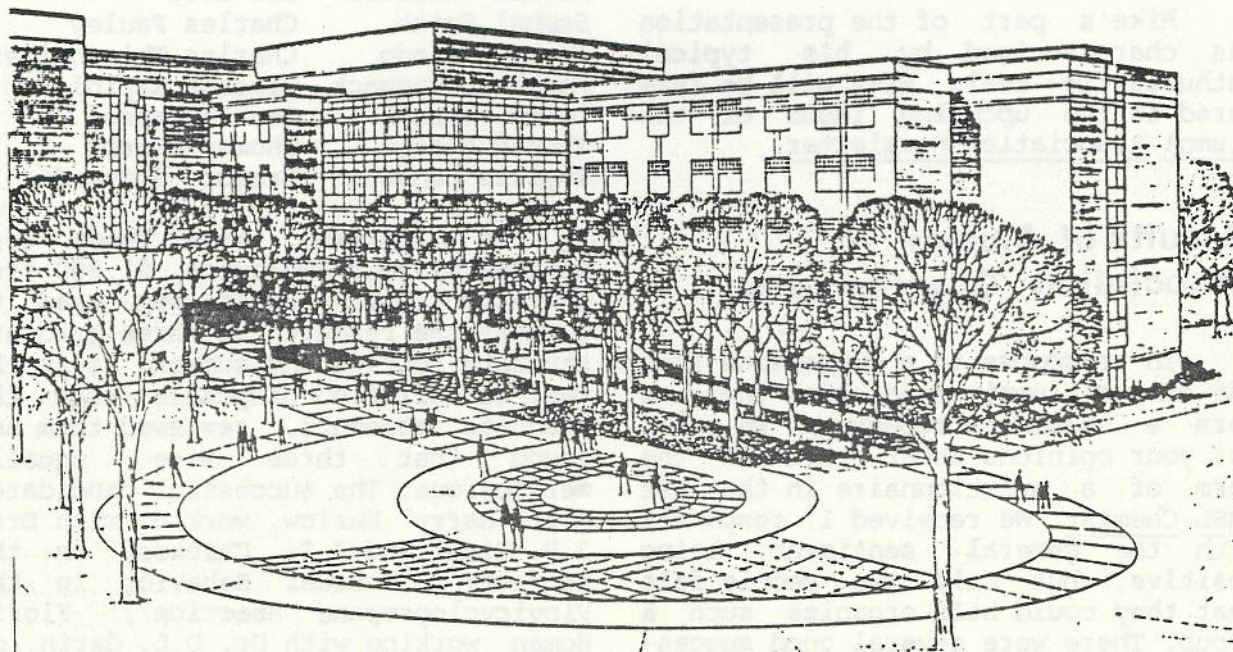
If you wish to contribute to this fund, please do so. We intend to establish the fund by setting aside \$1,000.00 from the Chemistry Alumni Account, using the substantial contribution Dr. and Mrs. Brunngraber made to the Chemistry Gift account last Fall and to add to this all contributions made specifically for this purpose. Mrs. Brunngraber had asked that memorial contributions be made to the Chemistry Department.

Science Complex

The plans for construction are now complete and bids are currently being advertised and will be opened on April 1. The Board of Curators is expected to accept the low bid at its April meeting. Site preparation began last fall when sewer and utility trenches were excavated and refilled,

and construction is expected to start in early summer. The project includes 98,000 sq. ft. of new construction and about 49,000 sq. ft. of renovation in Benton and Stadler Halls. The chemistry department will occupy ca. 42,000 sq. ft. in the Science Complex.

The cost estimates are quite high so the plans don't include the normal ca 10% total cost as movable equipment, in this case instrumentation. Also some of the renovation of Benton and Stadler Halls and some furnishings may not be included if the bids come in high. On the other hand, if the bids come in low, all of these items will be included. The reason we accepted the gift of laboratory furniture was to fill in for the missing furnishings and to provide some additional hoods in Benton Hall. These latter were not included in the bid request. Individual research laboratories have been designed to individual faculty specifications. We are, of course, very excited, but are quite frustrated that it has taken so long. A view of the new construction from halfway up the hill towards the library is given below.



