

# University of Michigan Chemistry NEWSLETTER

## Letter from the Chair

I am pleased to give you a brief overview of the Department's activities since the fall of 2000 as I wind down my five-year term as chair. The timing of this newsletter is not ideal because numerous events last fall delayed it. We do intend to continue the early fall schedule for the newsletter, and you will hear from the new department chair who is Professor William Roush at that time.

It is a pleasure to report that all four assistant Professors who began in the fall of 2000, Dr. Anna Mapp, Dr. Adam Matzger, Dr. Zhan Chen, and Dr. Eitan Geva are off to an outstanding start at Michigan. They have built up excellent research groups, some as large as eight co-workers and have established themselves as effective teachers as well as outstanding colleagues. Marc Johnson joined us in August, 2001 as assistant Professor in the area of inorganic and organometallic chemistry. His research program is profiled in this newsletter. Marc was selected last September as one of only ten chemists nationally to receive a Camille and Henry Dreyfus New Faculty Award.

Last year, we hired another assistant Professor joint with the Biophysics Research Division. He is Hashim Al-Hashimi who is currently completing a postdoctoral at Rockefeller University. Hashim received his Ph.D. in biophysics from Yale University and is an expert in the development of methods and applications of high field NMR in RNA biochemistry. With his arrival in August, we will have one of the strongest research efforts in NMR spectroscopy. We are also excited about the most recent senior hire, Bob Kennedy, from the University of Florida who will join us in August. Bob's research area is bioanalytical chemistry with definite medical applications. He will be a Collegiate Professor of Chemistry and Professor of Pharmacology. This is a significant, new position created by the Provost to bridge LS&A and the Medical School. A final hire at the junior level this year is Dr. John Wolfe, a synthetic organic chemist who worked with Steve Buchwald and Larry Overman. John is arriving in July to set up his laboratory. This makes a total of 14 hires (5 at the senior level) since 1997.

At this time, two of our colleagues are recommended to the Provost for promotion pending approval by the reagents. They are A. Rams Ramamoorthy to Associate Professor with tenure and Brian Coppola to full Professor. Rams is a joint hire with Biophysics in the field of solid state NMR and Brian Coppola was named an Arthur Thurnau Professor last year. This year Paul Rasmussen was named an Arthur Thurnau Professor for excellence in education. Paul also has assumed the position of Associate Dean for Research and Graduate Studies last fall succeeding Rick Francis who has been on sabbatical leave this year. James Penner-Hahn is completing two years as Associate Vice-President for Research and next year will be Director of the Biophysics Research Division. We also congratulate Dimitri Coucouvanis for receiving a Collegiate Professorship which is named in honor of Professor Lawrence Bartell. Richard Goldstein is taking a leave of absence for a year to pursue the research directorship of a bioinformatics

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## 2001-02

The Regents of the University of Michigan:  
David A. Brandon, Laurence B. Deitch, Daniel  
D. Horning, Olivia P. Maynard, Rebecca  
McGowan, Andrea Fischer Newman, S. Martin  
Taylor, Katherine E. White, B. Joseph White, *ex  
officio*. B. Joseph White, interim president.

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company in Siena, Italy. This year also brings with it a number of retirements. John Wiseman officially retired in December, and Bob Kuczkowski and Larry Lohr will retire at the end of May, 2002. We are also very saddened with the passing away of Milton Tamres in May, 2001 and Bob Taylor in September, 2001. Many of us remember their many contributions to the department and their mentoring of faculty.

Recruitment of graduate students has continued to be strong in the last two years. This fall we expect over 60 new students with the largest area of interest (about half) in organic chemistry. The department has continued to make strides in national recognition. Our research funding has now reached about \$9.5 million up from about \$5 million five years ago. In fiscal year 2001, we ranked eighth nationally in NIH funding to chemistry departments with \$5.9 M, behind MIT. The most recent US News and World Report ranked the sub-disciplines of analytical chemistry 11<sup>th</sup> and organic chemistry 12<sup>th</sup> respectively. Our departmental infrastructure has had a major boost this year with the acquisition of three new mass spectrometers valued over \$1.2 M with the help of two major grants, an NIH departmental grant of \$400K and an NSF grant to Professor Lubman for \$200K. Monies from the Michigan Life Sciences Corridor Fund contributed to the acquisition of a new 600MHz NMR jointly with biophysics. This instrument will be of major use to Professor Al-Hashimi.

This year has also seen probably the most departures of top administrators in the University in some time, beginning with last summer's departure of the Provost, Nancy Cantor and this past December's departure of President Lee Bollinger to Columbia. Our interim-President is Joseph White, former Dean of the Business School and our interim-Provost is Paul Courant

from the Provost's office and the economics department. Bollinger's departure was quickly followed by the departures of the top development officer, the vice-President for finance and others. Only this month we learned that our dean of three years, Shirley Neuman will leave in June for the University of Toronto as Provost. We expect to have an interim-dean named very soon while a search is launched for a new dean. Despite all of these changes, the chemistry department is maintaining its upward momentum, and remains optimistic about the future.

Since this is my last newsletter, I would like to thank all of you for the support, both financial and programmatic that you have given me and the Department over the five years of my chairmanship. Your generosity and concern for the improvement of the Department was crucial in the progress we have made. I know that you will continue to support the Department and our next Chair, Bill Roush. I also wish to thank all of my colleagues who have supported me and the Department during the last five years. The Alumni/Industrial Departmental Committee will meet on May 2, 2002, and I want to thank them for their contributions. Among other items, the Committee will discuss the Department's new five-year plan which was prepared this past year by a faculty committee chaired by Professors Meyerhoff and Pecoraro. I close on a personal note that after 33 years at Michigan, I will be leaving in July to assume a position at the University of Notre Dame as Dean of their College of Science. Michigan will always be my home, but I am excited about the new challenges at Notre Dame and look forward to the move.

April 17, 2002

Joseph P. Marino, Chair

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## Spotlight Profiles on Faculty, Graduate Students and Undergraduates

We highlight a faculty member and several graduate and undergraduate students to let you know of their special accomplishments in the past year. Although the choice is difficult, considering the numbers of outstanding people in Chemistry at Michigan, we hope you agree this group deserves merit.

### William R. Roush

Professor William R. Roush joined the Department in the summer of 1997, as the Warner-Lambert/Parke-Davis Professor of Chemistry, after being recruited from Indiana University. Shortly after arriving on the Michigan campus, Professor Roush became very active in departmental and university affairs. He served a two-year term on the Department's Executive Committee, and he served as Chair of the faculty

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search committees that recruited Professor's Vedejs and Matzger to the department. He also was a member of the joint search committee between Chemistry and Pharmacy that brought Professor Mapp to the Department. He currently is a member of the Long Range Planning Committee.

At the College and University level, Professor Roush served in 1998-99 as the co-Chair of the Life Sciences Commission, which developed the blueprint for the Life Sciences Initiative and the Institute which is currently under development. In 1999-2000 he served on President Bollinger's Life Sciences Advisory Committee, which helped select the co-Directors of the Institute. Professor Roush also served on a subcommittee of the President's Advisory Committee which interacted closely with the architects on the design and development of the Life Sciences Institute building. This past year Professor Roush was a member of the College's Natural Sciences Divisional Advisory Committee, and he is a member of the Search Committee for Chair of Biological Chemistry in the Medical School. He is also a member of the President Search Advisory Committee.

Professor Roush has an active research group of 24 graduate students and postdoctoral associates. His program is supported by four research grants from the National Institutes of Health, along with some unrestricted support from several pharmaceutical companies. Dr. Roush's research interests focus on the stereocontrolled synthesis of stereochemically complex natural products, and on the design and development of new reactions and synthetic methods. The vast majority of his graduate students and postdoctoral associates work on individual projects within the four major areas in his group—each of which is supported by an individual NIH grant. One of these focuses on synthetic applications of intramolecular and transannular Diels-Alder reactions. Also of considerable current interest are Diels-Alder reactions of acyclic (*Z*)-dienes, historically a class of dienes that were regarded as impossibly bad substrates for the Diels-Alder reaction. This technology is being applied in the total synthesis of quartromicin, a structurally novel anti-viral agent. A second area involves acyclic diastereoselective synthesis, the goal of which is the development of practical synthetic reactions that are capable of establishing multiple stereochemical relationships in flexible, acyclic systems with a high degree of stereochemical control. Dr. Roush's group is focusing on the aldol reaction of methyl ketone enolates and on new allylorganometallic reagents in the organoboron, organosilicon and organostannane families. This technology is currently being applied in the total synthesis of no less than seven stereochemically complex, biologically active natural products. The third major area in Professor Roush's research group involves the synthesis of polyhydroxylated natural products—typically compounds that are carbohydrates or are carbohydrate-like in character. The Roush group has invested substantial resources to the development of practical, highly stereocontrolled syntheses of 2-deoxy- $\alpha$ - and especially 2-deoxy- $\beta$ -glycosides which are structural components of a variety of biologically significant natural products. This technology is being applied in syntheses of landomycin A, an antitumor agent, and angelimycin B, a structurally novel src kinase inhibitor. Finally, Dr. Roush has an active program on the design and synthesis of inhibitors of cysteine proteases that are crucial to the life cycle of several pathogenic protozoa, including *Trypanosoma cruzi*, the causative agent of Chagas' disease, and *Plasmodium falciparum*, the most virulent of the malarial parasites. This program is part of a Program Project grant with several research collaborators at the University of California at San Francisco. The Roush group has developed a series of structurally novel vinylsulfonamides, which inhibit the targeted cysteine proteases by functioning as Michael acceptors for the active site cysteine-SH residue. One of Dr. Roush's inhibitors has advanced to animal studies in a mouse model.

Professor Roush's research accomplishments have been recognized by the 1992 Alan R. Day Award of the Philadelphia Organic Chemists's Club, the 1994 Arthur C. Cope Scholar Award of the American Chemical Society, and the 1996 American Chemical Society Akron Section Award. In 1998 he received a Merit Award from the National Institute of General Medical Sciences, and in 1999 he received a Distinguished Faculty Achievement Award from the University of Michigan.

Professor Roush is an Associate Editor of the *Journal of the American Chemical Society*, and he also serves on the Editorial Boards of *Organic Letters*, *Tetrahedron*, *Tetrahedron Letters*, *Organic Reactions*, *Organic Syntheses*, and the *Encyclopedia of*



*William Roush*

*Reagents for Organic Synthesis*. He is a member of the Scientific Advisory Boards of ArQule, Inc. and Invenux, and is a consultant for Eli Lilly and Pfizer. He has previously served terms as Secretary-Treasurer and Chairman of the ACS Division of Organic Chemistry, and as Chairman of the NIH Medicinal Chemistry Study Section.

Professor Roush and his family spent the month of July at their summer home on Mackinac Island, where he maintains an office that enables him to keep up with his JACS editorial responsibilities, write papers, and remain in e-mail contact with his research group. In the fall semester he taught Chemistry 543 – “Organic Reaction Mechanisms”– for the second time..

## Graduate Students

### **Angela Carden**

Angela Carden is a graduate student in the laboratory of Professor Michael Morris. She is studying the effect of mechanical load on bone tissue at a microstructural level, using Raman spectroscopy and imaging techniques. In this work she has mapped changes in bone mineral composition in the region of cracks and fractures in animal models and has investigated the subtle differences in mineral composition in mouse models for genetic defects in bone tissue. She has also performed the first Raman spectroscopic measurements of dynamic response of bone tissue to mechanical stress. Her work is decidedly interdisciplinary. She is an active collaborator with research groups in both the Dental and Medical Schools at the University of Michigan. In addition to authoring and coauthoring several papers in analytical spectroscopy and biomedical optics journals, she has also written a major review article on the application of vibrational spectroscopy to mineralized tissues. She has given numerous talks at major national and international conferences on spectroscopy and biomedical optics.

Angela received the Horace H. Rackham School of Graduate Studies Predoctoral Fellowship for the 2001-2002 academic year. In addition, she was a member of the Cellular Biotechnology Training Program from 1998-2001 and received the Sloan Summer Fellowship in 1999. She was a poster session award winner in the 1999 Symposium on Biomedical Imaging: Beyond Diagnostics. In her free time Angela sings with the Ann Arbor Civic Chorus and enjoys reading and hiking.

### **Nissa Westerberg**

Nissa Westerberg is a researcher in the laboratory of Professor Carol A. Fierke. Her work focuses on developing and optimizing proteins for use as optical sensors to measure the concentration of analytes in complex mixtures, such as ground water or blood. In particular, she has been developing a real-time biosensor that can specifically measure nitrate concentrations. For this, she has been modifying the structure of a bacterial periplasmic binding protein that recognizes nitrate and nitrite so that analyte binding will be reported by changes in fluorescence. This sensor will have both environmental and health applications. In collaborative research, she is using a previously developed zinc biosensor to measure zinc levels in living cells. Zinc concentrations are tightly regulated as it both plays important roles in the immune system, wound healing and neurobiology but can also be detrimental in excess concentrations.

She received the University of Michigan Regent Fellowship from 1999 to 2003 and is recipient of a Cellular Biotechnology Training Grant Fellowship. In addition, she received the Outstanding Second/Third Year Graduate Student Award from the Chemistry Department and Honorable Mention in the National Science Foundation Graduate Research Fellowship competition. In her free time, she enjoys reading and is a literacy tutor for Washtenaw Literacy.

## Undergraduate Students

### Jennifer Chang

The past four years at Michigan were packed for Jenn Chang, as she usually carried eighteen credits each semester along with numerous other commitments. Her academic honors include the Helen S. Schaefer Scholarship (Chemistry), General Electric Undergraduate Research Fellowship, Carlene Friedley Scholarship (Chemistry), National Starch Scholarship (Chemistry), and the Barry M. Goldwater National Scholarship. For the past two summers she received a UCSF Summer Research Fellowship, enabling her to enjoy the Bay area and do research under Dr. Elizabeth Blackburn.

Jenn's teaching activities were as a structured study group leader and leader and coordinator of peer led study groups. She was active with the ACS Affiliates for all four years, played violin in pops and campus orchestras and participated in alternative spring break service projects.

Her scientific mentors at Michigan were Tom Kerppola (Biological Chemistry), Brian Coppola (Chemistry) and Michael Marletta (Biological Chemistry). Jenn wrote two honors theses, "Performance-based capstone assessment of the undergraduate chemistry curriculum" mentored by Brian Coppola, and "Putative soluble guanylate cyclases in *C. elegans*" under Michael Marletta. Marletta, now at UCSF and UC Berkeley, states, "Jenn was the brightest undergrad to work in the lab. She worked on one of our 'fishing expedition' projects. In short, we didn't know where it was going. Jenn's thoughts and experiments helped clear the way. She was a joy to have around and a substantive contributor."

