

# Chemistry and Biochemistry Department NEWSLETTER

August 1990

Number 15

## Ignacio Tinoco, 11th Distinguished Lecturer

by Margaret Merryfield

The Unocal Distinguished Visiting Lecturer for 1990 was Dr. Ignacio Tinoco, Professor of Chemistry at UC Berkeley. Professor Tinoco received his BS degree in Chemistry from the University of New Mexico and his PhD in Physical Chemistry from the University of Wisconsin, Madison. After spending two post-doctoral years at Yale, he moved to Berkeley in 1956, where he has had a distinguished career as a biophysical chemist. His current research interests include the use of techniques such as nuclear magnetic resonance and circular dichroism to study the structure and function of nucleic acids. He is also the author of the text used in CSULB's CHEM 377.

Dr. Tinoco visited the department on May 2, giving two lectures and meeting with faculty and students. His first lecture, titled, "The Human Genome Project: Method or Madness," attracted a large audience of students and faculty. Despite the provocative title, it quickly became clear that Tinoco's goal was to build a case for the human genome mapping project. He first described the goals of the project, which are ultimately to sequence the entire human

genome. The motivations cited for the project ranged from the practical goal of understanding genetic diseases to the traditional motivation of the scientist, "because it's there."



Dr. Ignacio Tinoco, Jr., Eleventh Distinguished Lecturer. In the background is seen a microscope which provides chiral contrast images. Only chiral objects are seen, because the image consists of the difference in intensity of transmitted left and right circularly polarized light.

In order even to contemplate a project of this magnitude, workers in the field have had to develop mapping and sequencing techniques of tremendous power. (A "map" is a description of the genes that are present on each chromosome, and their location relative to each other; the sequence is the actual order of individual bases in the DNA strand.) Tinoco likened current sequencing methodology to the use of a

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## Professor Mayfield Retires

After 34 years as a member of the department, Professor Darwin L. Mayfield retired at the end of the academic year. "I arrived in the summer of 1956 and was shocked to see such a meager campus," he recalls. "It seemed I had made a terrible mistake leaving a pleasant and challenging position at the tradition-steeped University of Idaho for no better reason than the lure of Southern California. I resolved to spend a respectable two years and then move on. But after a few months, I was caught up in the excitement of decisions, hirings, struggles, and frustrations involved in building a department and a university. My regrets had been short lived."

Dr. Mayfield's degrees include both a BS and AB from Bowling Green State University in Ohio, the MS from the University of Chicago, and a PhD in organic chemistry from the University of Wisconsin. "I hardly had time to untie the ribbons from my bachelor's diplomas when I found myself plunged, not too voluntarily, into intensive research projects during the entire duration of World War II. I worked on

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Dr. Darwin L. Mayfield.

### *Chairman's Report*

**A**s you can judge from the contents of this *Newsletter*, the 1989-90 Academic Year has been eventful in many ways. Two exhaustive reviews of the department were conducted. The first was an external review by Dr. Bruce Erickson of the University of North Carolina, Chapel Hill, who was selected by the University for his qualifications to evaluate our department. Such reviews are mandated every five years for each department on campus. The visit was preceded by an extensive self study which was made available to Dr. Erickson. A summary of Dr. Erickson's excellent report appears elsewhere in this edition of the *Newsletter*.

The second was a review of the BS Chemistry curriculum by the American Chemical Society. As you may know, our BS Degree has been accredited by the American Chemical Society since 1965. The department submits annual reports on graduates, faculty qualifications and curriculum; but every five years an in-depth report is required. The results of this review, which is sent to the Committee on Professional Training, have not yet been made available to us. I should mention that the department is now in the process of seeking ACS accreditation for the new BS Degree in Biochemistry.

I would like to summarize other events, activities, and statistics not covered elsewhere in the *Newsletter*.

**1989-90 Graduating Class.** Sixty students received BA, BS, and MS degrees in Chemistry and Biochemistry at the June 1, 1990, Commencement. Of that number there were 19 BS Degrees in Chemistry, 19 BS Degrees in Biochemistry, 12 BA Degrees in Chemistry, 5 MS Chemistry and 5 MS Biochemistry degrees. Once again our department ranks among the most productive in the nation in terms of number of degrees granted.

**Plans of Graduates.** Almost half of the graduating class (29) have been accepted for post-graduate work; 14 into PhD programs in Chemistry or Biochemistry, 7 to medical schools, 5 to MS programs, and one each to dental, pharmacy, and optometry schools.

**Enrollments.** Although overall enrollments in Chemistry and Biochemistry are still declining slightly, the total number of majors continues to rise somewhat, and at present constitutes a little over 250 students.

**Sabbatical Leaves.** Three faculty will be on sabbatical leave during the 1990-91 Academic Year. **Dr. Mark Anjo** will spend a semester in residence involved in his research program. **Dr. Roger Acey** will divide his time between his laboratory at CSULB and Baxter Healthcare Laboratories in Santa Ana during the fall semester, and in the spring he will be at Worcester Polytechnic Institute in Massachusetts, working in association with Professor Bagshaw. **Dr. Nail Senozan** will spend a year on a Fulbright Fellowship at Ege University in Izmir, Turkey.

**Visiting Faculty** **Dr. Thomas Feeley** from Cork Regional Technical College in Ireland will spend his sabbatical year in our department. Dr. Feeley is well known for interpreting chemistry to non-science majors and will assist us in CHEM 100, our principal general education course in chemistry. **Dr. James Stewart**, Professor of Chemistry from Cypress College, will join our faculty in the fall semester during his sabbatical year. He will participate in teaching CHEM 200, a course for nursing, home economics, and physical therapy students. Dr. Stewart will collaborate with Dr. Acey in mutual research interests. During the fall semester **Dr. Charles Gorenstein**, Senior Scientist at the Long Beach Veterans Administration Hospital, will assist Dr. Margaret Merryfield and **Dr. Alan Smith**, Baxter Healthcare Laboratories, in teaching CHEM 542, Special Topics in Biochemistry. The topic will be Neurobiochemistry.