We have decided to establish a senior undergraduate research fellowship in his memory. The idea is to establish a fund that will endow the fellowship. The recipient will be selected by the faculty annually and will be awarded an honorarium and a tuition scholarship for four credits.

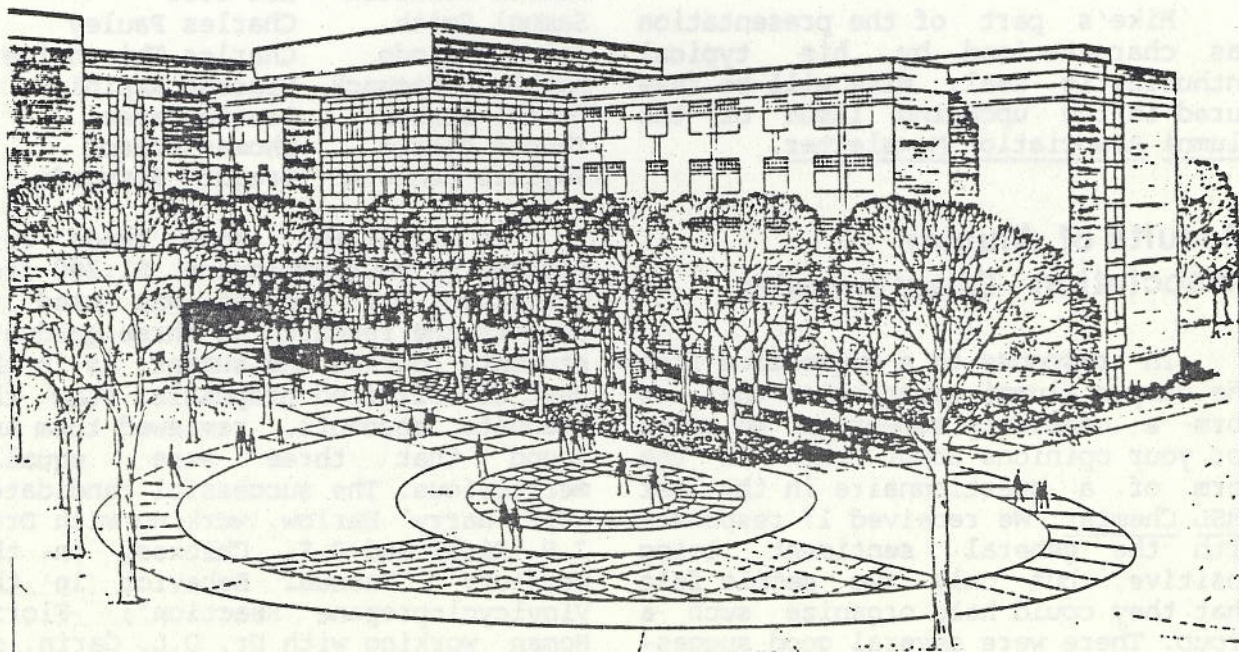
If you wish to contribute to this fund, please do so. We intend to establish the fund by setting aside \$1,000.00 from the Chemistry Alumni Account, using the substantial contribution Dr. and Mrs. Brunngraber made to the Chemistry Gift account last Fall and to add to this all contributions made specifically for this purpose. Mrs. Brunngraber had asked that memorial contributions be made to the Chemistry Department.

Science Complex

The plans for construction are now complete and bids are currently being advertised and will be opened on April 1. The Board of Curators is expected to accept the low bid at its April meeting. Site preparation began last fall when sewer and utility trenches were excavated and refilled,

and construction is expected to start in early summer. The project includes 98,000 sq. ft. of new construction and about 49,000 sq. ft. of renovation in Benton and Stadler Halls. The chemistry department will occupy ca. 42,000 sq. ft. in the Science Complex.

The cost estimates are quite high so the plans don't include the normal ca 10% total cost as movable equipment, in this case instrumentation. Also some of the renovation of Benton and Stadler Halls and some furnishings may not be included if the bids come in high. On the other hand, if the bids come in low, all of these items will be included. The reason we accepted the gift of laboratory furniture was to fill in for the missing furnishings and to provide some additional hoods in Benton Hall. These latter were not included in the bid request. Individual research laboratories have been designed to individual faculty specifications. We are, of course, very excited, but are quite frustrated that it has taken so long. A view of the new construction from halfway up the hill towards the library is given below.