Jenn graduated in May with an Honors Bachelor of Science degree in Chemistry and Biochemistry. She is currently in the MD/PhD program at Harvard, interested in studying the role of chromatin structure in modulating transcription, especially in cell cycle regulation and in applying chemistry to study the biological phenomena. The future ideally includes an academic appointment in a research institution, combining research, clinical practice and teaching.



*Jennifer Chang*

### Scott Harrison

Over the last four years, Scott Harrison has distinguished himself both in and outside the classroom.

His academic honors include the AXE Outstanding First Year Award and the ACS Analytical Division Outstanding Junior Award. He has also been the recipient of summer research fellowships from Amoco, Dow, and the American Chemical Society to work in the lab of Professor James Coward for the last three summers.

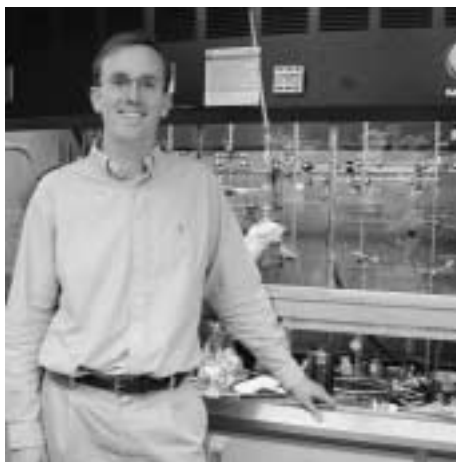
In addition to his academic distinction, Scott has gained an impressive amount of teaching and leadership experience in a number of different contexts. He served as Vice-President and Co-President of the ACS Student Affiliates, for which he was subsequently given the ACS Senior Leadership Award. He was co-founder and coordinator of the department's peer-led study group program and leader of a structured study group for Chemistry 210 and 215. Scott was also an undergraduate lab instructor for the department in Chemistry 211 and 480. He gained additional teaching experience at the high school level by co-designing and implementing a two-week chemistry course for high school students enrolled in the Michigan Math and Science Scholars Program. Finally, he has worked as a Chemistry instructor for the Pipeline program through the school of dentistry.

Professor Coward, Scott's research mentor for three years, views him as a very persevering synthetic organic chemist, able to integrate theory and research. Scott's commitment to serving the community was truly exceptional, unmatched by past undergraduate research students in his lab.

Scott graduated last May with an Honors Bachelor of Science degree in Chemistry, non-honors Biochemistry, and began graduate studies in the fall at the Scripps Research Institute.



*Scott Harrison*



Marc Johnson

## New Faculty

### Marc Johnson

Assistant Professor of Chemistry  
Ph.D., MIT  
Inorganic Synthesis

Professor Johnson is interested broadly in synthetic and mechanistic organotransition metal and inorganic chemistry. These research interests include discovery of new synthetic methods for both inorganic and organic synthesis. This entails the preparation, isolation, and characterization of transition metal and actinide complexes that exhibit novel reactivity by virtue of their unusual coordination environments. This in turn is facilitated by careful ligand design and construction.

This research is directed toward the development of catalysts for the activation and functionalization of small molecules such as dinitrogen and carbon dioxide, as well as new reagents and catalysts for organic synthesis. These compounds are prepared and manipulated using standard inert-atmosphere techniques. A variety of spectroscopic techniques are employed to optimize synthetic conditions, to measure reaction kinetics, and to characterize new compounds. Multinuclear NMR experiments, EPR spectroscopy, and single crystal X-ray diffraction studies are employed routinely for structural elucidation. Two representative projects are briefly outlined below.

*Direct nitrogen incorporation into organic molecules.* Transition-metal catalyzed alkyne metathesis is a facile process. The triple bond strengths of alkynes, nitriles, and dinitrogen are such that it is reasonable to propose equilibration of these compounds by a similar process. Synthesis of organonitriles from nitrogen gas and alkynes would constitute a completely new method of nitrogen fixation. Alternatively, the reverse reaction would result in the formation of a carbon-carbon triple bond, starting from nitriles, with nitrogen gas as the only byproduct. Use of dinitrile starting materials would permit the synthesis of poly(aryleneethynylene)s and other polymers with exciting nonlinear optical and other desired properties.

*Carbon dioxide as a carbon source in synthesis.* The use of carbon dioxide as a carbon source, with the eventual purpose of recycling some of the carbon lost to the atmosphere through combustion, is one major goal in transition metal catalysis. Isocyanates are important industrial chemicals produced on the megaton scale annually. At present, these compounds are synthesized from amines and toxic phosgene gas. Replacement of phosgene by carbon dioxide would be both safer and less expensive, in addition to being a productive use of a greenhouse gas. Additionally, water is the only byproduct of the new process. This can be achieved via well precedented metal-mediated pairwise oxo-imido exchange reactions.



### Heather A. Carlson

J. D. Searle Assistant Professor of Medicinal Chemistry and Chemistry  
Ph.D., Yale University  
Computational Chemistry, Theoretical Biophysics

The power of computational methods is the ability to reduce complex experimental observations to the atomic detail of molecular interactions. In our research, quantum mechanics, statistical mechanics, molecular mechanics, and database-mining techniques are used to investigate chemical and enzymatic systems of biomedical importance. Understanding structure-function relationships and en-

zymatic regulation allows us to explain the mechanism of disease and suggest routes for inhibition. Because inhibitor discovery is inherently multi-disciplinary, we frequently collaborate with researchers both on and off campus.

*Enzyme Mechanisms and Regulation:* Reactants and a large portion of an active site can be modeled with ab initio molecular orbital calculations at a reasonable level of theory, providing a reaction pathway under the first-order influences of the enzyme environment. QM/MM methods can include solvent and the entire protein in similar calculations at lower levels of theory. We are currently using ab initio calculations to examine DdIB, a

D-Ala:D-Ala ligase from *E. coli*. DdlB is an important system for understanding the synthesis of bacterial cell walls and the development of antibiotic resistance. Molecular dynamics simulations also provide details of how DdlB and its mutants can accommodate various ligands under experimental conditions.

*Computer-Aided Inhibitor Design:* De novo design, pharmacophore modeling, database searching, and molecular dynamics calculations comprise a large part of our efforts. We also focus on improving methods for computer-aided drug discovery and applying those techniques to

enzymatic systems related to infectious diseases. Our most recent breakthrough in this area is a promising new method for incorporating protein flexibility into the drug design process. Using this method, we were able to identify inhibitors for a poorly described, but essential HIV-1 protein. It is the only reported example of finding inhibitors of an enzyme when part of the active site was unresolved in the crystal structure.

*Water in Protein-Ligand Association:* We are investigating the role of water in the general scope of biopolymer association. Predicting the behavior of water in

biochemical systems is difficult because there is a fine balance between enthalpic and entropic contributions that govern its role in mediating protein-ligand association. A water molecule can be bound between a ligand and its receptor, providing a tighter and more energetically favorable fit. Alternatively, the release of water molecules from the receptor can provide an entropic contribution to the association. To further complicate matters, the act of binding is in competition with interactions of the ligand and the receptor to bulk water in the unbound state.

## Professor Brian P. Coppola named Thurnau Professor

Over the past 15 years, Professor Brian Coppola has been recognized repeatedly for his teaching ability and commitment to improving undergraduate education in the sciences. Since coming to Michigan in 1986 Coppola has received numerous awards including: the Amoco Undergraduate Teaching Award (1999), the U.S. Department of Education Undergraduate Computational Science Award (1996), The Golden Apple Teaching Award (1994), and the LSA Dean's Excellence in Teaching Award (1991-97). In February, Coppola added to his list of accolades by becoming one of six faculty members at the university to be named a Thurnau Professor for 2001-2004.

Established in 1988, Thurnau professorships are given to faculty who have made outstanding contributions to undergraduate education. The professorships are named in honor of Arthur F. Thurnau who attended the university from 1902-1904. Recipients of the award receive a grant to support their teaching. In naming Coppola to the position, Provost Nancy Cantor noted, among other attributes, his national reputation for "sharing new conceptual models for undertaking and documenting teaching as a form of scholarly work."

Coppola, who was one of the authors of the revised chemistry curriculum for which the department has received nationwide acclaim, was also among 15 faculty members selected nationwide to

work on a pilot project run by the Carnegie Foundation for the Advancement of Teaching. The author of over 75 articles on developing the scholarship of teaching and learning, Coppola describes his philosophy of teaching as a combination of creative act, organizational activity, and social contract. As students at Michigan will attest, his commitment to this philosophy is evident not only in his undergraduate instruction, but also in his desire to better prepare graduate students for their role as college instructors in the future.

Recognizing the need to view higher education learning environments as an area of scholarly work, Coppola founded CSIE: Chemical Sciences at the Interface of Education of which he currently serves as director. Since 1994, CSIE has been developing new ways of training undergraduate, graduate, and post-doctoral participants to be better prepared for the full scope of responsibilities that come with an academic career: from the classroom and laboratory to mentoring, grant-writing and authorship. Given the lack of pedagogical training possessed by most incoming college faculty, as well as the stress that new faculty are under at institutions such as Michigan and nearly everywhere else, Coppola sees the initiative as a win-win situation for participants as well as the institutions likely to employ them in the future. The ability to construct bridges between the traditionally segregated worlds of teaching and research is an anomaly at a school like Michigan and truly sets Coppola apart as a professor with a rare vision of what teaching and learning at the college level should be about.

This year, Coppola is organizing a group of faculty from 6 LS&A departments, the School of Education, and Rackham Graduate School in order to expand the CSIE concept into a more comprehensive, campus-wide effort. The group plans to introduce a new Rackham Graduate Certificate option in ISIE: Inter-disciplinary Studies at the Interface of Education, which is the term coined by Professor Coppola to designate the area of discipline-centered teaching and learning. In the beginning of the preproposal that has been submitted to the NSF IGERT program, Coppola writes: "The intellectual and professional development of future faculty members outside of their research is not given anywhere near the same levels of respect and sophistication as their research education. We seek to broaden graduate education for science Ph.D. students who wish to pursue academic careers. In doing so, we wish to create a new generation of faculty who can better integrate their research and teaching, create and adapt progressive pedagogy, devise and implement educational assessment, and address issues such as globalization and diversity."

Most recently, Professor Coppola has devoted his insight and energy to help design an interdisciplinary course entitled Law, Ethics, and the Life Sciences, for the University's Life Sciences Initiative (LSI). The course, taught in the fall 2001 semester, introduces students to the scientific, legal and ethical dimensions of the life sciences.

# Faculty News

**Arthur J. Ashe** recently received funding from NSF and the Dow Chemical Company for his research on homogeneous catalysts which are used for Zeigler Natta polymerization of olefins. He was on sabbatical leave in the Fall term 2001 and used the opportunity to lecture at 15 universities in Germany.

**Mark Banaszak Holl** received a Dow Corning Award for "Towards a Fundamental Understanding of the Reactivity and Structure of Thin Films of Silicon Oxide Generated from Hydridosilsequioxane resin." He was also granted funding from the NSF for two research projects: "Synchrotron X-ray Photoemission Studies of Spherosiloxanes and Alkylsilanes on Gold" and "A Scanning Tunneling Microscopy Investigation of Spherosiloxane Clusters on Silicon Surfaces."

**Heather Carlson** has been named a Beckman Young Investigator. This three year award of \$240,000 from the Arnold and Mabel Beckman Foundation is made to faculty early in their careers with very attractive cross disciplinary research programs. Her proposal emphasized chemistry, biology and mathematical aspects of protein modeling.

**Zhan Chen** was a member of the department's graduate recruiting trip to China. Chen, along with Professors Coppola and Walter, initiated a chemistry textbook donation program with the goal of sending 500 used textbooks to each of the major universities in China over the course of the next year.

**Brian Coppola** was one of six faculty members chosen from across the university to receive a Thurnau professorship for outstanding contributions to undergraduate education. Coppola was also awarded a grant from the Department of Education GANN program: CSIE Chemical Sciences at the Interface of Education. Additionally, he received NSF funding for a University of Michigan REU site in chemistry, and was awarded a grant from the University of Michigan's Life Sciences Initiative for the development of an interdisciplinary course entitled "Law, Ethics, and the Life Sciences, taught by a team of faculty in the fall.

**David Curtis** received funding from the Department of Energy's Lawrence Berkeley Lab to investigate "Reactivity and Safety Aspects of Carbonaceous Anodes used in Lithium Ion Batteries." He was also given a three year grant from the NSF for "Controlling Solid State Structures of Conjugated Polymers: Optoelectronic and Transport Effects."

**Carol Fierke** received a patent for Photoluminescent Sensors of Chemical Analytes. She was awarded funding from the University of Michigan's Bioinformatics Pilot Grant Program for "A Proteomic Study of the Role of Metal Ions in Biology." Carol was a recipient of a Faculty Recognition Award for 2001.

**John Gland** received a grant from the Ford Motor Company's University Research Program for work on "Automotive NOx Traps: Materials and Mechanisms for NOx Storage and Reduction in Transient Environments."

**Richard Goldstein** in collaboration with Michael Thomashow (MSU) was awarded a grant from NASA for the "Center for Genomic and Evolutionary Studies on Microbial Life at Low Temperatures."

**Nancy Kerner** was appointed Chemistry Co-Leader for the Multimedia Educational Resource for Learning and Online Teaching (MERLOT). MERLOT is an online community of faculty, collaborating to improve the effectiveness of teaching and learning by expanding the amount of peer-reviewed online learning materials that can be incorporated into faculty designed courses. Kerner also worked on the Michigan Leadership Initiative's Curriculum Fusion Project focusing on Women in Science.

**Raoul Kopelman** received a citation and medal as "One of 2000 Outstanding Intellectuals of the 20<sup>th</sup> Century."

**David Lubman**, in collaboration with J. Tiedje (MSU) was given funding from NASA for participation in the "Center for Genomic and Evolutionary Studies in Microbial Life at Low Temperature."

**Anna Mapp** received a Research Innovation Award from the Research Corporation for "Dipole-Induced Dipole Interactions for Molecular Recognition in Biological Macromolecules." She was named a Burroughs Wellcome Fund New

Investigator in Toxicology and was given a Rackham Faculty Grant for "Artificial Transcription Factors for Regulated Gene Expression."

**Mark Meyerhoff** was awarded a grant from the Michigan Life Sciences Initiative for his study "Electron-Relay Enabled Immunosensor."

**Mike Morris** received funding from the NIH to continue his study of hard tissue material. The grant is for "Mechanical and Biological Influences on Bone Response-Structure Function Core".

**James Penner-Hahn**, along with Carol Fierke, P.I. was awarded funding from the University of Michigan's Bioinformatics Pilot Grant Program for "A Proteomic Study of the Role of Metal Ions in Biology." He also received funding from NIGMS for "Structural Investigations of Metalloprotein Metal Sites."

**Ayyalusamy Ramamoorthy** received funding from the Michigan Life Sciences Initiative for "Infrastructure Supporting the Michigan Life Science Corridor: Michigan Center for Structural Biology."