**Department Retreat.** Members of the department spent an entire day on a retreat last May at the Airport Marriott Hotel in Long Beach. This is the first time the faculty have held an off-campus retreat. The retreat was organized by Dr. Ken Nakayama and the expenses borne by the Chemistry and Biochemistry Advisory Council. We hope that this will become a regular annual event, because much planning for the future evolved from our intense and uninterrupted discussions.

**Renovation of Facilities.** For about the last five years I have been reporting the imminent renovation of our facilities. However, each time plans went to bid, bids were higher than funds provided by the State. Much of the original appropriation has now been spent for architect's fees in scaling down previous plans. Renovation plans are on hold at present. New plans, if any, will be reported in the 1991 *Newsletter*!

**Undergraduate Research Conference.** The 1991 Undergraduate Research Conference, sponsored by the Southern California Section of the American Chemical Society, will be held at CSULB on April 20. Dr. Stuart Berryhill of our department will be the Conference Director. This conference was begun at CSULB, and it is fitting that its tenth anniversary will be held on our campus. Undergraduates from all ACS sections in Southern California are expected to participate.

Finally, I wish to thank all alumni who have provided information about themselves for this *Newsletter*. Our alumni have an impressive record of achievement! To those of who who have made the *Newsletter* and other projects possible by your generous contributions, an additional "thank you." The faculty and I look forward to hearing from more of you during the coming year. Best wishes to you all!

*Ken Marsi*

**Tinoco: From Page 1**

chemical scissors capable of cutting a DNA strand wherever a particular base (A, G, T, or C) appears. A radioactive "tag" is attached to one end of a DNA molecule. The chemical cleavage is carried out under conditions where the reaction only proceeds a fraction of the way (1-2%) toward completion. Thus, one obtains a collection of fragments of DNA of different lengths, tagged at one end, that can be separated by electrophoresis. Since molecular weight differences equivalent to a single base can be detected, a sequence can easily be obtained by running one reaction for each base and comparing the fragments generated. Similar ideas but different tools will be used to map chromosomes, Tinoco observed. Here, the scissors are "restriction enzymes," enzymes that cut DNA whenever particular sequences appear. These can be used to convert a chromosome into smaller pieces that can be ordered and eventually sequenced.

The human genome project has been criticized as wasteful of money and scientifically unjustified, since most (about 96%) of our DNA does not code for protein. Tinoco argued strongly for the value of basic research, where the benefits may be less obvious but further reaching than those of clinical projects. He further pointed out that non-coding DNA is not "garbage," as some have said, but "junk": "garbage is what you throw out, junk is what you keep." The fact that so much non-coding material has been retained in the genome suggests that it will turn out to have important functions.

Tinoco concluded by addressing ethical issues associated with our increasing knowledge of the genetic basis of disease, personality, and behavior. These issues are real and deserve careful thought and action, but should not stand as a barrier to the acquisition of knowledge, he maintained.

Later in the day, Dr. Tinoco presented a seminar on his current research interests. This presentation, titled "RNA Folding: Hairpins, Bulges, Bubbles, and Pseudoknots," was highlighted, as was his earlier talk, by creative visual aids. He enlisted the help of his audience to begin the seminar with a lesson in how messenger RNA is processed; his demonstration involved a long paper banner, the "RNA," that was trimmed and spliced (with scissors) to produce the final message. The point of this title was that, although most of us tend to think of RNA structure in linear terms, as a sequence of ribonucleotides, the secondary and tertiary structure of RNA are also essential to its function, just as is true for protein.

Tinoco defined the hairpins, bulges, bubbles, and pseudoknots of the title as some of the structural elements that have been observed in RNAs, and indicated that these features almost certainly are relevant to function, such as the regulation of rates of protein synthesis. Our linear picture of RNA includes an image of RNA as single stranded; however, structural studies have made it clear that significant portions of RNA are found in double-stranded pieces.

At the end of the day, a reception and dinner were held in Dr. Tinoco's honor. CSULB faculty and students were joined by members of the Advisory Council, as well as guests from neighboring schools. ♦

**Linus Pauling Visits CSULB**

Dr. Linus Pauling, Nobel Laureate.

by Darwin Mayfield

Controversial and ebullient as ever, Professor Linus Pauling enlightened, inspired and charmed students and faculty in large groups and small during a long day on campus in late April. Quite possibly the most distinguished living American scientist, Professor Pauling at age 89 kept a schedule that would have challenged the endurance of persons much younger. He was the honored guest at the 15th annual Nobel Laureate Lecture Series

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**Weekly Seminar Series**

The Department has a weekly seminar program throughout the academic year. If you would like to be placed on the seminar mailing list, please call the department office at (213)985-4941. Seminars are held on Wednesdays at 4:00 PM in Science Lecture Hall, Room 50. The Fall series begins on September 12. Call for directions and parking.

**Nearly Half of Chem/Biochem Graduates Earn Advanced Degrees**

According to our records, since 1958, when the first degrees in Chemistry were granted, 1032 students have received either bachelor's (819) or master's degrees (213). From the information which we have, of that number 509 (49.3%) have received or are studying for advanced degrees, either master's or doctorates. This would be a minimum number since, in some cases, we have lost track of alumni during the years following graduation, and a few students received both bachelor's and master's degrees from our department. The number of students possessing the indicated graduate degree is given:

PhD Degree	207
MS Degree	151
MD Degree	76
DDS	36
PharmD	25
DC (Chiropractic)	5
JD (Law)	4
OD (Optometry)	3
DVM (Veterinary Medicine)	2

It is also noteworthy that at least 50 of our graduates are college and university professors and 14 are high school science teachers.