Visit by Monsanto Scientists

On February 25th this year Michael Finkes, BS 1973, MS 1977, Senior Research Chemist and Dr. Gerard Dutra, Manager of Herbicide discovery, both of Monsanto Agriculture Company visited the department. They described job opportunities for BS and MS graduates in their laboratories. The presentation was made by Dr. Dutra and throughout the presentation Mike interjected and described the roles of specific UM-St. Louis graduates.

Mike's work is in organic synthesis. That is what he enjoys doing best. Also involved in synthesis is Sue Moritz, MS 1982. Suzanne Baszis, BS 1977, is involved in the analytical chemistry of herbicide residues. Mark Pozzo, BS 1978, MS 1982, is involved in process chemistry and Cynthia Snowdie (Benson) BS 1977, is involved in environmental process chemistry and also in analytical chemistry. There are approximately 45 UM-St. Louis chemistry graduates at Monsanto, and one third of the total number of graduates of the part-time MS degree program are at Monsanto.

Mike's part of the presentation was characterized by his typical enthusiastic zeal. Mike will be featured in the upcoming issue of the Alumni Association Newsletter.

Results of Alumni Association Questionnaire

In response to a suggestion from the campus alumni association that we form a chemistry sub-group, we asked for your opinions about this in the form of a questionnaire in the last UMSL Chemist. We received 17 responses with the general sentiment being positive, but only two people felt that they could help organize such a group. There were several good sugges-

tions about the functions that should be organized by this group. They ranged from social events to events that would promote the department to prospective students, to employers, and to donors in the community.

We thank those of your who responded. Clearly there is not enough support for the establishment of a special group but we will try to incorporate your suggestions into our departmental interactions with the community and with you. To accomplish this we may need to call on some of you for your assistance from time to time. We hope your schedules will permit you to help when asked.

Contributions 1986/87

During the last year we received a total of \$2,064.00 from the individuals listed below:

Paul Blystone	Philip Asaro
Vincent Chang	Deborah Bergstrom
Scott Passer	Mark Williams
Judy Shih	Robert Lamberg
Virginia Martin	Joseph Muo
Dennis Parazak	Doug & Diane Neulle
Dorothy Greco	Dennis Lambert
Vernon Koziatek	Lee Gori
Samuel Smith	Charles Pauley
Jerry Orlando	Charles Thierheimer
Kathleen Cammack	Vincent Rapini
Daniel Stueck	Donald Hesse
Thomas Mertle	Thomas Crespi
Phyllis Bennett	Gregory Przygoda

In addition some funds were matched by your employers. \$1,200 from our Alumni Gift Account was used to support the research of three graduate students during the summer. As in the past we solicited proposals from the graduate students, reviewed them and found that three were equally meritorious. The successful candidates were Harry Harlow, working with Drs. J.P. Riehl and J.S. Chickos, on the project: "Unusual Behavior in the Vinylcyclopropane Reaction"; Floris Homan working with Dr. D.L. Garin, on

the project "Enolate Anions of Esters" and R.K. Laxman, working with Dr. G.K. Anderson, on "Rhodium Complexes Containing Bidentate Ligands".