**Paul Rasmussen** is continuing on a grant from the Sloan Foundation for minority student recruitment. He also received funding from PRF for research on "Material Consequences of High Symmetry and Broken Symmetry." Anthony Francis is a Co-PI.

**William Roush** was awarded a grant from NIH/NIGMS for "Synthesis of Polyoxygenated Natural Products." He also received funding from Eli Lilly & Co. for unrestricted research.

**Roseanne Sension** received NSF funding for three research studies: "Ultrafast Studies of Energy Redistribution in Condensed Phase Chemical Reactions"; "Acquisition of an Optical Parametric Amplifier (OPA) Laser System"; and "FOCUS: Frontiers in Optical Coherent and Ultrafast Science."

**Nils Walter** was awarded an NIH grant for "Folding and Function of the Hammerhead and Delta Ribozymes."

**Omar Yaghi** received funding from BASF corporation for his path-breaking studies of catalysis using MOF's. The award is for "MDF: Metal-Organic Frameworks in Catalytic Applications"



# Symposia/Seminars

The seminar program was especially busy. The following were particularly noteworthy events.

## Pfizer Symposium

The 7<sup>th</sup> Annual *Challenges in Contemporary Chemistry Symposium* was held in Ann Arbor on May 11, 2001. An annual event, the symposium is sponsored by Pfizer Global Research and Development and organized by the University of Michigan's Chemistry Department. The symposium provides a way for chemists from around the world to showcase their work at the UM.

The topic of this year's meeting was Contemporary Challenges in Organometallic Chemistry. Speakers included, Professor Alois Furstner, Max Planck Institut fur Kohlenforschung; Professor Stephen Buchwald, Massachusetts Institute of Technology; Professor Scott Denmark, University of Illinois-Urbana Champlain; and Professor David Evans, Harvard University. The following is a list of this year's lecture topics.

Alois Furstner "Alkene and Alkyne Metathesis: Complementary and Competing Transformations"

Stephen Buchwald "Metal-Catalyzed Carbon-Carbon and Carbon-Heteroatom Bond-Forming Processes: Advances and Applications"

David Evans "Chiral Metal Complexes in Asymmetric Synthesis"

Scott Denmark "New Vistas in Catalysis with Organosilicone Reagents"

## Werner E. Bachmann Lecture

The 40<sup>th</sup> Annual Werner E. Bachmann Lecture was held in May. The honoree was Prof. Robert H. Grubbs of the California Institute of Technology. He spoke on the development of catalysts for olefin metathesis, followed by a reception and dinner at the Campus Inn. The annual lecture is supported by the Bachmann endowment fund and a gift from Pfizer.

## Coucouvanis Symposium

A symposium was held on the afternoon of April 20, 2001 to celebrate the 60th birthday of Dimitri Coucouvanis. The event was organized by Joseph Marino and Omar Yaghi. The speakers were introduced by Paul Rasmussen who acted as moderator. He also provided some commentary, light and serious, on Coucouvanis' career and exploits both scientific and personal.

The symposium presentations were given

by David Curtis (UM), John Fackler (Texas A&M), Kostas Demadis (Nalco Chemical), Jon Zubieta (Syracuse), Mercuri Kanatzidis (MSU), Stephen Lippard (MIT). Summary remarks from Rick Francis representing the department and LSA in his role as associate dean for research concluded the afternoon session. A reception and dinner followed along with a salute and friendly roasting from various colleagues and former students. Joe Marino concluded a very festive celebration with the announcement that Dimitri would receive an appointment as a Collegiate Chair Professor commencing in the 2001-02 academic year.

# Graduate Program News

## Annual Awards

During the annual awards ceremony, a number of outstanding students were recognized for their research, teaching, and academic achievements.

## Outstanding Graduate Student Instructor Award

Awarded to graduate students who taught undergraduate courses in Chemistry during the 2000-2001 academic year. Winners are chosen based on their contribution to innovation in the lab or classroom, teaching evaluations, and written recommendation of faculty supervisor.

2000-2001 Award Winners were: **Il Won Kim** (Rasmussen), and **Nathan Shaeffle** (Sharp).

## Outstanding Graduate Student Research Award

Awarded to graduate students based on research advisor recommendation, publications, posters, meeting presentations, uniqueness and nature of research.

The award winners were **Hung Wei Chih** (Marsh) and **Kenneth Nicholson** (Banaszak-Holl).

## American Chemical Society Outstanding Graduate Student Award for Research and Teaching

This award is given by the Huron Valley Section of the American Chemical Society. It is intended to recognize achievement in teaching and research by a graduate student.

The 2000-2001 award recipient was **Jose Silva Santos** (Ramamoorthy).

## Milton Tamres Outstanding Teaching Award

This award is given in honor of Professor Milton Tamres to recognize outstanding cumulative teaching service.

The winner for 2000-2001 was **Crystal Densmore** (Rasmussen).

## The Bob and Carolyn Buzzard Leadership Award

The leadership award is given to a graduate student who has shown the skills of a leader of many. This award is sponsored by Bob and Carolyn Buzzard, friends of the Department. The person selected for this award takes an active role in the Department – assisting with graduate recruitment; working with faculty and staff to provide a better environment for graduate students; also serves as morale and welfare support person. The 2000-2001 winner was **Stacey Nevins** (Meyerhoff)

The Department offered awards this year to recognize outstanding achievement by a first, second, and third year student.

*Outstanding First Year Graduate Student Awards* were presented to **Stephanie Gautt** (Fierke) and **Erin Wimmers** (Beck).

*Outstanding Second and Third Year Graduate Student awards* were presented to **Nat Rossi** (Yaghi) and **Nissa Westerberg** (Fierke).

## Graduate Student Fellowship Recipients

### Graduate Awards 2000-2001

#### American Chemical Society Outstanding Graduate Student Award for Research and Teaching

Jose Silva Santos

#### Abbott Fellowship

Brad Savall

#### Biophysics Training Grant

Jeremy Day (Fierke)

Dinari Harris (Walter)

Tom Kuntzleman (Yocum)

Amy Wu (Pecoraro)

Joslyn Yudenfreund (Pecoraro)

#### Bristol-Myers Squibb Fellowship

Don Warner (Vedejs)

#### Chemistry-Biology Interface Training Program Fellows

Anthony Boitano

Megan Frost (Meyerhoff)

Stephanie Gantt (Fierke)

Kirk Hering (Pearson)

Sarah Ingalls (Goldstein)

Craig McClure (Penner-Hein)

Aaron Mintor

Jessica Pankuch (Coward)

Beth Knapp (Roush)

Jennifer Pickett (Fierke)

Jeremiah Powers (Pearson)

#### Graduate Assistants in the Area of National Fellows

Matthew Alexander (Coward)

Cory Emal (Roush)

Roxanne Kunz (Roush)

Stacey Nevin (Meyerhoff)

Mark Wilson (Beck)

#### Graduate Degrees for Minorities in Engineering and Science (GEM)

Jason Brown (Curtis)

#### Hoffman-La Roche Award

Don Warner (Vedejs)

#### Hughes Postdoctoral Fellow

Katherine Henzler (Ramamoorthy)

#### IGERT Fellowship

Jessica Blunt (Hessler) (Banaszak Holl)

Chad Brick (Laine)

Matthew Brukwicki (Curtis)

Brett Duersch (Beck)

Joe Gallegos (Francis)

Kevin Hallock (Ramamoorthy)

Tom Hinklin (Laine)

Ilana Kasman (Kopelman)

Tom Krebsbach (Zellers)

William Lai

Greg Less (Rasmussen)

Kevin Lewis (Matzger)  
Andy Marsh (Gland)  
Andrew Millward (Yaghi)  
Joel Nemes (Curtis)  
Kevin Schneider (Banaszak Holl)

Kodak Fellowship

Aaron Aponick (Pearson)

Lilly Fellowship

Matthew Hartman (Coward)

National Science Foundation Fellowship

Zuzanna Cygan (Banaszak Holl)  
Scott Shaw (Vedejs)

Pfizer Fellowship

Neal Yakelis (Roush)

Pharmacia Fellowship

Kirk Hering (Pearson)

Pharmacology Training Grant

Morris Slutsky (Marsh)

Rackham Merit Fellows

Alan Barcon (Mapp)  
Joseph Gallegos (Francis)  
Zikiya Norton  
Caroline Pointer-Keenan (Geva)

Rackham One-Term Dissertation Fellow 2000-2001

Angela Carden (Morris)  
Glenn Micalizio (Roush)

Regents' Fellows

Jeffrey Bartolin (Banaszak Holl)  
Jeffrey Bednarski (Glick)  
Zuzanna Cygan (Banaszak Holl)  
Stephanie Gantt (Fierke)  
Matthew Hartman (Coward)  
Katherine Henzler (Ramamoorthy)

Maria Rhodes (Walter)  
Scott Shaw (Vedejs)  
Morris Slutsky (Marsh)  
Ryan Sweeder (Banaszak Holl)  
Nissa Westberg (Fierke)  
Erin Wimmers (Beck)  
Neal Yakelis (Roush)

Schalon Fellows

Karla Miller (Banaszak Holl)  
Kimberley O'Neill (Lubman)  
Lloyd Simons (Roush)

Specialized Program for Research Excellence in Prostate Cancer Fellowship

Nicole Crane (Morris)  
Jessica Pankuch (Coward)

Buzzard Leadership Award

Stacey Nevins (Meyerhoff)

Milton Tamres Outstanding Teaching Award

Crystal Densmore (Rasmussen)

Outstanding Graduate Student Instructor Award

Il Won Kim (Rasmussen)  
Nathan Shaefle (Sharp)

Outstanding Graduate Student Research Award

Hung Wei Chih (Marsh)  
Kenneth Nicholson (Banaszak Holl)

Outstanding First Year Graduate Student Award

Stephanie Gantt (Fierke)  
Erin Wimmers (Beck)

Outstanding Second/Third Year Graduate Student Research Award

Nat Rosi (Yaghi)  
Nissa Westerberg (Fierke)

# Doctoral Degrees

August, December, 2000 and May, 2001

**Jeffrey J. Bodwin** (Pecararo)

Inclusion of Chirality in the Copper (II) 12-Metallacrown-4 Framework and the Construction of 2-Dimensional Networks. *Dr. Bodwin has accepted a post-doctoral position at Michigan State University*

**Hengqin Cheng** (Laine)

Alkoxysilanes, Silatranes and Octahedral Silsesquioxanes from Silica.

**Stephanie M. Chervin** (Koreeda)

Synthesis of Sialyl Lewis X Mimetic as an Inhibitor of E-Selection Mediated Cellular Adhesion. A New Method for the In Situ Generation of Anhydrous Hydrogen Iodide in an Organic Solvent and its Use in Synthetic Reactions. *Dr. Chervin is a research associate at the University of Michigan Howard Hughes Medical Institute.*

**Bathsheba Chong** (Lubman)

Optical Nanosensors for Chemical Analysis Inside Living Cells. *Dr. Chong is a research chemist at 3M company in Minnesota.*

**Ellene T. Contis** (Griffin)

Study of Short-Lived Fission Products using the Gas Jet Method. *Dr. Contis is an associate professor at Eastern Michigan University*

**Carrie L. Coutant** (Sacks)

Programmable Selectivity and Fast Temperature Programming for High-Speed GC Analysis of Wide Boiling-Point-Range Mixtures. *Dr. Coutant is senior chemical analyst at Eli Lilly & Co.*

**Sheng Dai** (Meyerhoff)

Polyion-Sensitive Electrochemical and Optical Sensors: Principles and Applications. *Dr. Dai is a research chemist at Bayer Diagnostics in New York.*

**Garrett Dilley** (Roush)

Studies Directed Toward the Synthesis of Scytopyycin C. *Dr. Dilley is a manager of business development at Albany Molecular Research Corporation.*

**Xiangdong Fang** (Ashe)

Part A. Heteroaromatic Boron Compounds. Part B. Heteroaromatic Compounds Involving Heavier Main Group Elements. *Dr. Fang has accepted a post-doctorate position at the University of Chicago.*

**Daniel A. Hutta** (Pearson)

I. Azidomercurations of Alkenes: Mercury-Promoted Schmidt Reactions. II. Non-Stabilized 2-Azaallyl Anions: An Approach to Asymmetric 2-Azaallyl Anion Precursors and Mechanistic Studies. *Dr. Hutta is a research chemist at in New Jersey.*

**Xiaoying Jin** (Lubman)

Development of On-Line Chromatographic Separations/ Mass Spectrometry and Applications in Protein Analysis.

*Dr. Jin is a staff scientist at Genzyme Corporation in Massachusetts*

**Glenn C. Micalizio** (Roush)

Studies Directed Towards the Total Syntheses of Spongistatin 1 (Altohyrtin A) and Pectenotoxin II.

**Jeremey Miller** (Sharp)

The Influence of the Zero Field Interaction on NMR Paramagnetic Relaxation. *Dr. Miller has accepted a post-doctoral position at Van Andel Institute in Grand Rapids, Michigan.*

**Katrina Peariso** (Penner-Hahn)

Investigation of Zinc in Biological Systems Using X-Ray Absorption Spectroscopy. I. EXAFS Characterization of Zinc-Dependent Alkyltransferase Proteins; II. Exploring the Role of Zinc in the Early Development of Danio Rerio Embryos Using X-Ray Fluorescence. *Dr. Peariso has accepted a post-doctoral position at the University of New Mexico*

**Rebecca Peebles** (Kuczkowski)

Microwave Spectroscopy and Modeling of Weakly Bound Dimers and Trimers. *Dr. Peebles is completing a one-year appointment at Canisius College in Buffalo, New York.*

**Jay D. Pike** (Coucovanis)

Evaluation of the Transport Properties of a Crown Ether Functionalized Manganese(III) Salphen Complex: a search for Innovative Bio-Delivery Systems. *Dr. Pike has accepted a post-doctoral position at the University of Michigan.*

**Aaron Small** (Pugh, Pecoraro)

Induction of Smectic Layering in Nematic Liquid Crystals Using Immiscible Components. *Dr. Small is a research chemist at Reichold Inc. in North Carolina*

**Aaron M. Smith** (Meyerhoff)

Fundamentals and Applications of a Non-Separation Electrochemical Enzyme Immunoassay (NEEIA) System. *Dr. Smith has accepted a post-doctoral position at Roche Diagnostics Corporation in Indiana.*

**Laurie A. Yoder** (Barker)

Vibrational Energy Transfer in Molecular Collisions and van der Waals Clusters. *Dr. Yoder has accepted a post-doctoral position at the University of Michigan*

**Xiaoying Yu** (Barker)

B Kinetics of Free Radical Reactions Generated by Laser Flash Photolysis of OH+Cl<sup>-</sup> and SO + Cl in the aqueous Phase-Chemical Mechanism, Kinetics Data and Their Implications. *Dr. Yu is a research associate at Brookhaven National Laboratory in New York.*

## Masters Degrees Granted August 2000-May 2001

Matthew D. Alexander  
Kristen E. Balchus  
Garrette J. Belanger  
Christian F. Casper  
Amanda J. Culbertson  
Dinari A. Harris  
Ilana N. Kasman

Thoms L. Kresbach Jr.  
Edwin J. Park  
Rebecca E. Plummer  
Steve F. Poon  
Jeremiah David Powers  
Lloyd J. Simons  
Annabel D. Van Noord

## Undergraduate Program News

### ACS Student Affiliates

This year's ACS student affiliates continued to expand their educational outreach by working in area schools, volunteering for community programs, and hosting demonstrations at nonprofit organizations such as the Ann Arbor Hands-On Museum.