**Pauling: From Page 3**

sponsored by the Natural Sciences Student Association (which includes representation from the Student Affiliates of the American Chemical Society), the CSULB Associated Students, and TRW. The presentation was also a feature of the regular Wednesday seminar series of the Department of Chemistry and Biochemistry. Our distinguished guest is notable in being a two-time winner of the Nobel Prize (Chemistry in 1954 and Peace in 1962).

Professor Pauling, at various gatherings during the day, discussed subjects ranging from his classic work in the 1930's on the nature of the polar covalent bond and the theory of resonance to his present interest in the optimum dosage of Vitamins C and E. He was critical of the current crop of textbooks for General Chemistry. "Modern texts are much too heavy with many times the amount of material you can expect a student to learn," he said to the delight of an inquiring student.

He talked of his efforts in the 1950's to elucidate the three-dimensional structure of polypeptides and of his research during the 1980's with Vitamin C in biological redox systems and as a free radical scavenger. He was eager to recall his lectures and writings which advocated a ban on nuclear testing in the atmosphere. He offered advice to his generally young audiences for a long and happy life--"find someone you can converse with on a variety of subjects, marry young, stay married, find a job that will pay you to do what interests you and then do it well."

Hundreds of disappointed persons were turned away from Professor Pauling's noon lecture which drew an overflow crowd to the University Theatre. It was here that he presented evidence and arguments for increasing Vitamin C and E intake by the human species. He has concluded that large doses of Vitamin C can not only deter the common cold but are effective in reducing cholesterol levels and in strengthening the immune system against cancer. He continues to work in the laboratories of Stanford's Pauling Institute of Science and Medicine, which he founded upon retiring after more than three decades with the Division of Chemistry and Chemical Engineering

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classified government projects in University of Chicago laboratories. I was only a block away during the first sustained fission experiment with uranium-235 on December 2, 1942. The projects I worked on included efforts toward syntheses of volatile uranium compounds and of beta-chloro and fluoro phosphate esters. I've been fairly relaxed when working with normal hazardous chemicals ever since. One of the fringe benefits of this wartime research was association with several project leaders who went on to win Nobel Prizes."

During his career in teaching and research, Dr. Mayfield spent three years abroad--as a Fulbright Lecturer at Kasetsart University in Bangkok, later on a second Fulbright at Ain Shams University in Cairo, and as a National Institutes of Health Research Fellow at the Centre National de la Recherche Scientifique near Paris. At Long Beach his research interests have included synthesis of sulfur analogues of silicones and investigations into the chemical basis for the induction of flowering in selected photo-periodic plants. He is proud of the fact that the second external research grant awarded through the newly chartered University Foundation was in his name (the first went to the late Professor Robert Henderson, also of the Chemistry Department). In recent years his interest has turned to delving at the Huntington Library into original literature and first editions important in the history of chemistry.

In the mid-sixties Dr. Mayfield served as Department Chair. Among his fond memories of this period was the certification of the BS Degree curriculum by the American Chemical Society. In 1967 he joined the central administration of the University as Director of Research, a position he held for 14 years before returning to the Department in 1981 on a full-time basis.

"Best of all," he contends, "I have had the privilege of teaching, of working with students, the best job in the world. I have been exceedingly fortunate, as well, to have been associated with such a fine academic department and to work alongside congenial colleagues who make up the outstanding faculty. What a different place it is from that which I derided at first sight 34 years ago!"

Dr. Mayfield was the recipient at this year's Commencement of an Outstanding Professor Award, given by the Natural Sciences Student Council. This is the first year such an honor was accorded to a faculty member; it is intended to be a perpetual award, to be given each year at Commencement.

Dr. Mayfield plans to maintain his involvement with our department and will include part-time teaching among his other "retirement" activities. ♦

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at Caltech.

Professor Pauling was born in Portland, Oregon, in 1901. He developed his interest in chemistry at an early age, earned his bachelor's degree at Oregon State University (then Oregon Agricultural College), and went on to greatness.

Particularly appropriate in this time of remarkable change among nations is a paragraph he wrote for *No More War!*, published in 1958. "Science is the search for truth--it is not a game in which one tries to beat his opponent, to do harm to others. We need to have the spirit of science in international affairs, to make the conduct of international affairs the effort to find the right solution, the just solution of international problems, not the effort by each nation to get the better of the other nation." ♦

*“find someone you  
can converse with on a  
variety of subjects,  
marry young,  
stay married,  
find a job that will  
pay you to do what  
interests you  
and then do it well.”*

## Departmental Five-Year Review

**T**he University mandates recurring five-year reviews for every department on campus. The process involves a year of self study by the department, followed by a visit from an external reviewer from an outstanding department in the discipline. Our self study took place during the 1988-89 academic year and included responses to questionnaires sent to all alumni who retrospectively evaluated their experiences in our department.

Our external reviewer was Dr. Bruce W. Erickson, Professor of Chemistry, University of North Carolina at Chapel Hill. Dr. Erickson is a bio-organic chemist with a distinguished research and teaching career. His research is currently in the area of peptide synthesis, an interest acquired during his postdoctoral association with Nobel Laureate, Dr. R. Bruce Merrifield of Rockefeller University. Dr. Erickson received his BS Degree in Chemistry from Ohio State University, where he was elected to Phi Beta Kappa, and his MA and PhD Degrees from Harvard University.

Dr. Erickson spent two full days on campus, May 14-15, meeting with faculty, staff, students, administrators, alumni and Advisory Council members. His recommendations, drawn from interviews and our written self study, are summarized below.

**1. Curriculum.** At least one semester of biochemistry should be required for the BS Degree in Chemistry. The current requirement for the BS Degree in Biochemistry should be slightly modified so that it will meet the new certification requirements for a BS in Chemistry with a concentration in Biochemistry. Sparsely enrolled upper division courses should be offered once every two years.