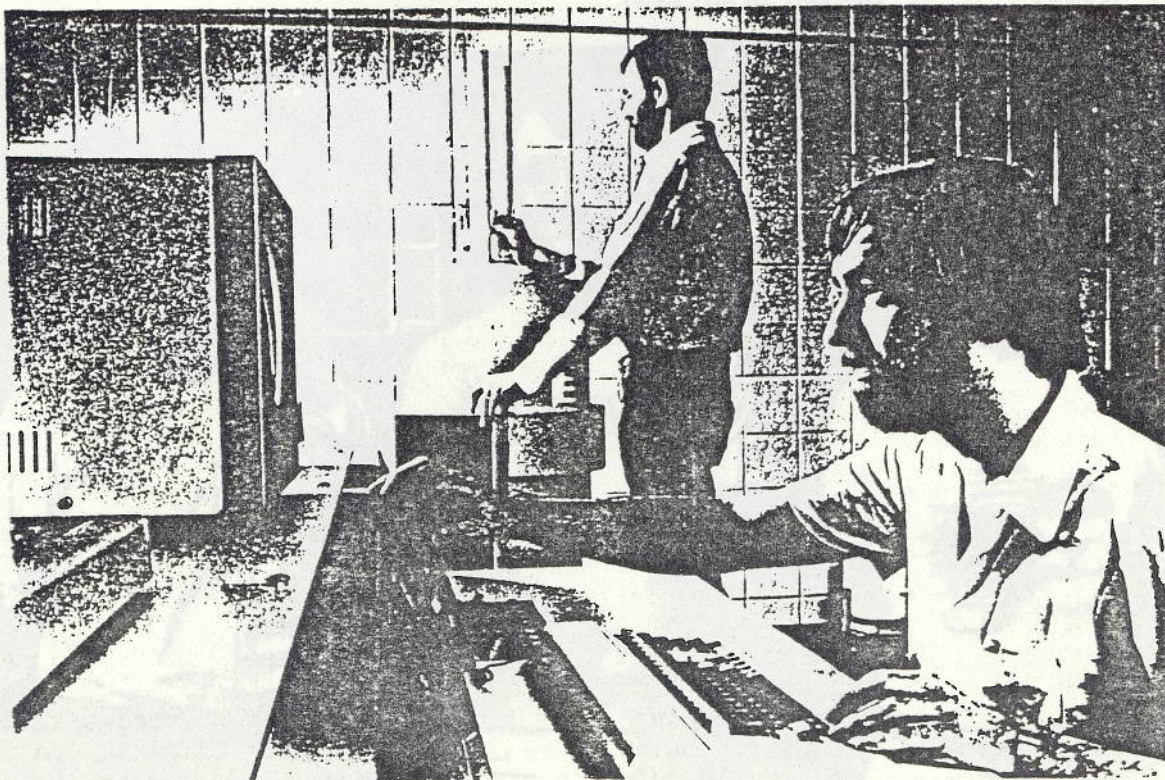
As mentioned in another section of the newsletter we plan to use \$1,000 from the Alumni account to establish an Eric Brunngraber memorial fund that will be used to support undergraduate research.

It is clear to us that research, both at the graduate and undergraduate level is very important. We heard much about the latter in the presentation by the Monsanto chemists. Undergraduates who have done some independent research clearly have an edge whether they go into industry or on to graduate school. Of course research is a very important feature of the department's activities and enhanced research productivity improves the reputation of the institution, improves the prospects for extra-mural funding and thus helps build the department into an even stronger one.

We are also exploring ways of providing scholarship funding for undergraduates. Any ideas in this subject would be most appreciated.

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.

If you decide to make a contribution please do so by using the tear off sheet at the end.



Professor Michael Sworin and graduate student John Boylan, who serves as the NMR operator, working with the Varian XL-300 NMR Spectrometer.

Help Wanted ...

We have no recent information about the alumni listed below. We hope that some of you will be able to help us locate them. If you have any recent information please contact us at 553-5311 or include the information in the update at the end of this newsletter.

Linda M. Chapman	Thomas Lucas
Meri Cummings	Frank J. Marre
Robert Cushing	Barbara Mcgee
Michael T. Deuber	Steve Mestamecher
Jeanene Dueber-Sylvester	Saiyid Nagvi
Robert W. Dugger	John Nestor
Marty Eresh	Henry Placke
Robert Flowers	Sydney Rader
Dennis Fortune	Paul Rains
Mollie Freebairn	Clarice Rieser
Samuel Gershman	Gerald Rubenacker
Thomas Goodwin	Gary Schilling
Robin L. Inman	Frank Simon
Gerhart Jerome	Patricia Skewes
Elizabeth Keath	John Smith
Lucky Kelley	Steven Stanfield

Joseph Kern
William Keyes
Rich Kinast
Jacqueline Knapp
John Koenig
Roger Littge

Allan Tenshert
Kun-Yung Tsai
Terry Ward
Thomas Weatherby
Paul Whitehead

PLEASE DON'T FORGET THE ALUMNI RECEPTION

You are invited to attend the Third 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 10. 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.



A reunion between mid-1970s graduates Dan Breyfogle, BS 1975, Bob Dugger, BS 1975 and Rick Hoyt, BA 1976.

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 your check payable to UMSL. "Chemistry Alumni Fund" and return it to

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