The University of Michigan chapter of ACS has been active in fostering outreach and educational programs to the university and surrounding community for over a decade. In 1999, the UM chapter received the Outstanding Student Affiliates Chapter Award at the ACS National Meeting.

Among the groups many activities is the Kidscience Summer Outreach Series, held in midsummer. A two-week educational program, the Kidscience series brings 2<sup>nd</sup>-5<sup>th</sup> graders to campus each year, allows them to participate in elementary experiments, exposes them to a realistic laboratory environment, and teaches them the fundamentals of the scientific method.

Other highlights of the groups' 2000-2001 events included scientific demonstrations held on the Diag as part of National Chemistry Week, and a presentation on the Kidscience Summer Outreach Series delivered at the National ACS Meeting in San Diego in early April. The groups goals for the upcoming year

include recruitment of new members, particularly first and second year students, and greater collaboration with other science student groups on campus.

### 2000-2001 ACS Officers

Co-presidents, Nicole Tuttle and Meredith Miller; Vice-President, Sarah Cavins; Treasurer, Secretary - to be determined

### Sokol Visit

Each year the department sponsors a reception to welcome distinguished benefactress, Mrs. Margaret Sokol to campus. This year's reception was held on April 3, 2001 in the Dow Chemistry Building. The yearly visit provides an opportunity for Mrs. Sokol to meet with current and past recipients of the Margaret and Herman Sokol Fellowship.

Established in 1991, the fellowship is awarded on a yearly basis to eight incoming freshmen. The 2001-2002 Undergraduate Sokol Scholars were: Todd Davis, Maristella Evangelista, Stacy Finkbeiner, Andrew Getsoian, Max Helveston, Margaret Weston, and Emilie Yane. In addition to the Sokol Scholars program, Mrs. Sokol is responsible for



*Margaret and Herman sokol Scholars (left to right) Stacy Finkbeiner and Margaret Weston. (Not present) Todd Davis, Maristella Evangelista, Andrew Getsoian, Max Helveston, emilie Yane*

the Margaret and Herman Sokol Faculty Award in the Sciences program. Faculty award recipients are selected by Rackham Graduate School and give a lecture on campus in the spring. The 2000-2001 Sokol faculty award recipient was Philip H. Bucksbaum, the Otto Laporte Professor of Physics. Professor Bucksbaum's lecture, entitled Quantum Control, was delivered on April 2nd in the Rackham Amphitheater and was followed by a reception hosted by Dean Earl Lewis, Vice-Provost for Academic Affairs and Dean of the Graduate School.

## Research Experiences for Undergraduates (REU) Program Summer 2001



2001 REU Welcome luncheon

The National Science Foundation creates research opportunities for undergraduates to join research projects each summer. One of the principle vehicles of NSF support for such projects is through the Research Experience for Undergraduates (REU) program.

The REU program involves students in on-going research projects and proposals being conducted at the

University of Michigan, and thus allows them to experience first-hand how basic research is conducted at an internationally prestigious university.

For the past 13 years, the University of Michigan has invited students from around the country to spend a summer on campus working closely with faculty and graduate student mentors, conducting research in their area of interest. The REU program is an excellent way to reach into the student talent pool and encourage the participation in chemical research of women, underrepresented minorities, per-

sons with disabilities, and students from institutions where research opportunities may be limited.

The Department of Chemistry provides abundant opportunities for individuals to work in tandem as researchers, educators, and students, engaged in joint efforts that encourage educational discovery through a range of learning perspectives. The REU program reflects the Department's conviction that collaborative intellectual relationships are an essential component of successful learning experiences. Dr. Brian P. Coppola coordinates the Department's REU program, which runs for 10 weeks during the summer.

In response to the increasing requests from non-U.S. citizens for summer research experience such as the REU program provides, the UM Rackham Graduate School this year provided matching funds to bring 2 such undergraduate researchers onto campus in an expansion of the traditional program. Professors Banaszak-Holl and Barker each contributed to the support for Ms Fern Edwards and Ms Yasuko Antoku, respectively. The department is excited by the prospect on continuing this activity in the future.

### Summer 2001 REU Participants

Mark Ams  
Yasuko Antoku  
Fern Edwards  
Mary Falgout  
Melissa Knight  
Yao Liu  
Cruz Marrero  
Jenny Powers  
Matthew Stewart  
Michael Stewart  
John Thomas  
Kristin Wustholz

Albion College  
Fairmont State College  
Cameron University  
Trinity University  
Cal Poly San Luis Obispo  
Harvard University  
University of Puerto Rico  
Hillsdale College  
Wittenberg University  
Wittenberg University  
Kalamazoo College  
Muhlenberg College

Professor Coucouvanis  
Professor Barker  
Professor Banaszak-Holl  
Professor Walter  
Professor Sension  
Professor Mapp  
Professor Coucouvanis  
Professor Pearson  
Professor Beck  
Professor Matzger  
Professor Vedejs  
Professor Sension

### Undergraduate Horizons

Career options for our chemistry and biochemistry graduates vary: graduate school in various area, medical school, MD/PhD programs, industrial internships, public health, secondary teaching, and employ-

ment in industry are a few examples. For the year 2000-2001 chemistry degrees totaled thirty two, biochemistry had forty four and twelve students concentrated in both programs.

## Undergraduate Awards

The undergraduate awards ceremony in April 2001 was held in the Michigan League Vandenberg Room. The guest speaker was Professor Shirley Neuman, Dean of LSA, Professor of English Language and Literature and of Women's Studies in the College of Literature Science and the Arts. Professor Neuman spoke on how well chemists

and biochemists are prepared for many careers in industry, academia or government. In addition Professor Wilbur Bigelow attended, meeting the Carlene Friedley Scholarship awardees, a scholarship given in memory of his wife Alyce Carlene Friedley. Guest Dr. Eva Feldman, Professor of Neurology and mentor to Sarah Uhler, presented Sarah with the second year outstanding student award.

## Undergraduate Awards and Sponsors – 2001

### **AIC Biochemistry Award**

Albert Chao (Koreeda)

### **AIC Chemistry Award**

Jennifer Chang (Coppola)

### **ACS Analytical Chemistry Award**

Shan-Mei Chiu (Beck)

### **ACS Outstanding Senior Leadership Award**

Scott Harrison (Coward)

### **AXE Outstanding First Year**

Corey Miller

### **Carlene Friedley Scholarship**

Shan-Mei Chiu, Alefiyah Mesiwala, Samantha Tarras, Nicole Tuttle

### **CRC Outstanding Freshman Achievement Award**

Elizabeth Cooper

### **Dow Elanco Award**

Chad Stasik (Matthews)

### **First Year Chemistry Achievement Awards**

Donald Allison, Thomas Chappell, Caleb Green, Bethany Percha, Christopher Rentsch, Jason Rush, Hui Shan, Semyon Zarkhin

### **Goldwater Scholar**

Sarah Uhler (Feldman)

### **Honors College Vanko Award**

Eric Hyun (Marsh)

### **Lubrizol Scholarship**

Ian Stewart (Coppola)

### **Merck Index**

Sara Aeschliman (Ballou), Angkana Roy (Engelke), Nicholas DeHaan (Rasmussen), Mark Zakaria (Ballou), Jonathan Perry (Koreeda)

### **National Starch Scholarship**

David Rosen (Coward)

### **NSF Graduate Fellowship**

Desiree Thayer (Maddock)

### **Outstanding Second Year Student**

Sarah Uhler (Feldman)

### **2000-01 Margaret and Herman Sokol Scholarship**

Todd Davis, Maristella Evangelista, Stacy Finkbeiner, Andrew Getsoian, Max Helveston, Margaret Weston, Emilie Yane

### **S.N. Ege WISE Award**

Desiree Thayer (Maddock)

### **Summer Research Funding**

#### **Abbott Labs**

Dustin Bringley (Matzger), Alefiyah Mesiwala (Mapp), Adam Grzesiak (Matzger), Lecia Harmer (Koreeda)

#### **Alumni**

Steven D'Sa (Coward), Joseph Wachter (Yaghi), Corey Miller, Sarah Zeile (Coppola), Sarah Uhler (Walter), Semyon Sarkhin (Koreeda)

#### **Amoco Foundation**

Gary Klein (Meyerhoff)

#### **Gomberg**

Justin Christy, Nicole Tuttle (Vedejs), Hillary Peltier (Townsend)

#### **Harris**

Phillip Sekella (Walter), Pamela Wong (Fierke)

#### **Pfizer Inc.\***

Ross Smith (Pearson), Ian Stewart (Coppola)

#### **PPG**

Michael McCormick (Pecoraro)

#### **Pharmacia & Upjohn Foundation**

Andrew Weiss (Vedejs), David Wenzler (Matzger)

*\*denotes national fellowship*

## Award Recipients



*Summer Research Fellowships (front left to right) Nicole Tuttle, Pamela Wong, Hillary Peltier, Alefiyah Mesiwala, Dustin Bringley (second row left to right) Phillip Sekella, Gary Klein, Andrew Weiss, Joseph Wachter, Adam Grzesiak, Justin Christy, Lecia Harmer (back left to right) Michael McCormick, Ross Smith, Ian Stewart, David Wenzler*



*WISE Award (left to right) Margaret Krasnoff, Desiree Thayer, Prof. Seyhan Ege*



*Scholarships (left to right) David Rosen, Ian Stewart*



*Carlene Friedley Scholarship (left to right) Samantha Tararas, Nicole Tuttle, Prof. Wilbur Bigelow, Alefiyah Mesiwala, Shan-Mei Chiu*



*Outstanding Second Year Award (left to right) Sarah Uhler, Dr. Eva Feldman*



*ACS Award (left to right) Prof. Anna Mapp, Scott Harrison, Prof. Brian Coppola*



*AXE Awards (left to right) Ron Smaldone, Corey Miller, Prof. Brian Coppola*





Upperclass Awards (front left to right)  
Jennifer Chang, Albert Chao, Angkana Roy,  
Mark Zakaria, (back left to right) Jonathan  
Perry, Chad Stasik, Nicholas DeHaan, Eric  
Hyun, Prof. Joseph Marino, Sara  
Aeschliman, Shan-Mei Chiu



First Year Awards (front left to right) Semyon  
Zarkin, Hui Shan, Caleb Green, (back left to  
right) Thomas Chappell, Jason Rush, Bethany  
Percha, Donald Allison, Corey Miller,  
Elizabeth Cooper

## Bachelors Degrees

August, December, 2000 and May, 2001

### Chemistry

**Jennifer S. Chang** (*Coppola*)\* – medicine (Harvard MD/PhD)

**Clara C. Chen** (*Meyerhoff*) – medicine

**Ryan K. Cowell** – Pfizer Ann Arbor

**Nicholas H. DeHaan** (*Rasmussen*) – research assistant (U Michigan and U Konstanz)

**Nathan J. DeYonker** (*Coucovanis*) – chemistry (California Institute of Technology)

**Kien S. Du** (*Mapp*) – Pfizer Ann Arbor

**David G. Fichtner** (*Matzger*) – Cayman Chemical

**Scott T. Harrison** (*Coward*)\* – chemistry (Scripps Institute)

**Albert M. Hilton** (*Beck*) – chemistry (Purdue)

**Leah Hollier** (*Curtis*) – Xerographic Solutions

**Jong-Won Hyun** (*Massey*)\* – law (Loyola Chicago)

**Roberto F. Iaderosa** (*Ashe*) – pharmacy (U Michigan)

**Brain J. Jordan** (*Ashe*) – Flint Ink

**Thomas B. Lanni** (*Townsend*) – Pfizer Ann Arbor

**David M. Liepman** (*C. Evans*) – IBM

**Jeff M. Liou** (*Kerner*)

**C. Raffi Najarian** (*Curtis*)\* – public health (U Michigan)

**Eugenia Njolito** – Merck

**Neelesh C. Nundkumar** (*Goldstein*)

**Jonathan M. Perry** (*Koreeda*)\* – medicine (Wayne State)

**Dipali G. Sashital** (*Peliska*)\* – biochemistry (U Wisconsin)

**Chad N. Stasik** (*Matthews*)\* – medicine (UMichigan)

**Desiree A. Thayer** – biochemistry (Scripps Institute)

**Jonathan E. Timbers** – work in chemical engineering

**John M. VandenBrooks** (*Yaghi*)\* – paleontology/geochemistry (Yale)

**Julie A. Wellnitz** (*Curtis*) – Flint Ink

**Erika Wong** (*Laine*) – Lilly

**Leah A. Yageman** (*Carroll*) – work then grad school

**Amie S. Yang** (*Coucovanis*) –

**Mark A. Zakaria** – research assistant (Harvard Medical School Joslyn Clinic)

### Biochemistry

**Sara M. Aeschliman** (*Ballou*)\* – medicine (U Michigan)

**Aziz A. Al-Katib**

**Melike Bayram** – medicine (Northwestern)

**Zain Bengali** – IBiS graduate program (Northwestern)

**Annemarie Bonawitz** (*Gafni*) – medicine

**Andrew P. Budor** (*Penner-Hahn*)

**Jeffrey M. Buis** – bioinorganic chemistry (Michigan State)

**Shaun J. Cardozo** – medicine (Wayne State)

**Angela G. Cassar** (*Thompson*) – dentistry (U Michigan)

**Jennifer S. Chang** (*Marletta*)\* – medicine (Harvard MD/PhD)

**Albert H. Chao** (*Koreeda*)\* – medicine (Chicago MD/PhD)

**Clara C. Chen** – medicine

**Marc L. Cohen** (*I. Goldstein*)

**Nicholas H. DeHaan**

**Victor Feldbaum** (*Agranoff*) – medicine (Wayne State)  
**Elena Garcia** (*Penner-Hahn*) – bioengineering (U Washington)  
**Brandon N. Giroux** – research assistant (U Michigan Biological Chemistry)  
**Scott T. Harrison** (*Coward*) – chemistry (Scripps Institute)  
**Jennifer Hung** (*Coward/Lee*) – Pfizer, then medicine  
**Eric D. Hyun** (*Marsh*)\* – medicine (Baylor MD/PhD )  
**Adam J. Janco** (*Peliska*)\*  
**Gerard P. Jenkins**  
**Darlene A. Johnson** (*Penner-Hahn*)\* - medicine (Medical College of Ohio)  
**Leah M. Johnson** (*Matthews*)  
**Tamara N. Kouskoulas** (*Vojtek*) – medicine (U Michigan)  
**Michelle Y. Kurkowski**  
**Daniel D. Mulligan** (*Peliska*)\* – medicine (Medical College of Ohio)  
**Jukes P. Namm** – medicine (Loma Linda)  
**Jonathan M. Perry** (*Koreeda*) – medicine (Wayne State)

**Michael S. Puckett**

**Pamela A. Reid** (*Vojtek*)\* – medicine (Wayne State)  
**Erica L. Romblom** (*Menon*) – immunology (UCLA ACCESS program)  
**Ankana Roy** (*Engelke*) – medicine (Columbia)  
**Carolyn Seim**  
**Jungsan Sohn** (*Fierke*)\* – biochemistry (Duke)  
**Chad N. Stasik** (*Matthews*)\* – medicine (UM)  
**Desiree A. Thayer** (*Yocum/Maddock*)\* – biochemistry (Scripps Institute)  
**Edisa Tokovic** (*Zand*)  
**Emily R. Watters** (*Kent*)  
**Kimberly M. Whitmer**  
**Bernard C. Yoo**  
**Leah A. Yageman**  
**Mark A. Zakaria** (*Ballou*)\* – research assistant (Harvard Medical School Joslyn Clinic)

\*=Honors



*Undergraduate Graduation Reception, April 27, 2001*

# Gifts

Contributions from private and corporate donors received from July 1, 2000 – June 30, 2001

(\* Indicates corporate matching funds.)