**2. Hoods and Ventilation.** Existing hoods should be modified as needed to provide adequate and safe ventilation in instructional and research laboratories and issue rooms. An additional fume hood should be installed in the waste disposal room. When department space is renovated or replaced, modern fume hoods and ventilation systems should be installed.

**3. Instrumentation.** A combination of School, University, and external funds should be found to upgrade scientific instrumentation, computers and computer networking, and to include restoration of the non-functional mass spectrometer. A 200 MHz nuclear magnetic resonance spectrometer, equipped for fourier-transform, heteronuclear, and two-dimensional methods of data collection and analysis, should be purchased. Cost: approximately \$200,000.

**4. Staff Operations.** A permanent instrument technician should be hired to maintain the present mass spectrometer and the anticipated NMR and to train faculty and qualified students to operate them. Decrease response time for requests for material fabrication and repair from School shops. Acquire a half-time glassblower (at present we have no glassblower). Provide a lounge for School staff. A high-speed collating plain-paper copier with enlarging and reducing capabilities should be acquired for the department office.

**5. Faculty.** Consideration should be given to hiring faculty whose interests span two or more areas of chemistry.

**6. Conclusion.** "The Department of Chemistry and Biochemistry...has done an excellent job of providing quality education leading to a substantial number of bachelor's and master's degrees with financially minimal resources. Without significant additional financial support, however, the department will not be able to maintain the quality of its teaching."

## Gifts Benefit

### L. A. Public Library



Periodicals shelves following the April 29, 1986, Los Angeles Public Library fire.

**L**os Angeles Public Library's Central Library, victim of two arson fires, benefitted from gifts of 114 volumes of journals by our department (*Analytical Chemistry, Biochemistry, Chemical Reviews, Industrial and Engineering Chemistry, Inorganic Chemistry, Journal of the American Chemical Society*). Most volumes were bound collections of several issues each. The Public Library's Science, Technology, and Patents Department was severely damaged by the April 29, 1986, fire, resulting in the loss of approximately one-third of its collection to fire and water destruction. Losses for the Library as a whole have been estimated at about twenty million dollars.

The department's donation was from a collection given over the years by retiring faculty and alumni. It was hoped someday to have a departmental library, but the policy of the University is not to support branch libraries. This, coupled with the fact that the department does not foresee availability of space for this purpose, prompted the faculty to investigate institutions where the collection would be useful. Negotiations are now underway to offer the remainder of the collection to a Turkish university.

The department's collection is duplicated in its entirety by the nearby Main Library on campus, thus the loss of these journals will not impede scholarly work in our department. ❖

## Faculty News



• **Roger Acey** reports, "We are interested in the biochemistry of developing brine shrimp, commonly referred to as 'sea monkeys,' the biochemistry of citrus *tristeza* virus (CTV), a viral pathogen of citrus, and the biodegradation of petroleum hydrocarbons. We are currently being supported by Chevron Oil Field Research Corp., the Citrus Research Board, the California Tristeza Eradication Agency, and MBRS.

"Denis Guttridge completed all the requirements for his MS degree. Denis and Stacie Bailey, an undergraduate student, will be entering PhD Programs at UC Irvine in the fall. Mike Bundy is currently writing his MS thesis, and Martha Lopez and Jim Lozano are completing their research projects for the MS degree. Several new students have joined the laboratory this year. Steve Parker, Holly Chubb, and Diane Deringer have been working on the Chevron Project. Lewis Book and Youn Noh, both graduating high school students, and John Oldenburg, a former graduate student in the department, have been working during the summer on the Tristeza Project. Using an assay developed in this laboratory, they have been screening trees for the presence of the *tristeza* virus. The ultimate goal is to have the State of California adopt our assay as the reference method for verification of CTV in plants.

"Dr. Jim Stewart from Cerritos College will be spending a sabbatical leave in my laboratory next semester. Continuing members of my group include Lori Ishizawa, Jim Thurmond, Ginny Ofstein, and Mike Mustillo."

• **D. Mark Anjo** has received a grant from the National Institutes of Health for \$71,800, which will support his work on carbon electrodes for three years. "Humberto Gutierrez, an undergraduate research student in my group, was a contributor to a presentation at the Pacific Conference in the fall of 1989; his work concerned the study of active electrodes by photoacoustic spectroscopy. Charlene Reeder and Karen

Watson, also undergraduates, contributed to a paper on chemical modification of electrodes, presented at the Pacific Conference."

Other accomplishments by Dr. Anjo's students include a presentation of Coleman Smith's work in photoacoustics at the International Society of Micro and Minicomputers; Eloisa Gonzales', Jay Ojima's, and Shelton Brown's talks at the campus student research conference. Eloisa was chosen to present her work at the statewide conference in Sacramento. Dr. Anjo was granted tenure and promoted to Associate Professor this year.

• **Roger D. Bauer** reports another successful year in directing the Minority Access to Research Careers (MARC) grant. Activities in this program were expanded to include lower division students in a "pre-MARC" program. During the past year he was active in developing the Chautauqua Program and teleconferences on academic safety through the Chancellor's Office.

• **Stuart Berryhill** reports that, "Guy Breitenbucher (MS 1990) and I had a publication in *Tetrahedron Letters* concerning a transition metal-mediated allylic coupling reaction. Guy started the PhD program at UC Riverside in the fall of 1989. Said Zamani-Kord is completing his master's thesis and will enter the PhD program at UC Davis in the fall of 1990. Ross Herman and Craig Mann have been pursuing undergraduate research on diastereo selectivity in the complexation of arenes with chromium. Ross is entering the master's program in our department this fall. Craig gave a talk on his research at the annual Southern California ACS Undergraduate Research Conference, held this spring at CSU Los Angeles."

Dr. Berryhill was promoted from Associate to Full Professor this year.