Abbott Laboratories Fund  
Karen M. Adams  
American Chemical Society\*  
American Heart Association, Inc.\*  
American Home Products Corp.\*  
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Constance P. Baker  
Herbert Bandes  
BASF Corporation-Headquarters\*  
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Danette A. Dudley  
Alan M. Dunker  
David W. Ebdon, Ph.D.  
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Douglas Einstadter  
David W. Emerson

Exxon-Mobil Foundation\*  
Pui Luen Fan  
Larry E. Fink  
Gerald David Fong  
Ford Motor Company Fund\*  
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Erich Joseph Gess  
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Marilyn A. Gloyer  
The Goodyear Tire & Rubber\*  
Michael D. Gordon  
Thomas W. Gougeon  
David Greenblatt, M.D.  
Ronald A. Greinke  
John L. Griffin  
George A. Grove  
Janet C. Haartz, Ph.D.  
Stanley F. Hajec  
Prof. David J. Hart  
Roger M. Hawk  
Rebecca D. Henry  
Mary Ellen Heyde  
Kathy J. Dien Hillig  
Terrence K. Hilty  
Walter M. Holloway, Jr.  
Philip T. Holt  
Thomas Houser  
Richard M. Howlett  
Jeffrey D. Hsi  
Elizabeth A. Hugel  
C. Frederick M. Huntley  
Instrumentation Laboratory  
J. Fraser Jackson, M.D.  
Thomas M. Jackson  
Theodore G. Jacob  
Norman P. Jensen  
Henry W. Kao  
Phyllis E. Karseboom  
John C. Kath  
Alexander W. Kennedy  
Norman H. Knight  
Susan G. Komen Breast Cancer FD  
Thomas J. Korniski  
Edgardo Laborde  
J. M. Lagowski, Ph.D.  
Robert A. Landowne  
Lisa A. Lanning  
Yiu C. Leung  
Laura J. Liebler  
Eli Lilly & Company Foundation\*  
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Richard N. Loeppky  
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George B. Lowrie III  
Mary Louise Lowther  
The Lubrizol Foundation  
Lucent Technologies Foundation\*  
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Jen-Jen Liu Mao  
Myrtle S. McLain, M.D.  
James D. McLean  
The Merck Company Foundation\*  
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Mary Haven Perry  
The Pfizer Foundation\*.  
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Thomas Michael Rosseel  
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James M. Samanen  
Schering-Plough Foundation, Inc.\*  
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Erich Schulz  
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Joseph W. Shepard, Ph.D.  
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Zhong-You Shi  
John Treanor Smith  
Smith-Kline Beecham Foundation\*  
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Telcordia Technologies\*  
James Hunter Thirtle  
Richard F. Tomko  
John K. Tomlinson  
Taft Yutaka Toribara  
George C. Towe  
Mary L. Trawick  
Jonathan Scott Treisman  
Kelly Bruce Triplett

Hing Cheung Tse  
Howard H. Un  
Ronald L. Vollmer  
Andrew Carr Watson  
William W. Wilkinson, M.D.  
P. Douglas Williams  
Brenda J. Wojciechowski  
Joel R. Wolfe  
William K. C. Wong

**Alfred P. Sloan Foundation**

Alfred P. Sloan Foundation

**Bachman Lecture**

Wayne Cole  
Robert A. Gregg  
Leland H. Pence, Ph.D.  
John A. Petrasky  
Howard Siefen  
Evelyn P. Tyner  
USX Foundation, Inc.\*

**Chair's Discretionary Fund**

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Howard Paul Hetzner  
PPG Industries Foundation  
The Proctor and Gamble Fund  
Edwin & Roberta Przybylowicz Fund

**Chemistry Equipment Fund**

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Telcordia Technologies\*

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Eastman Kodak Company

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Omer E. Robbins, Jr.  
Helen S. Schaefer

**P.A.S. Smith Scholarship**

Robert F. Edgerton  
Jerome P. Horwitz

**Parry Scholarship**

Earl R. Alton, Jr.  
Suzanne Marie Fleming  
Charles W. Heitsch  
Alfred J. Kiessel, M.D.  
Minnesota Mining and Manufacturing\*  
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Donald R. Schultz  
Duward F. Schriver, Ph.D.  
Masanobu Yamauchi  
Yoke Family Trust

**Helen S. Schaefer Scholarship**

Helen S. Schaefer

**Special Scholarships**

Irving M. Adler  
Robert A. Buzzard  
American Chemical Society of Washington, D.C.  
Elmer G. Carlson, Jr.  
Eli Lilly and Company  
Eli Lilly and Company Foundation\*  
David W. Emerson  
Pfizer, Inc.  
Pharmacia  
Clarence A. Phillips, Inc.  
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Jack Sweet  
Andrew Carr Watson  
Western Michigan University

**Milton Tamres Outstanding Teacher Award**

Arthur J. and Penelope Ashe  
L.S. and Joy Bartell  
Barbara T. Booker  
Donald and Marjorie Carter  
Dimitri and Judith Coucouvanis  
James K. Coward  
M. David Curtis  
Harold B. Doremus  
Claudine Farrand and Daniel Moerman  
Sister Suzanne Fleming  
S.K. and Jacqueline Gangwere  
Millicent and Ian Higgins  
Paul R. and Meredyth Jones  
Samuel and Marilyn Krimm  
Robert and Ann Kuczowski  
Lois MacLeod  
Michael and Leslie Morris  
Christer E. Nordman  
Paul Rasmussen  
Jane and Doug Smith  
William and Gloria Stapp  
Aaron Stern  
Joel Stern  
George C. and Patricia Stewart  
Ned and Mary Jane Thomson  
Cordell and Marie Tindall  
Edwin Vedejs  
Monique Wagner  
John and Carolyn Wiseman  
Margaret Winkelman

**Willard Memorial Fund**

GE FUND\*  
Mineral Services/Harold William Miller  
Michael D. Morris  
Richard B. Northrop  
Graham D. Stewart  
Taft Yutaka Toribara



*Student research*



# Alumni News

E-Mail: chem.alum@umich.edu

If errors or misstatements are noted in any of the following items, the Editors of the Newsletter would appreciate such being called to their attention. Mistakes can, and do, inadvertently or due to errors in the official records, creep in. Corrections can easily be inserted in the next edition.

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## 1940 - 1949

**Yuma W. (Stahmer) Deackoff** (BSC 1946) worked as a chemist for only a couple of years then retired for 15 years to raise a family. When she returned to the work force, it was as a programmer. She is now retired and lives in Massachusetts.

**William J. Miller** (BS 1948; MD 1953, Wayne State Univ.) has retired and lives in Livonia, Michigan. He is a past president of the Detroit Occupational Physicians Association and of the Michigan Occupational and Environmental Medicine Society.

**Robert M. Sowers** (MS 1948) is living in Punta Gorda, FL.

**Leon M. Stock** (BSC 1952; PhD 1959, Purdue Univ.) a former director of the Argonne National Laboratory has now retired moved to Portland, OR.

**William W. Wilkinson** (AB 1947, MD 1951) has retired and is living in Whittier, CA.

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## 1950 - 1959

**John R. Beljan** (BS 1951, MD 1954) writes as President Emeritus of Northrup University that he is happily retired and living in Northbrook, IL.

**John D. Boenke** (BS 1951) is now retired and living in Virginia.

**Wayne A. Cassatt** (PhD 1955, Meinke) has retired from the National Institute of Standards & Technology in Gaithersburg, MD.

**Joseph L. Cobane** (BA 1950, MBS) is Chairman Emeritus of Cobane & Associates in Detroit.

**David W. Emerson** (PhD 1958, Smith) has remained in Las Vegas after retiring as Dean and Professor of Chemistry at the University of Nevada at Las Vegas.

**John C. Peachey** (BS 1950; MD 1954, Univ. of Rochester) is a dermatologist in Rochester, NY.

**Leon I. Rechtman** (BS 1950; DDS 1963, Univ. of Alabama) practices dentistry in Atlanta, GA.

**Evelyn F. (Gutenberg) Rice** (BS 1950) is a self employed attorney living in Berkeley, CA.

**Roy W. Roth** (MS 1953; PhD 1955, MIT (Sheehan)) spent twenty years as Department Head at the American Cyanamid Co. and then another twenty with the Army Research Office of the Federal Government in North Carolina. He has now retired and lives in Chapel Hill, NC. He entered Michigan planning to work with Werner Bachmann but after Bachmann's death, transferred to MIT where he completed his degree requirements with one of Bachmann's students.

**Donald R. Schultz** (BS 1940, PhD 1954, Parry) after retiring from the 3M Co. in Minnesota has been living in Arkansas for several years.

**Shirley E. (Eckwall) Schwartz** (BS 1957; PhD 1970, Wayne State Univ.) was inducted into the National Academy of Engineering in October of 2000. She is to receive the Forest R. McFarland award of the Society of Automotive Engineers in March of 2001. Her employer is the Research Laboratory of the General Motors Co. in Warren, MI.

**Martha B. (Wells) Stiles** (BS 1954) continues her activity as an author, recently bringing forth a picture book, "Island Magic", set on Grosse Isle.

**Ruth Anne (Hansen) Strong** (BS 1950; JD, Univ. of Arizona) is a retired attorney living in Tucson, AZ.

**Robert C. Wilcox** (BSC 1956; PhD 1961, UCLA) lives on Geddes Road in Ann Arbor.

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## 1960 - 1969

**Earl R. Alton** (PhD 1961, Parry) has retired to Florida after forty years at Augsburg College in Minnesota. During his tenure as Chemistry Professor, he also

was Associate Dean and Acting Dean for the college.

**Norman P. Arends** (BS 1957; MBA 1969, Univ. of North Carolina) after 12 years consulting in international trade, has created his own company to do more specialized consulting.

**Reuben L. Baumgarten** (PhD 1962, Smith) after 38 years at Hunter College in New York City has retired to New Jersey. He was chairman of the Chemistry Department for over seventeen years and author of two textbooks.

**John M. Bouwens** (BSC 1969) has been appointed Business Director of North America for Acheson Industries, part of the electronic and materials group of the National Starch Co.

**Diane L. (Hay) Burley** (BSC 1965; MS 1967, Univ. of California/Riverside; MS 1977, Rutgers Univ. (Appl. Statistics)) is manager of information technology for the Sulzer Process Pump Corp. in California.

**Dan G. Chapel** (BSC, BSE 1960; MSE 1962, Univ. of So. Calif.) is employed by the Fluor Daniel Corp. in California as Senior Vice President of Technology. He recently was elected as a Fellow of the American Institute of Engineers.

**John Costantino** (BSC 1969; DO, College of Osteopathic Medicine & Surgery, Iowa) received the teacher of the year award for 1999-2000 while teaching in the Dept. of Medicine at the Veterans Administration Medical Center in Phoenix, AZ.

**Donald M. Friedrich** (BSC 1966; PhD 1973, Cornell) is engaged in Telecom Product Development for the JDS Uniphase Corp. in California.

**Roland F. Hirsch** (PhD 1965, Rulfs) received the ACS Water's Award for distinguished service to Analytical Chemistry for 2000. He currently is Program Manager in the Medical Sciences Division of the Department of Energy.

**Susan L. (Harvill) Hixson** (BSC 1965; PhD 1970, Univ. of Wisconsin (Biochem)) serves as a Program Director for the National Science Foundation in Washington. She is on leave from Mount Holyoke College.

**James F. Lesniak** (BS 1965, JD 1968 (Law)) is an attorney with Knobbe, Martens, Oson and Bear in California.

**Gary E. McGraw** (BSC 1962; PhD 1965, Pennsylvania State Univ.) has begun his

term as President of the Council of Chemical Research. He retired in 1999 from Eastman Chemicals as Vice President for Technological Innovation.

**Frederick A. Morse** (PhD 1962, Berntein) has retired from the Los Alamos Scientific Laboratory and he and his wife are enjoying life seeing the country.

**Kurt E. Muendelein, Jr.** (BS 1964; MS 1972, Wayne State Univ.) retired in June of 2000 from the Fraser Public Schools where he had been a chemistry and mathematics teacher.

**Thomas E. Neal** (BSC 1964; PhD 1970, Univ. of North Carolina) retired from the Dupont Co. in 1999 and now is a consultant and expert witness on flame resistant clothing.

**Linda D. (Sage) Ray** (BS 1969; MS; MBA) is a Senior Business Consultant for International Profit Associates in Texas.

**Bruce A. Roberts** (BSC 1967; MBA 1974, Xavier Univ.) has retired from the Procter & Gamble Co. in Cincinnati.

**Charles D. Rowe** (PhD 1969, Smith) has accepted the position of Technical Director for the Stan Chem Co., Inc., in Southington, CT.

**Wayne M. Stringer** (BSC 1963; MS 1967, Michigan State Univ.) specializes in pesticides and their regulation for the State of California.

**Paul H. Wine** (BSC 1958; PhD 1974, Florida State Univ.) holds a joint appointment as Professor of Chemistry and Biochemistry and Professor of Earth and Atmospheric Sciences at the Georgia Institute of Technology. He also is a senior editor for the Journal of Physical Chemistry.

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## 1970 - 1979

**Karen M. Adams** (PhD 1977, Rasmussen) works for the Ford Motor Co. in Dearborn as a Senior Technical Specialist but lives in Ann Arbor.

**Dennis W. Brinkman** (PhD 1976, Sacks) retired from the Safety-Kleen Corp. in Illinois and now teaches at Indiana Wesleyan University.

**Paul B. Condit** (PhD 1970, Stiles) has moved to Florida after retiring as Director of Business Research for the Eastman Kodak Co.

**Thomas R. Fedor** (BSC 1975, MS 1983 (Cell & Mol. Biol.)) is employed as a forensic DNA analyst with the Serological Research Institute in Oakland, CA.

**Morgan L. Fitch** (BS 1973, JD 1976) is active in the field of patent law with Pitts & Brittan in Knoxville, TN.

**Jensen H. Groff** (MS 1971) is employed by the National Institute for Occupational Health & Safety in Ohio.

**James A. Holcombe** (PhD 1974, Sacks) has been appointed Chairman of the Chemistry and Biochemistry Department at the University of Texas at Austin.

**Jerome A. Klavons** (MS 1978) is engaged in agricultural research with the U.S. Department of Agriculture in Knoxville, TN.

**Andrea B. Miller** (BS 1978; MD 1998, McGill Univ.) is a resident physician at the Tucson Medical Center in Arizona. Before attending medical school, she was employed by the Upjohn Co. in Kalamazoo.

**Ann Mary Nefcy** (BS 1971; MS 1990, Univ. of Colorado) is a scientist with the Environmental Protection Agency in Washington, DC.

**Roy A. Periana** (BSC 1979; PhD 1985, Univ. of Calif/Berkeley) was recently featured in a Chem. & Engin. News article (C&EN March 26, 2001) on catalysis. He is an Associate Professor of Chemistry at the University of Southern California.

**Christopher Podsiadly** (PhD 1972, Overberger) is Vice President for research and development for DCP-Lohja, Inc., in Naperville, IL.

**Leonard E. Post** (BSC 1974; PhD 1979, Univ. of Wisconsin) has recently accepted the position of Senior Vice President for Research and Development with Onyx Pharmaceuticals in Richmond, CA.

**Kelly B. Triplett** (PhD 1974) is vice president and coordinator of world chemicals research for the Akzo Nobel Chemicals Corp.

**Mark H. Tucker** (BSC 1970, MD 1974) is Chief Medical Officer for the Family Health Plan of Toledo.

**Gregory A. Winters** (BSC 1976) has retired from the Gerber Products Co. and now is the owner of Cardinal Hill Cottages in Branson, MO.

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## 1980 - 1989

**Lee Ann Baron** (PhD 1984, Groves) has been appointed Chair of the Chemistry Department at Hillsdale College, Michigan.

**William T. Bresnahan** (PhD 1980, Elving) is an Engineering Associate for the Exxon Mobil Research & Engineering Co. in Virginia.

**Danae D. Christodoulou** (PhD 1989, Coucouvanis) is a review chemist with the Food & Drug Administration in Washington, DC.

**Renee I. (Schrott) Cribbins** (BS 1988) teaches chemistry and physics at the Lakeside High School in Suffolk County, VA.

**Hansi J. (Joerger) Dean** (BSC 1984; PhD 1992, Northwestern Univ. (Microimmunology)) is Director of Program Management for Powder Jet Vaccines in Wisconsin.

**Brian R. Dixon** (BSC 1985; PhD, MIT) is a research chemist in the pharmaceutical division of the Bayer Corp. in Connecticut. (See entry for **Julie Dixon** in the 1990 section).

**Guohong Du** (MS 1987; MBA, Rutgers Univ.) is a Project Manager for MacDermid, Inc., in Connecticut.

**Yvonne M. Fraticelli** (PhD 1982, Meyerhoff) currently is a Senior Research Associate at the Virginia Institute of Technology in Blacksburg.

**Scott P. Frederick** (BSC 1983) is on assignment in Germany for the Corning Co. of New York. He is employed as a Plant Manufacturing Engineer.

**D. Rachel Green** (BS 1986; PhD 1993, Harvard Univ. (Biochem.)) holds the position of Assistant Professor in the Molecular Biology and Genetics Dept. of Johns Hopkins University.

**Bruce N. Greve** (BSC 1982; ME, Univ. of Detroit) is Manager of Advanced Technology for the Budd Company in Detroit.

**Richard T. Guttman, Jr.** (BS 1988; MD 1992, Univ. of Illinois) is a general surgeon in Peru, IN.

**Adam J. Helman** (PhD 1989, Blinder) is a programmer for Peregrine Systems in San Diego. He works with the JAVA programming language and develops algorithms for business infrastructure.

**Richard M. Hesby** (BSC 1986; DDS) is serving in the U.S. Navy as a general dentist stationed at Virginia Beach.

**Craig S. Hoechstetter** (BS 1985; MBA 1993, Univ. of Pittsburgh) has moved from Los Angeles to Pittsburgh where he is Marketing Manager for the Bayer Corporation. He reports a son, Jaden, born in April, 2000.

**Suzanne L. (Herkimer) Hoerle** (BSC 1987) is employed by Phamacia, Inc., in Kalamazoo, MI, as an editor preparing the Chemical and Manufacturing Sections of New Drug Applications.

**Charles Z. Hotz** (PhD 1988, Smith) is Director of Chemistry for the Quantum Dot Corp. in California.

**Ming Jye Lan** (PhD 1985, Overberger) has moved to Utah and is a Senior Manager in the Product Development area for Fresenius Medical Care of North America.

**Lisa Ann Lanning** (BS 1986; PhD 1994, Univ. of Vermont) is a Chemistry Laboratory Manager for the Automotive Testing Laboratories in Cleveland Heights, OH.

**Daniel A. Linseman** (BSC 1987, PhD 2000 (Pharmacology)) is an Associate Investigator for the Denver Veterans Administration.

**Devi P. Malladi** (PhD 1981, Westrum/Filisko) is hardware manager for Sun Microsystems in California.

**Dawn A. Merritt** (BSC 1987; PhD 1993, Indiana Univ.) works in Michigan as a Senior Research Scientist in the Animal Health Dept. of the Pharmacia Corp. in Kalamazoo, MI.

**Andrew K. Morgan** (BS 1981) operates as the Vice President for customer service for the Perrigo Co. in Michigan.

**Gary A. Mueller** (BSC 1983, MD 1987) has accepted a position as Assistant Professor of Pediatrics at Wright State University in Ohio.

**Vincent G. Page, Jr.** (BSC 1993) reports he was married in July of 2000. He works as a plant chemist for the Eaton Corporation in Ann Arbor.

**Glenn H. Rayos** (BS 1983, MD 1989) is a cardiologist for Cardiology Consultants in Florida.

**John A. Sandin** (BS 1989, MD 1993) is a surgeon specializing in spinal problems at the Univ. of Alabama in Birmingham.

**Andrew C. Scheiner** (BSC 1983; PhD 1987, Univ. of California at Berkeley) is

a software engineer for Electronic Arts in Charlottesville, VA.

**Ronald S. Sonken** (BSC 1985; MD 1989, Uniform Services Univ.) has returned from Iceland and is now assigned as a general radiologist at the U.S. Naval Hospital in Pensacola, FL.

**Susan M. (Sosnowski) Szegedi** (BSC 1984; MS 2000, Michigan State Univ.) is a chemistry teacher in the Farmington (MI) Public Schools.

**Gregory A. Thomas** (BSC 1984; MD 1988, Wayne State Univ.) is a cardiovascular and thoracic surgeon in Wisconsin.

**James V. Tietz** (BSC 1980; PhD 1985, Univ. of Kansas) works for LAM Research in California as Managing Director of their Technology Development.

**Daniel J. Vargo** (BSC 1987; MD 1992, Baylor Coll. of Medicine) is an Assistant Professor in the Surgery Department of the University of Utah.

**Anton S. Wallner** (MS 1988; PhD 1992, Case Western Reserve Univ.) has joined Barry University in Florida as Professor of Chemistry and Chair of the Physical Sciences Division.

**Michaline B. Wentz** (BSC 1980; MBA 1987, Univ. of Houston) is a Senior Logistics Specialist in Texas. She was employed by the Union Carbide Corp. which now has been acquired by the Dow Chemical Co.

**P. Douglas Williams** (PhD 1985, Curtis) is a Process and Analytical Development Manager for Kalsec, Inc., in Kalamazoo.

**Michele R. Worden** (BSC & BSE 1988, MBA) is a management consultant for Pittiglio Robin & McGrath in Traverse City, MI.

**Pin-Pin Wu** (MS 1985, PhD 1989, Filisko (Macromol. Sci.)) is a Project Manager for Medtronic Interventional Vascular in San Diego, CA.

**James K. Young** (BSC 1985; PhD 1993, Univ. of South Florida) works for the 3M Corp. as a materials group leader in their telecommunication products plant in Texas.

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## 1990 – 1995

**Peter J. Alaimo** (BSC 1994; PhD 1999, Univ. of California at Berkeley) is a

postdoctoral scholar at the the University of California at San Francisco.

**Kristen Austin** (BS 1993; MD 1998, Medical Coll. of Virginia) is a resident physician in obstetrics and gynecology at the Kaiser Medical Center in Oakland, CA.

**David J. Borts** (MS 1994; PhD 1999, Purdue Univ.) is a Senior Scientist engaged in mass spectrometry for Glaxo Smith Kline, Inc., in Research Triangle Park, North Carolina.

**Jeanette M. Buckwalter** (PhD 1994, Meyerhoff) and her husband, Paul J. Emerson, are living in Indianapolis, IN.

**Shannon I. Chi** (BSC 1994; PhD 1998, Univ. of Calif/Berkeley) is employed by Millenium Pharmaceuticals as a research scientist. They are located in the Boston area.

**Tracy L. (Hill) Chinigo** (BS 1990) is employed by the Pharmacia Co. in Kalamazoo, MI, as a bioanalytical chemist.

**Kimber G. Clark-Baldwin** (PhD 1994, Penner-Hahn) continues to carry out research in the Molecular Genetics Department of the University of Cincinnati.

**Amy Jo (Wiersma) Cowart** (BS 1993; DO 1997, Michigan State Univ.) has completed her residency in Family Practice and has begun to practice in Massachusetts.

**Julie Ann Dixon** (BSC 1992; PhD 1998, Univ. of Illinois) and her husband, **Brian R. Dixon** (see 1985 section), both are employed by the Bayer Corp. in Connecticut.

**Kelly L. McDow-Dunham** (BS 1992; JD 1997, Chase College of Law) is now a Patent Attorney for the Procter & Gamble Co. in Cincinnati.

**Joseph T. Dvovich** (BS 1992, PhD 1998 (Environmental Health)) is an Assistant Research Scientist in the School of Public Health of the University of Michigan.

**Steven M. Firestine** (BS 1990; PhD 1995, Purdue University (Med Chem)) has taken a position as Assistant Professor of Medicinal Chemistry at Duquesne University.

**Brian R. Gibney** (PhD 1994, Pecoraro) is an Assistant Professor of Chemistry at Columbia University in New York City. He and his research group were recently featured in an article in Chem. & Engin. News (C&EN, March 26,2001).

**Karen A. (Kieler) Glover** (PhD 1994, Marino) is an Assistant Professor of Chemistry at Clarke College in Dubuque, IA.

**Anurag Govil** (PhD 1994, Morris) is living in Blue Bell, PA.

**Louis I. Grace** (PhD 1994, Lubman) has completed his stay in Israel as a postdoctoral scholar and has accepted a position in chemistry at the University of California, Santa Barbara.

**Jennifer (Ach) Green** (BS 1993; MD 1997, Univ. of Cincinnati) has completed her residency in obstetrics and gynecology in Cincinnati and is considering going into private practice.

**Lawrence G. Hamann** (PhD 1991, Koreeda) is a group leader in the metabolic disease area for the Bristol-Meyers Squibb Research Institute in New Jersey.

**Elizabeth E. Hamilton** (BSc 1994) is continuing her education as a graduate student in inorganic chemistry at Purdue University, working with Jonathan Wilker.

**Suzanne M. Harvey** (BS 1991; JD 1997, Franklin Pierce Law Center) has returned to Ann Arbor where she is a patent attorney for Pfizer, Inc.

**Jeffrey D. Hsi** (PhD 1990, Koreeda; JD, Rutgers Univ.) after completing law training has begun as a corporate counsel for the Amgen Corporation in Massachusetts.

**Hongmei Huang** (MS 1990; PhD 1995, Scripps Inst.) is a senior research scientist with Array Biopharma, Inc., in Colorado.

**Timothy E. Jiggins** (BSC 1992; MS 1996, Univ. of Alabama (Publ. Health)) is a Lieutenant in the U.S. Public Health Service, Demilitarization Branch, Center for Disease Control, assigned to the Atlanta, GA, office.

**Kirk W. Jobe** (BSC 1993; MD 1997, Wayne State Univ.) is a neurosurgery resident at Rush Hospital in Chicago.

**LaDonna M. Joseph** (BS 1991) is a quality assurance supervisor for the Minute Maid Co. in New Jersey.

**Kianoush Khaghany** (BS 1991; MD 1997, Michigan State Univ.) is a resident physician in obstetrics and gynecology living in Novi, MI.

**Sonya C. (Shah) Khatana** is living in Cincinnati.

**Mitchell E. Klausner** (BS 1993; MD 1997, Med. College of Ohio) is on the staff of Grace Hospital in Detroit in the

Department of Internal Medicine. He and his wife, Rebecca, have two sons.

**Michael A. Leenellett** (MS 1991) is a senior development analyst for the Alkermes Controlled Therapeutics Co. in Cincinnati.

**Aline C. Lindbeck** (PhD 1991, Pearson) is a Section Manager in the Fermentation Research Section of Abbott Laboratories in North Chicago.

**Bryan E. Little** (BS 1994; MD 1998, Wayne State Univ.) is a resident physician at the McGaw Medical Center of Northwestern University.

**Shahid M. Murtuza** (BS 1994; PhD 1999, Penn. State Univ.) after a brief period as a postdoctoral associate has begun a job with the General Electric Co. in Waterford, NY.

**David M. Pallister** (PhD 1994, Morris) is employed by the SKF USA Corp. in Plymouth, MI, as a tribologist and lubrication specialist. He reports two boys have been added to the family, ages seven and one.

**Megan B. Poetzel** (BSC 1994) has entered the law field and is employed as an attorney by Jenner & Block in Chicago, specializing in commercial litigation.

**Lourdes I. Puig** (PhD 1990, Sacks) is a Research Manager at the Stine-Haskell site of the E.I. duPont de Nemours Co. in Delaware.

**Lewis Rubinson** (PhD 1991) completed his MD at Northwestern in 1997 and a residency in internal medicine at UCSF. He is a Pulmonary and Critical Care Medicine fellow and concurrently a doctoral student in Clinical Investigation at Johns Hopkins University.

**David M. Seeger** (PhD 1991, Korzeniewski) has started a new company to provide a process for conditioning gas for the petroleum industry. He is treasurer and Director of Research.

**Amy L. Sierocki** (BSC 1990; PhD 1995, Illinois Inst. Tech. (Environmental Eng.)) works for the law firm of Jenkins & Gilchrist while she continues her studies as a law student at Loyola University in Chicago.