• **Annie Bianchino** will begin her third year as a full-time Lecturer in Biochemistry. "This past year I've had the opportunity to teach both semesters of the year course in biochemistry. Teaching upper division biochemistry lecture was stimulating and rewarding. I now look forward to the graduate colloquium which I will host in the fall. At

the other end of the spectrum, I am also pleased to teach and coordinate CHEM 100 (for non-majors) once again. I have always been interested in science education and ways to keep both majors and non-majors interested in chemistry."

• **Jeff Cohlberg** states, "As Balwant Khatra in the Anatomy and Physiology Department says, 'I've become a kinase man.' My lab has focused recently on the phosphorylation of neurofilament proteins--mapping the location of sites phosphorylated by various protein kinases and examining the effects of phosphorylation state on the assembly properties of the proteins, using electron microscopy (with the new JEOL 1200-EXII), sedimentation, cross-linking, circular dichroism, and (we hope) differential scanning calorimetry. I presented two posters at this summer's Gordon Research Conference on Intermediate Filaments, and some papers are in the works. The group includes grad students, Roy Avalos, Tom Wroblewski, Rong Guan, and Gary Fukumoto; recent graduate, Miki Aurang; and undergraduates, Melissa Primus and Chip Stevens."

• **James L. Jensen** continues as Project Director of the CSULB MBRS Program, funded by NIH through 1993. This research-based program funds the work of 25 students, working in the laboratories of 14 faculty in the departments of Anatomy and Physiology, Biology, Chemistry and Biochemistry, Microbiology, and Psychology. "Three of my research students will enter doctoral programs in the fall of 1990: Rick Pagliery (Penn State), Gary Martinez (UC Santa Cruz), and Art Dixon (UC Santa Barbara). This year Dave Maynard's work was published in *J. Org. Chem.*, and some of Greg Shaw's and Richard Kanner's in *Int. J. Chem. Kin.* The main focus of my teaching during 1990-91 will be offering two new interdisciplinary courses, in addition to an Internship course."

• **Gene Kalbus** presented two papers at National Meetings of the ACS: "Potentiometric Determination of Dichromate and Chromate Mixtures"

## Faculty News

(198th Meeting, Miami, 1989) and "Atomic Absorption Analyses of Solubility Products" (200th Meeting, Washington, DC, 1990). He and Dr. Van Lieu had a paper, "Coulometric Determination of Iodine Numbers of Fats and Oils," accepted for publication in *J. Chem. Educ.*

• **Van T. Lieu** had a total of eleven undergraduates and one graduate student working on various projects. "I have coauthored a paper entitled, 'Determination of Extractable Organic Halides in Soils and Oily Waste by Pyrolysis/Microcoulometric Titration,' in *Symposium on Waste Testing and Quality Assurance: Vol. 2, ASTM STP 1062*, David Friedman, editor."

• **Marco Lopez** reports, "Mark Tanji, an undergraduate, presented some of his work at the 199th Meeting of the ACS. His paper was entitled, 'Guanidinium Porphyrin Synthesis and Properties.' A second undergraduate, Hyun Ahn, will be leaving my research group to start Pharmacy School at UC San Francisco this fall."

• **Ken Marsi** was re-elected department chair for an additional three-year term. He continues with editorial work and as a curriculum consultant.

• **Steve McDowell** will join the faculty of the South Dakota School of Mines and Technology, Rapid City. Dr. McDowell will be in charge of the Advanced Inorganic Chemistry Laboratory and will also be the coordinator of the year course in General Chemistry.

• **Marjorie Merryfield** states, "The personal high point of the year for me was the birth of my daughter, Laura Elizabeth, in January. She weighed in at 3890 g. Inspired by something, probably temporary insanity, I decided to teach during the spring semester, thereby demonstrating that higher level thought is possible even when one is severely deprived of REM sleep."

"My students and I traveled to Houston in October for the national MBRS symposium, where undergraduates, Jose Sanchez and Judith Hicks, presented a poster. Another of the MBRS students, Martin Rocha, placed 2nd in the Physical Sciences Division

of the CSULB student research competition. I had papers appear in the spring in the *Annals of the New York Academy of Sciences* (with Benny Dickens) and in *Endocrinology*. The lab's focus continues to be on the regulation of protein phosphorylation. Jose Sanchez, Ray Augustine, and Anupma Seth are all beginning their thesis work, while Dana Gilchrist will be finishing up her thesis this fall, and moving on to Notre Dame. Two former students are also beginning PhD programs in the fall, Joyce Setsuda at UC Riverside and Dianne Meacher at UC Irvine."

Dr. Merryfield was granted tenure and promoted to Associate Professor this year.

• **Ken Nakayama** reports, "It was a tremendous learning experience for me to teach the special topics course in synthetic methods in organic chemistry this year. The class was small and the graduate students really kept me on my toes with much lively discussion and questions. A paper describing the synthesis and application of a new chiral auxiliary prepared from *L*-tartrate has been accepted by *Tetrahedron*. Hossein Razavi, a graduate student, is continuing this work. Phic Lim, a recipient of the 1990 SAACS undergraduate summer research award, is also working with me on some chiral phosphate chemistry. Phic presented a part of his work at the Undergraduate Research Conference held at CSULA in May, 1990."

• **Henry Po** states, "Rosa Mahmud and Za Shariff return to Malaysia after receiving their MS Degrees in Chemistry. David Anvar continues on to UC Berkeley in the fall, and Ming Fang Yuan and Gary Beck are giving the finishing touches to their research. Jeff Masse graduated with honors in BS Chemistry and plans to enter medical school in 1991. Shu-Chin Shen will stay on for her master's degree after completion of her BS in Chemistry in the fall. William Poon hopes to start his research in kinetics during the fall of 1990."

"This summer we welcome Alice Lee, a freshman from Yale University, who joined our group to gain some

summer research experience.

"I am planning to go to England to present a paper at the Reaction Mechanisms Conference at the University of Kent in Canterbury."

• **Kimberly Schugart** has concluded her first year as a tenure-track faculty member. "My research group's focus is the chemistry of the troposphere, the portion of our atmosphere that extends seven to ten miles from the earth's surface. This past year two graduate students, Jim Noblet and Melanie Concepcion, began working with me and are investigating the mechanisms by which SO<sub>2</sub> is converted to bisulfate ion in the atmosphere, resulting in the production of acidic rains and fogs. Jim is studying the process as it is thought to occur in cloud droplets in the presence of hydrogen peroxide. Melanie's work concerns the catalytic production of bisulfate by transition metal complexes present in the atmosphere."

In addition, Dr. Schugart is involved in joint research projects with Dr. Po and Dr. Berryhill, providing theoretical calculations on compounds in which they are interested. Undergraduates, Joyce Harpt and Jim Peterson, are participating in this work.

• **Nail Senozan**, with his wife, Diane, and their daughter, Erin, will be spending the 1990-91 academic year at Ege (Aegean) University in Izmir, Turkey, as a Fulbright Senior Lecturer.

• **Les Wynston** continues to be involved with the National Association of Advisors for the Health Professions, serving as National Secretary for 1988-90 as well as a member of the Board of the Western Association of Advisors for the Health Professions. He also leads study tours to Europe, going to France and Germany during both the summers of 1989 and 1990. His on-campus wine classes, taught in the Home Economics Department, are now in their 17th year. Dr. Wynston is the coordinator of CHEM 300, a biochemistry course for nursing, home economics, and physical therapy students.



## Staff News



**New Members of the Chemistry/Biochemistry Staff.** Left to right: Katrina Brinkman, Chemistry Office Student Assistant; John W. Tomaszewski, Stockroom Equipment Technician; Judy Ferraro, Secretary.

**Katrina Brinkman** has worked for the department office three years this August as our student assistant. She also is a full-time student studying Interior Design in the Home Economics Department, intending to finish her degree the spring of 1992. She has been using her design and organizational skills in the department office. Her vacation this summer was spent in Palo Alto, visiting her sister, **Liz** (BS, MS Chemistry CSULB), a chemistry graduate student at Stanford.

**Judy Ferraro**, Secretary, joined the staff in October, 1989. Judy, formerly from Boston, MA, was previously with the Department of Engineering and Industrial Technology during the period 1986-89. She has two sons, Michael and Patrick Donahue, who live in Boston.

**Joyce Kunishima**, Director of Laboratories, has a daughter, Cheryl, who is now 4 years old and currently taking swimming lessons this summer. "We've been busy this spring having our kitchen remodeled. It was very disruptive, but the end result was well worth it."

**Bob Mattice**, Director of the Stockroom, started his career as an AYSO soccer coach this year. His six- and seven-year olds had an outstanding 1 and 11 record! Bob is continuing his education in the School of Business Administration. Expected year of graduation will probably coincide with his retirement year!

**Fran McLuen**, Secretary, celebrated her youngest son, Scott's, gradu-

ation from CSULB this spring. "I also became a desert rat this spring when my husband, Chuck, and I completed a house in the desert area of Twenty-nine Palms on 5 acres of land that Chuck had homesteaded in 1955. In May, I received my 15 year pin from President McCray."

**Anne Nguyen**, Instructional Support Assistant. "My daughter, Clara, just turned 11 and my son, Walter, is 9 years old. This summer is their third year in Karate! The family has just returned from a wonderful ten-day vacation in Hawaii this summer."

**Jeannette Santage**, Department Secretary. "This is my second year serving as president of our homeowner's association in Telluride, Colorado. A bigger task than ever envisioned, but a great experience. We're planning to be in Telluride for the jazz festival this summer and will be housing one of the performers, a German guitarist. I recently was elected to the Board of Directors of Cedar House. Cedar House is a center in Long Beach for the treatment and prevention of child abuse."

**Bob Soukup**, Electronics Technician, and his family travelled to Walla Walla, Washington, this spring to visit relatives and see part of the Pacific Northwest. This was the first real vacation they have taken since the birth of their daughter, Jennifer, in 1989. Jennifer is growing rapidly and at age 1 1/2 enjoys visiting the Chemistry Department to explore the hall lockers and socialize with the department staff at the Friday morning coffee hours.

**John Tomaszewski**, Instructional Support Technician, will be completing his BS Degree in Biochemistry during the coming year. He is presently searching for graduate schools with PhD programs in Pharmacognosy or Natural Products Chemistry as well as studying for the GRE.

**Chinh Tran**, Instructional Support Technician, is in her third year of service in the Chemistry Stockroom. "My first son, Kevin Nguyen, is 19-months old now, and he is learning to speak both English and Vietnamese. I plan to take classes next semester in order to keep myself busy!" ❖

## Former Faculty: Where Are They Now?

**Dr. Peggy Kline**, Lecturer 1984-88, is Assistant Professor of Chemistry at Santa Monica College and teaches courses in General, Organic, and Preparatory Chemistry.

**Dr. Louis E. Perlgut**, Emeritus Professor; Tenure-track Faculty 1965-82. A large number of faculty and staff helped Dr. Perlgut celebrate his 75th birthday early in May. He was presented with a plaque honoring him for his long and dedicated service to the department. His former students will be pleased to know that Dr. Perlgut continues to teach on a part-time basis and is scheduled to lecture and supervise a laboratory section in CHEM 449, Nutritional Biochemistry, in the fall of 1990.

**Dr. Gwendolyn Raine**, Lecturer 1987-88; Tenure-track Faculty 1988-89. As reported in last year's *Newsletter*, Dr. Raine resigned her position to join her husband, Dr. Alan Schusterman, in Oregon where he accepted a position at Reed College in Portland. During the past year Dr. Raine was a full-time lecturer at Portland State University.