**Peter J. Stengel** (PhD 1994, Marino) is a senior research scientist with Array Biopharma in Colorado.

**James L. Szalma** (BS 1990; PhD (Psychology)) has left the field of chemistry and is now an Assistant Professor of Psy-

chology at the State University of New York at Farmingdale.

**Craig M. Thompson** (BS 1991; PhD 1999, Rensselaer Polytechnic) has accepted a position of Research Associate at the NASA Langley Research Center in Virginia.

**James V. Tietz** (BSC 1981; PhD 1985, Univ. of Kansas) works for LAM Research in California as Managing Director of their Technology Development.

**Susan M. Ward** (PhD 1990, Koreeda) has moved to England and works as a senior technical specialist for the Jaguar Car Corp.

**Edward J. Weinstein** (BS 1993; PhD, Harvard Univ. (Genetics)) is a senior biologist for the Pharmacia Corp. in Missouri. He and his wife report their first child, Shoshana, was born December 1, 2000.

**Cyndi A. Wells** (BSC 1994; PhD 1999, Univ. of Texas/Austin) completed her PhD requirements at the Univ. of Texas and is now a Postdoctoral Research Associate at the Los Alamos Scientific Laboratories.

**Douglas A. Whittington** (BSC 1994; PhD 2000, MIT) is continuing as a Postdoctoral Associate with Christiansen group at the University of Pennsylvania.

**Lorraine C. Yu** (PhD 1991, Francis) is now a senior program manager for the Microsoft Corp. in Washington state.

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## 1996 – 1999

**William M. Ahrens** (BSC 1997; MD 2001, Michigan State Univ.) plans to begin a family practice in Grand Rapids in July of 2001. He and Cheryl Kartub were married in November of 2000.

**Laura Jane (Emerich) Anna** (PhD 1996, Marino) is an Assistant Professor of Chemistry at Millersville University in Pennsylvania.

**Renee A. Beardslee** (BS 1998) is living in Tecumseh, MI.

**Garrett J. Dille** (PhD 2000, Roush) is Manager for Business Development at the Albany Molecular Research Corporation in New York.

**Brent A. Donovan** (PhD 1998, Sension) is developing Metered Dose Inhalers and other inhaled drug therapies in the Ana-



lytical Development Division of the Schering-Plough Research Institute in New Jersey.

**Aidan Chris Dysart** (BS 1999, Chemistry & Computer Science) is a Software Engineer for Arbor Networks in Ann Arbor.

**William A. Faber** (BS 1997; MS Wayne State Univ.) is an Instructor in Chemistry at the Grand Rapids Community College.

**Alfred J. Fleming** (BS 1999) is a research assistant in cancer research at Case Western Reserve University.

**Stanley A. Forfa** (BS 1997; MS 2000, Wayne State Univ.) will be leaving his position as Research Associate in the Physiology Dept. of the Univ. of Michigan and plans to enter Michigan State's Osteopathic Medicine program in the fall of 2001.

**Joseph B. Gardner** (PhD 1999, Marino) is a Project Supervisor for the National Starch and Chemical Co. in New Jersey. His wife, Maria Rubio, is listed in the year 2000 section.

**Leah M. (Meeuwenberg) Gardner** (MS 1998) has taken a job as a project engineer with Delphi Automotive. She lives in Sanford, MI.

**Margaret E. (Gillis) Alt** (BSC 1998) has married Jeffrey Alt and is coping with the demands of a young baby while dealing with the requirements of Medical School.

**Robert M. Gomez** (BS 1999) is a receiver in the Whole Food Market in Ann Arbor while completing the requirements for a BS degree in computer science.

**Sridhar Govindarajan** (PhD 1998, Goldstein) is a Bioinformation Scientist for Maxygen in California.

**Matthew A. Halanski** (BSC 1996) is completing his studies as a medical student at Wayne State Univ. and is planning a residency in Orthopaedic surgery. His wife, Amy, already holds a MD degree.

**Richard W. Hammond** (PhD 1997, Morris) is a research scientist with the CuraGen Corp. in New Haven, CT.

**Brent H. Hilbert** (MS 1997) works as a chemist for Cargill Nutraceuticals in Minnesota.

**Nicole B. Hlava** (BSC 1995, MD 2000) has the position of intern at the California Pacific Medical Center in Saratoga.

**James A. Holleman** (MS 2000) is a Senior Assistant Scientist with the Pfizer Research Laboratories in Ann Arbor.

**David P. Holub** (PhD 1995, Marino) has returned to the midwest as a Technical Sales Consultant for the Gilson Corp after four years in Seattle. He and his wife, Katharine E. Garrett (MS 1991), live in Cincinnati, OH, and have three children.

**Charles Frederick M. Huntley** (BSC 1995; PhD 2000, Cornell Univ.) has taken a position as Senior Scientist with CB Research & Development in Delaware.

**Nancy L. Jestel** (PhD 1998, Morris) is a chemist in analytical technology for the Plastics Division of the General Electric Co. in Albany, NY.

**Yiu C. Leung** (PhD 1993, New York Univ.; Post Doc. 1997, Morris) is a software engineer with Computer Associates in Brooklyn, NY.

**David J. Lieberman** (BS 1998; MAT, St. Louis Univ.) teaches chemistry in the Glenbrook South High School in Glenview, IL.

**Yan-Hui Liu** (PhD 1996, Lubman) is an Associate Principal Scientist at the Schering-Plough Research Institute in New Jersey.

**Raymond J. Malewitz** (BS 1999, Chemistry & English) is a chemistry teacher at the Awty International School in Houston, TX.

**Steven M. Malinak** (PhD 1997, Coucouvanis) is teaching at Washington & Jefferson College as an Assistant Professor.

**Heather Alexis (Geist) Martin** (BSC 1996) is a marketing manager in the personal care area for B.F. Goodrich Performance Materials in Ohio. She and **James M. Martin, Jr.**, (MS Univ. Mich. 1995 (Aero. Eng.)) were married in 1999.

**Jennifer L. Marti** (BS 1999) is now pursuing an MD degree at the New York University School of Medicine. For a year after graduation she taught general biology at St. Peter's Prep H.S. in Jersey City.

**Patrick K. McGinnis** (BS 1997) is a consultant for the Accenture Corp. in Minnesota.

**Elizabeth A. Mieczkowski** (BS 1999) is working as a systems developer in the Chemistry Department of the Ohio State University. She plans to enter medical school in a year or two.

**Deanna J. Mitchell** (BSC 1995; PhD 2000, Northwestern Univ.) is employed by Booz, Allen & Hamilton, consultants, in Chicago.

**Ramasubramanian Narayanan** (PhD 1998, Laine) is a Senior Research Chemist with PPG Industries, Inc., in Shelby, NC

**Suzanne M. (Argentine) Olds** (PhD 1995, Francis) has returned to the academic life and is Assistant Chair in the Biomedical Engineering Department of Northwestern University.

**James C. Pennington** (PhD 1998, Koreeda) is a lecturer and postdoctoral associate at Texas A&M University in College Station, TX.

**Timothy R. Peterson** (BS 1999) is living in Fort Wayne, IN. He plans to apply to Medical School for the fall of 2001.

**Stuart H. Pullen** (PhD 1998, Sension) is a senior research associate for Eisai, Inc., in North Carolina. He reports two children, a girl 4 and a boy 1.

**Jeffrey M. Raab** (BSC 1996) is engaged in new business development for Stoneage in Royal Oak, Mich. He is also pursuing a MBA degree and plans on getting married in September of 2001.

**Saira M. Rauf** (BS 1999) is a homemaker living in Plymouth, MI. She is expecting an addition to her family.

**Wendy M. Robertson** (BSC 1999) reports she married Derek Blakeney May 20, 2000. She works as an account executive for USA Scientific in Ann Arbor.

**Dell T. Rosa** (PhD 1998, Coucouvanis) is working for Lexmark International, Inc., in Lexington, KY.

**Todd R. Ryder** (MS 1996) has left Parke-Davis research and has entered the University of Rochester as a graduate student in Chemistry.

**Mark A. Schmidt** (BS 1997, MS 1999 (Public Health)) is an epidemiologist with the Michigan Dept. of Community Health in Lansing, MI.

**Michael R. Shortreed** (PhD 1996, Kopelman) completed a postdoctoral appointment at Iowa State University and now holds a similar appointment at the University of Wisconsin at Madison working with Lloyd Smith. He reports he and his wife are the proud parents of two children.

**Timothy L. Troyer** (MS 1999) has taken a position as Associate Research Scien-

tist with the Bristol-Myers Squibb Corp. in Connecticut.

**Yamin Wang** (PhD 1998, Koreeda) is a research scientist for the Pharmaceutical Division of the Bayer Corp. in Connecticut. She visited the Department last October on a recruiting trip.

**Jinhai Yang** (PhD 1998) has completed his postdoctoral appointment at Pennsylvania State University and has accepted a position as Senior Research Scientist with the Albany Molecular Research Corp. in Albany, NY.

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## 2000

**Neal B. Blatt** (PhD 2000, Glick) is continuing his training as a medical student at the Univ. of Michigan.

**Aaron E. Boyle** (BS 2000) has joined the Peace Corp. and will be teaching chemistry and biology in Kenya until December, 2002.

**Ryan Z. Brady** (BS 2000) is an organic chemist for the Eli Lilly Co. in Indianapolis.

**Angela G. Cassar** (BS 2000) plans to attend the Univ. of Michigan Dental School in the fall of 2001. She currently is a dental assistant for Midwestern Dental in Detroit.

**Shaohua Chen** (PhD 2000, Meyerhoff) is a senior research chemist with the Merck & Co. organization in New Jersey.

**Stephanie M. (Alt) Chervin** (PhD 2000, Koreeda) is a Research Associate in the Univ. of Michigan Medical School. She is doing research in the Howard Hughes Medical Institute with John Lowe on glycobiology.

**Delia J. Chien** (BS 2000) continues with her music but also is employed as a Investment Executive Assistant for First of Michigan in Ann Arbor.

**Ting-Lan Chiu** (PhD 1999, Goldstein) is a Postdoctoral Fellow at the Donald Danforth Plant Science Center in St. Louis.

**Aaron M. Conant** (BS 2000) is an associate with the Pharmacia Corp. in Kalamazoo, Mich.

**Megan D. Davis** (BS 2000) works for Pfizer, Inc., as a healthcare representative in Michigan.

**Xiangdong Fang** (PhD 2000, Ashe) is a postdoctoral scholar at the University of Chicago.

**Ann F. (Chopp) Fioritto** (BS 2000) was married in June of 2000 and together with her husband has now purchased their first home. She is an Assistant Scientist with the Pfizer Pharmaceutical Co.

**Laura M. Harley** (BS 2000) plans to attend the Yale University School of Public Health in the fall of 2001 but in the meantime is working for the Amy Biehl Foundation Trust.

**James A. Holleman** (MS 2000) is a Senior Assistant Scientist with the Pfizer Pharmaceutical Co. in Ann Arbor.

**Xiaoying Jin** (PhD 2000, Lubman) has taken a position as Staff Scientist with the Genzyme Corp. in Massachusetts.

**David M. Johnson** (PhD 2000, Rasmussen) is a Postdoctoral Fellow at the University of Texas in Austin.

**Nicholas A. Keppeler** (BS 2000) works as a business analyst for Simon-Kucher & Partners, a marketing consulting firm in Massachusetts.

**Laura Houry** (BS 2000) is a business analyst for Andersen Consulting in Illinois.

**Katrina L. Peariso** (PhD 2000, Penner-Hahn) is a Postdoctoral Research Assistant at the University of New Mexico in Albuquerque.

**Noel A. Powell** (Postdoc 2000, Roush) has taken a position as Senior Scientist

with Pfizer Central Research in Ann Arbor.

**Theresa M. Reineke** (PhD 2000, Yaghi) is a Postdoctoral Scholar at the California Institute of Technology.

**Maria B. Rubio** (PhD 2000, Marino) is a Postdoctoral Research Fellow at the Sloan-Kettering Institute in New York City. Her husband, Joseph B. Gardner (PhD 1999, Marino) works for National Starch Co. in New Jersey.

**Carolyn Seim** (BS 2000) has a position as territorial Manager for the Davol Corp. in their hernia mesh and irrigation pump sales.

**Aaron M. Smith** (PhD 2000, Meyerhoff) is a Postdoctoral Fellow with Roches Diagnostics Corp. in Indianapolis.

**Jennifer M. Stahl** (BS 2000) currently has a long term subbing position as a high school biology teacher in Connecticut.

**Jerilyn A. (Pezzuti) Timlin** (PhD 2000, Morris) is a Postdoctoral Scholar at the Sandia National Laboratory in Albuquerque, NM.

**Bryan J. Vanderlugt** (BS 2000) has joined the U.S. Navy and holds the rank of Ensign. He is currently stationed in San Diego.

**Shau-Chun Wang** (PhD 2000, Morris) remains in Ann Arbor as a Research Fellow for the Parke-Davis Pharmaceutical Research Laboratories.

**Laurie A. (Miller) Yoder** (PhD 2000, Barker) is staying in Ann Arbor for the present as a Postdoctoral Scholar with Prof. Sension.

**Xiao-Ying Yu** (PhD 2001, Barker) has accepted a position of Research Associate in Atmospheric Science Division of Brookhaven National Laboratories in Upton, NY.

## In Memoriam

We were sorry to learn of the deaths of the following alumni, alumnae and friends of the Department.

**Arthur G. Anderson** (PhD 1944, Bachmann) died quietly in his sleep on October 10, 2000 in Seattle, Washington. Dr. Anderson was Prof. Emeritus of Chemistry at the University of Washington and also had served that Department as Associate Chairman for a number of years. He had attended the Bachmann convocation in Ann Arbor in May of 2000 and had enjoyed reminiscing with former colleagues.

**Joy H. Bartell**, wife of Emeritus Professor **Lawrence S. Bartell**, died of a massive stroke on January 2, 2001. Mrs. Bartell was born in England but had lived in this country most of her life. She and Prof. Bartell had been married for nearly fifty years.

**Francis Binkley** (MS 1939) died on August 7, 1986. He was a Professor Emeritus of Biochemistry at Emory University.

**Herman D. Bode** (MS 1933) died December 31, 1998 in Ohio. No other details are available.

**Henry Brown** (PhD 1933, FE Bartell) died March 15, 2001 in Palo Alto, CA. After graduation, he took employment with the Udylite Corporation where he developed the method of producing a bright, shiny surface in chromium plating. This had a wide ranging impact from the automobile industry to kitchen appliance manufacture. During the war he developed a method of high speed brass plating for shell casings. His work resulted in the receipt of 92 US patents and 250 foreign ones, and he received the American Electroplating Society's Scientific Achievement Award in 1967. He was research director of the Udylite Corp. when he retired in 1972.