*Continued on Page 9*



## Former Faculty: from Page 8

**Dr. Grant Willson, Lecturer 1973-74.** Dr. Willson is an IBM Fellow and Manager of the Polymer Science and Technology Division, a group of 95 persons, at the IBM Almaden Research Center in San Jose, CA. He reports that he recently returned from a one-year sabbatical leave at Max-Planck Institut für Polymerforschung in Mainz, Germany, under an Alexander von Humboldt Award to Senior American Scientists. ❖

## Student Affiliates of the American Chemical Society

by Kristi Miyade, President 1989-90

**T**he past year for SAACS has been one of the busiest and most rewarding. As usual, we held sales of safety goggles and laboratory wear. The Coffee-Donut Hour for students and faculty on Friday mornings was supported in part by profits from these sales, as were other social events. We began the year with a Welcome Back Party in September, followed by the Oktoberfest and the annual Winter Party, which this year was held in the home of Dr. Bob Loeschen. During the spring semester we held our annual Taco Feast and Valentine's Day Party. The final social event of the year was the Pizza Awards Banquet, where departmental awards were presented to about 15 students for academic achievement and service. About 100 students and faculty were in attendance.

One of the most notable events of the year was the visit of Dr. Linus Pauling, the two-time Nobel Laureate. SAACS participated in the arrangements and sponsorship of his visit.

I would like to thank all my officers for their help and support: September

*Continued on Page 10*

## Advisory Council News

**T**he Chemistry and Biochemistry Advisory Council is an organization of twenty-five scientists and executives from business and industry who meet twice each year with the Chemistry and Biochemistry faculty, the Dean of the School of Natural Sciences, the Provost, and the President of the University to discuss matters relating to the department. The Council advises the department concerning its instructional program and informs the department of opportunities for interaction with the community.

**Jeff Jetter**, Research Chemist at the Unocal Research Center in Brea, has been named as the Designated Alternate for **Richard Stegemeier**, representing Unocal on the Chemistry and Biochemistry Advisory Council. Jeff is a 1982 BS Chemistry graduate of CSU Long Beach.

**Richard J. Stegemeier**, President, Chief Executive Officer, and Chairman of the Board of Directors of the Unocal Corporation, has been elected to the Board of Trustees of the University of Southern California. In addition to serving on the Chemistry and Biochemistry Advisory Council at CSU Long Beach, he is a member of advisory boards at Stanford, Northwestern, UC Los Angeles, the University of Missouri-Rolla, and CSU Fullerton.

**Dr. P. Sundararaman**, Senior Research Associate at Chevron Oil Field Research Co., will succeed **Dr. David Jeffrey** as the representative from that company on the the Advisory Council. Dr. Jeffrey is retiring from Chevron and returning to Texas to rejoin other members of his family. Dr. Sundara-

raman received his BSc and MSc degrees from Madras University in India and his PhD from Florida State University. He has been an employee of Chevron Oil Field Research for the past nine years, conducting research in the area of porphyrin chemistry. Prior to joining Chevron, he was a research associate of Dr. Carl Djerassi at Stanford University for a period of four years, and also served for one year as a lecturer on the chemistry faculty at California State Polytechnic University, Pomona.

**Matthew C. Watson** will replace **Roxann Pettis** on the Chemistry and Biochemistry Advisory Council. Both are employees of Nichols Institute Reference Laboratories, located in San Juan Capistrano, CA. Ms. Pettis resigned to join the Microbiology Advisory Council because she is an alumnus of that department and a practicing microbiologist.

Mr. Watson is Supervisor of Materials Management at Nichols. He is responsible for hiring, training, and general supervision of the materials management staff; he works with regulatory agencies such as EPA, OSHA, the Orange County Health Department and the local fire department to ensure compliance with all applicable laws. Mr. Watson holds a BS Degree in Environmental Biology with an emphasis in organic chemistry from Eastern Connecticut State University, Williamantic, CT, and received the MBA Degree from the University of Hartford, CT. In addition, he holds a Professional Certificate in Hazardous Materials Management from UC Irvine. ❖



**Dr. Linus Pauling with members of the Student Affiliates of the American Chemical Society. Left to right:** Dr. Steve McDowell, Advisor; Burt Secrest, President 1990-91; Kristi Miyade, President 1989-90; Dr. Pauling; September Rivera, Vice President 1989-90.

**Student Affiliates:** from Page 8

Rivera, vice president; Clyde Jones, treasurer; Tracey Gratto, secretary; Rich Charlebois, publicity director; and Sharon McKelvey and Eloisa Gonzales, activity directors.

The officers for 1990-91 are Burt Secrest, president; Sharon McKelvey, vice president; Ian Lockey, treasurer; Thea Finney, secretary; Dan Meder, activities director; and Cindy Stromen, publicity director. I wish you all success, and I know I leave SAACS in good hands.

I would like to say a "thank you" to all the others in the department who have helped, including the department secretaries and faculty. I especially want to thank Dr. Steve McDowell for all his help and support as faculty advisor to SAACS. ❖

## Endowed Awards in Chemistry / Biochemistry

### • Henderson Award



David Anvar, Henderson Awardee.

This year's Robert B. Henderson Memorial Award was given to David Anvar, who received his BS in Chemistry in 1988 (CSULB) and his MS in 1990. David will continue on for his PhD in Physical Chemistry this fall at UC Berkeley. Work for his thesis, entitled, "Graphics Simulation of Reaction Kinetics," was conducted under the direction of Dr. Henry Po. While a graduate student at CSULB he held a Teaching Assistantship.