**David H. Campbell** (PhD 1953, Parry) died in Baton Rouge, LA, on January 14, 2000. Dr. Campbell had worked for the Ethyl Corporation as a research chemist for his entire professional career, moving from the Detroit area to Louisiana when the firm relocated. After retiring, he ran a translation service for a few years.

**Alfred F. Duttweiler** (BS 1950) died on January 15, 2000, in Princeton, NJ. No other details are available.

**Grace S. Dunn**, wife of Professor and former Chairman **Thomas M. Dunn** died of cancer July 25, 2000, in Savannah, Georgia. Before her marriage, she had been employed in the LSA Administrative Offices of the University.

**John T. Golden** (BSC 1953) died November 10, 2000 in Belleville, MI. He had been a technical manager for the Renite Co. of Columbus, OH.

**Oliver Johnson** (PhD 1937) passed away July 10, 2001. His research director was Kasimir Fajans.

**Arthur J. Libbey** (MS 1957) died June 16, 1999 in Manchester, Connecticut. At the time of death he was an Associate Professor of Chemistry at the Waterbury Branch of the University of Connecticut and was Co-Director of their Marine Environmental Laboratory.

**Clinton D. McLaughlin** (MS 1938) died November 11, 1995 in Paulsbo, WA. He had been a pharmacist most of his life.

**Leland Hadley Pence** (PhD 1937) passed away on October 30, 2001. Pence received his bachelor's degree in 1932 at the University of Florida. He studied under Bachmann at Michigan and was a regular attendee at recent annual Bachmann Lectures. His research career as an organic chemist included the preparation of pure carcinogenic hydrocarbons, estrogens, bile acids, steroids, cholesterol, fluorescent antibodies, tissue culture and monoclonal antibodies. He was author of "Phytohemagglutinin Preparations". Pence retired from Difco Labs Inc, Detroit.

**John C. Sullivan** (PhD 1960, Smith) died of a heart attack on December 18, 2000. He was in his 43rd. year as a professor at Eastern Michigan University where he had spent his entire professional life.

**Evelyn Taylor**, wife of Emeritus Professor **Robert C. Taylor**, passed away in August 2001, from complications suffered from hip replacement surgery. Evelyn and Bob were married in 1942. She was associated with many university and community activities. She was especially devoted to International Neighbors which provides support and activities for wives of foreign students, visitors and new employees in the Ann Arbor area.

**Andrew C. Watson** (PhD 1971, Smith) died October 19, 2000, in Ann Arbor. His BS degree was in Chemical Engineering in which field he spent a few years, but then decided that he preferred the academic life. He completed his PhD in organic chemistry while simultaneously teaching high school chemistry and physics. Later he taught at Schoolcraft College in Livonia from which he retired. He had served in the Korean area in the U.S. Army from 1945 to 1947.

**Norman L. Wendler** (PhD 1944, Bachmann) passed away on May 19, 2000 in Arlesheim, Switzerland, where he had retired in 1985 after a long career with Merck & Co. Wendler was coauthor on 125 scientific publications during his career and contributed to a number of important developments. His early work was on vitamin A before he switched to steroid chemistry where he was involved with the chemistry of cortisone. More recently, he pioneered the total synthesis of the antifungal agent griseofulvin and also carried on research on the prostaglandins and related compounds. (c.f. Obit, Chem. & Engin. News, Sept. 20, 2000, p.81)

**Stanley J. Winkelman** (BSC 1943) died August 19, 1999 in Bloomfield Hills, MI. He had been a consultant on management procedures. No other details are available.

## Milton Tamres

Emeritus Professor of Chemistry, Milton Tamres passed away on May 7, 2001 in Ann Arbor after a lengthy illness with Parkinson's disease. In spite of this affliction, he continued to attend departmental meetings, seminars and social affairs until his mobility became severely restricted. He was 79 years old.

Professor Tamres received his BA degree from Brooklyn College in 1943 and his Ph.D. from Northwestern in 1949. He served 5 years on the faculty at the University of Illinois where he developed a commendable reputation as a lecturer before he moved to the University of Michigan in 1953. Here he became widely respected for his excellence in teaching and research until his retirement in 1987.

His scholarly interests were focused on the spectroscopy and thermodynamic properties of charge transfer complexes. He had a reputation for careful quantitative studies of challenging systems and was highly valued as a critical voice in the field. Tamres was the chair of the first Gordon conference on charge transfer complexes in 1970. He was recognized as a Guggenheim fellow, a fellow of the American Association for the Advancement of Science and of the American Institute of Chemists. In addition, he authored more than 70 papers and review articles. He was also past president of Phi Lambda Upsilon, the national honorary society in chemistry.

His reputation as a teacher was legendary. His activities covered the gamut from curriculum reform and counseling, to outstanding lectures in the large introductory courses and advanced inorganic and physical chemistry. One of his greatest contributions was serving by example as a "teacher of teachers" as the department expanded with new faculty during the period 1955-70. Prof. Tamres was loved by legions of undergraduates who sensed his deep concern for them. They wrote numerous unsolicited letters praising him to the department office. He was the recipient of the Amoco Good Teaching Award in 1981. He shared his talent and passion for teaching broadly. He was a local consultant to the Ann Arbor and Ypsilanti school system, and served on numerous UM and American Chemical Society education committees. He was a participant for 7 years in the USAID-NSF summer science program in India. He was president of the Michigan College Chemistry Association from 1970-71 and had been deeply involved in the local section of the American Chemical Society serving as a councilor and chairman.

Throughout his career Prof. Tamres served with self-effacing modesty, a gentle humanity and a generous willingness to help others that endeared him to all who came into his realm. Upon his retirement, the department honored their esteemed colleague by establishment of the Milton Tamres Outstanding Teacher Award given annually to a graduate student teaching assistant. In 1995, a plaque was placed in his honor at the North University entrance to the chemistry building with the epithet "Milton Tamres, Master Teacher, Distinguished Scholar" Two flowering trees were also dedicated to his legacy. He leaves behind his wife Françoise, children Louise and Marc and a grandson.



## Robert C. Taylor

Robert Cooper Taylor, professor emeritus of chemistry, passed away on September 27, 2001, after a short illness. In recent years he served as departmental historian and maintained the departmental alumni records. He was in his office daily pursuing these activities until this summer when his wife Evelyn suffered complications from hip replacement surgery and passed away and he himself was diagnosed as having a lymphoma.

Taylor received a B.A. degree from Kalamazoo College in 1941. From 1942-45 he was employed as a research chemist on the Manhattan project. He received his Ph.D. from Brown University in 1947 and remained there as instructor from 1947-49. He joined the chemistry department at Michigan in 1949 where he served until his retirement in 1987. From 1967-86 he was associate chairman working with three successive chairs. He also was Director, Chemistry Division, Merit Information Center at the university from 1972-89.

His research on the structure and force fields in boron compounds was seminal in character. He was one of the earliest to understand how the computer was completely revolutionizing structural chemistry and vibrational spectroscopy and took advantage of this in his research, teaching and administrative duties. Dr. Taylor's career closely paralleled the growth of the computer in science and he was a source of expertise for several generations of chemistry students and faculty. He was a fellow of the American Association for the Advancement of Science and was appointed as assistant editor of the ACS journal "Inorganic Chemistry" when it was launched in the 1960's.

Taylor gave freely of his time to university and professional organizations. He was president of the Science Research Club, served on the executive committees of the computer center and IST, and was a long time counselor for the BS Chem/BS Chem Eng degree. In American Chemical Society affairs, he was the national councilor ('73-89, '95-97) from the Huron Valley chapter and served on the Chemical Abstract Committee ('77-87), the Copyright Committee ('76-86) and the Publications Committee ('75-77). He was a consultant to the Los Alamos National Laboratory from 1975-85 and president of the UM chapter of Sigma XI ('75-76).

During Taylor's years as associate chair of the department he regularly taught the physical chemistry lab course required of all majors. His office assigned all graduate student instructors and graders as well as processed fellowship and research assistant appointments. He came to know virtually every student in the department over this period, a claim unique in the department. Given his combined expertise in computers and interest in people, it is not surprising that he set up a computerized alumni database many years ago and was devoted to maintaining it during retirement. He became a departmental history expert with considerable insight back to the early 1900's. Each year he assisted in writing the departmental newsletter. With his passing the faculty and alumni of the department have lost a beloved friend and colleague. He leaves a brother, two sons and three grandchildren.



# Faculty

- Arthur J. Ashe III**, Professor. *Organometallic Chemistry*.
- Mark M. Banaszak Holl**, Associate Professor. *Synthetic and Mechanistic Solution, Surface, and Solid State Chemistry*.
- John R. Barker**, Professor, Chemistry and Atmospheric, Oceanic and Space Sciences. *Chemical Kinetics, Atmospheric Chemistry*.
- Larry W. Beck**, Assistant Professor. *Analytical NMR spectroscopy of Materials; Zeolite Catalysis*.
- Heather A. Carlson**, J. D. Searle Assistant Professor of Medicinal Chemistry and Chemistry, *Computational Chemistry, Drug Design, Theoretical Biophysics*
- Mary Anne Carroll**, Associate Professor, Chemistry and Atmospheric, Oceanic and Space Sciences. *Atmospheric Chemistry*.
- Zhan Chen**, Assistant Professor. *Biomaterial and Polymer Surface, Biocompatibility*.
- Brian P. Coppola**, Arthur F. Thurnau Associate Professor, Organic Chemistry. Coordinator of Undergraduate Organic Chemistry Curriculum. *Science Learning and Instructional Methods*.
- Gene H. Cordes**, Professor, Chemistry and Medicinal Chemistry. *Molecular Design; Enzymatic Reaction Mechanisms; Biochemistry*.
- Dimitri Coucouvanis**, Lawrence S. Bartell Professor. *Synthesis, Structures and Reactivities of Metal Clusters and Supramolecules*.
- James K. Coward**, Professor, Medicinal Chemistry and Chemistry. *Bioorganic Chemistry and Medicinal Chemistry*.
- M. David Curtis**, Professor. *Organometallic and Conducting Polymers*.
- B. J. Evans**, Professor. *Solid State Chemistry: Electronic and Magnetic Materials*.
- Carol A. Fierke**, Professor, *Biological Chemistry*.
- Anthony H. Francis**, Arthur F. Thurnau Professor. *Magnetic Resonance, Vibrational and Electronic Spectroscopy of Materials*.
- Eitan Geva**, Assistant Professor. *Theoretical and Computational Chemistry*.
- John L. Gland**, Professor, Chemistry, Chemical Engineering, and Applied Physics. *Solid State and Surface Chemistry, Physical Chemistry*.
- Gary D. Glick**, Werner Bachmann Professor. *Bioorganic Chemistry, Molecular Recognition*.
- Richard A. Goldstein**, Associate Professor and Research Scientist, Chemistry and Biophysics Research Division. *Computational Molecular Biophysics, Physical Chemistry*.
- Henry C. Griffin**, Professor. *Nuclear Chemistry: Gamma-Ray Spectroscopy of "Hot" and "Cold" Nuclei*.
- Marc Johnson**, Assistant Professor, *Inorganic Synthesis*
- Nancy K. Kerner**, Lecturer, Coordinator of General Chemistry Laboratory. *Chemical Education: Learning and Instructional Methods*.
- Raoul Kopelman**, Kasimir Fajans Professor. Chemistry, Applied Physics, and Physics. *Analytical/Physical/Biophysical Chemistry*.
- Masato Koreeda**, Professor, Chemistry and Medicinal Chemistry. *Synthesis of Natural Products. Small Molecule-DNA Interaction, Chemical Carcinogenesis, Glycobiology*.
- Robert L. Kuczkowski**, Professor. *Micro-wave Spectroscopy of Weakly Bonded Complexes*.
- Lawrence L. Lohr**, Professor. *Theoretical Studies of Molecular Structure and Reactivity*.
- David M. Lubman**, Professor. *Biological Mass Spectrometry, Spectroscopy and Instrumentation*.
- Anna K. Mapp**, Assistant Professor. *Organic Chemistry, Chemical Biology, New Synthetic Methods*.
- Joseph P. Marino**, Professor and Chair. Chemistry and Medicinal Chemistry. *New Synthetic Methods and Strategies for Natural Product Synthesis*.
- E. Neil G. Marsh**, Associate Professor. *Enzymes: Structure, Mechanism, and Specificity; Protein Engineering and Molecular Recognition*.
- Adam J. Matzger**, Assistant Professor. *Organic, Polymers/Organic Materials*.
- Mark E. Meyerhoff**, Professor. *Bioanalytical Chemistry, Electrochemical and Optical Sensors*.
- Michael D. Morris**, Professor. *Analytical Laser Spectroscopy and Imaging; Electrophoretic Separations*.
- Kathleen V. Nolte**, Lecturer. *Organic Biochemistry*.
- William H. Pearson**, Professor. *Synthetic Organic Chemistry*.
- Vincent L. Pecoraro**, Professor. *Synthetic Inorganic and Bioinorganic Chemistry*.
- James E. Penner-Hahn**, Professor. *Biophysical Chemistry and Inorganic Spectroscopy*.
- A. Ramamoorthy**, Assistant Professor and Research Scientist, Chemistry and Biophysics Research Division. *Structural Studies of Biological Molecules*.
- Paul G. Rasmussen**, Professor. *Polymer/Inorganic Chemistry*.
- William R. Roush**, Warner Lambert/Parke Davis Professor. *Organic Chemistry*.
- Richard D. Sacks**, Professor. *High Speed Analytical Separations*.
- Roseanne J. Sension**, Associate Professor. *Physical Chemistry, Ultrafast Laser Spectroscopy*.
- Robert R. Sharp**, Professor. *Multidimensional and Multiquantum NMR of Paramagnetic Systems*.
- Edwin Vedejs**, Moses Gomberg Professor. *Organic Chemistry*.
- Nils G. Walter**, Assistant Professor. *Chemical Biology*.
- Barbara J. Weathers**, Lecturer, and Lecturer in Comprehensive Studies Program.
- John R. Wiseman**, Professor. *Synthetic Organic Chemistry and Mechanisms of Chemical Reactions*.
- Omar Yaghi**, Professor. *Materials Chemistry*.
- Charles F. Yocum**, Professor, Biological Sciences and Chemistry. *Biological Chemistry of Photosynthesis*.
- Edward T. Zellers**, Associate Professor, Chemistry and Environmental and Industrial Health. *Environmental-Analytical Chemistry*.
- Erik R. P. Zuiderweg**, Professor, Chemistry and Biophysics. *NMR Studies of Biomacromolecular Conformation and Dynamics in Solution*.

Professors Emeriti and Emerita: **Lawrence S. Bartell, S. M. Blinder, Thomas M. Dunn, Seyhan N. Ege, Adon A. Gordus, Richard G. Lawton, Daniel T. Longone, Christer E. Nordman, Lawrence J. Oncley, Peter A. S. Smith, Leroy B. Townsend, Edgar F. Westrum, Jr.**

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