The Henderson Award is given to a graduate, either BS or MS in Chemistry, who best exemplifies the

Continued on Page 11



## Gifts to the Department from Organizations

The value of all cash gifts to the department during the past year was \$32,097.62. Of this amount \$22,200 was contributed by companies and other organizations. Total giving was equivalent to more than half the funding provided by the State of California for our operating expenses. By any measure, our programs in Chemistry and Biochemistry are underfunded by the State, and we have come to depend upon gifts of alumni, businesses and other organizations to meet the expenses of maintaining a quality program in our department. For this we are most grateful! We wish to express our gratitude to the following donors for their very generous assistance:

Aerospace Corporation\*  
Atlantic Richfield Corporation\*  
Baxter Foundation\*  
Baxter Healthcare Corporation (Fenwal Division)\*  
California Biochemical Research Foundation  
Chevron Oil Field Research\*  
Ciba-Geigy  
Contel Corporation  
GAF Chemicals Corporation\*  
Hughes Aircraft\*  
Johnson & Johnson  
Rockwell International\*  
Student Affiliates of the American Chemical Society  
TRW\*

\*These companies are represented on the Chemistry and Biochemistry Advisory Council

## Gifts by Individuals to the Department

Gifts to the department amounting to \$9,897.62 were received from individual donors between August, 1989, and July, 1990. This includes matching gifts from employers of some of this year's 94 donors. **If you are considering a gift to the department and you are not certain, you might investigate whether your employer will match your gift.** This obviously multiplies the value of your contribution. **If you are contacted by students during the annual Phonathon requesting a gift to the University, we would appreciate your stating that your contribution is for the Department of Chemistry and Biochemistry, unless you wish your gift to be used for some other purpose.** Otherwise, unspecified gifts are shared among departments.

Each donor will receive a personal acknowledgement from the Chairman of the Department of Chemistry and Biochemistry.

Funds received from alumni are used for Alumni Scholarships and Awards, publication expenses of the *Chemistry and Biochemistry Newsletter*, and for emergency supplies and services. All of us, faculty, staff and students, appreciate your help in enabling us to continue to build a first-rate department.

When you return the insert in this *Newsletter* you might wish to enclose a gift. If so, you may make your check payable to:

CSULB Foundation/Chemistry Fund  
Department of Chemistry and Biochemistry  
California State University, Long Beach  
Long Beach, CA 90840-3903

## Honor Roll of Individual Contributors, 1989-90

Kelly J. Anderson	Peter D. Harney	John E. Neff II
Christopher Appleton	Richard L. Hudspeth	Raymond C. Newsom
Jerry A. Aspland	William H. Hulbrock	David R. Oliver
Peter Baine	John R. Jasnosz	Larry B. Neisess
Marc Barajas	Gregory L. Kalthoff	Michael M. Nishina
Danute Basiulis	Tina M. Kishishita	Micheline Ouellette
Andrea A. Baxter	Brett S. Kislin	Rick Pagliery
Kathleen Kordich Boman	Margaret Kline	James Papas
Reid Bowman	Ralph J. Knights	Steve L. Pentoney, Jr.
James Brophy	John D. Kulluk	Tommy D. Porter
Arthur W. Brown	Peter F. Langosh	Robert Proffitt
Oliver Brown	Leon D. Lazarus	Peter Alan Riley
Victor Cachia	John E. Leeb	Karen M. Rogers
Ancel R. Calloway	E. Kenneth Lesniewski	Robert J. Rona
Myriam E. Cardenas	Michael J. Locke	Paul D. Schumann
Roger B. Coulter	Tai O. Luk	James P. Sandstrom
Phil R. Cowan	Lewis Manring	Alan Senzel
Robert J. Deal	Kenneth L. Marsi	William R. Shoemaker
Eric J. Derbyshire	Kenneth Scott Marsi	Duane Smith
Ralph D. Dexter	Marianne Marsi-Manring	Vivian Smith
Carrol B. Dickens	Steven R. Masuda	Loren W. Steffen
Gregory J. Dorsman	Steven R. McGown	Leo J. Stemler
Gayle Doyle	Patrick McKay	William A. Thomasson
Jean-Bernard Durand	Tom McLaughlin	Mrs. William A. Thomasson
Tim P. Erwin	Anthony G. McLaughlin	Lily Vuong
Robert Faulis	Dorothy Middleton	Andrew D. Walker
Donald J. Ferm	Mary B. Milkovich	Stephen N. Wilhelm
Stephen Fritch	David J. Millam	Stephen N. Wilhelm
David S. Gardner	Ragnvald Mjanger	Curtis B. Winters
Dorothy Goldish	Robert R. Moss	Gerald Wuenschell
Elihu Goldish	Joanne A. F. Myers	Michael Yuen
Thomas E. Goyne	Donna M. Nagata	

## Honors to 1989-90 Graduates and Continuing Students

Parvaneh Alipourjeddi	Graduation Magna Cum Laude
David Anvar	Robert B. Henderson Memorial Award; Graduate Dean's List of University Scholars and Artists
Miki Aurang	Graduation Cum Laude
Bahareh Bahadini	Graduation Magna Cum Laude
Stacie K. Bailey	Graduation Cum Laude; California Foundation for Biochemical Research Fellowship
Greggory Brandt	Stern Award in Physical Chemistry; Chemistry Alumni Award
David K. Butler	Graduation Cum Laude
Karen Sue Curtis	Robert D. Rhodes Award; Graduation Magna Cum Laude
Johnny Eng	Organic Chemistry Award (Merck Index); Chemistry Alumni Award
Marcel A. Goldberg	Graduation Cum Laude

Continued on Page 13

### Awards: from Page 10

scholarship and commitment to the profession of chemistry shown by the late Professor Robert B. Henderson. Dr. Henderson was a member of our department for 28 years (1955-1983) and served as its first chairman.

### • Scoggins Award



David Porzio, Scoggins Awardee.

David Porzio, a June, 1990, BS Biochemistry graduate, was the recipient of the David L. Scoggins Memorial Award. The Scoggins award recognizes outstanding scholarship and promise by a Chemistry or Biochemistry graduate who intends to make a career in one of the health professions. David has been accepted into the UC Irvine School of Medicine where he will begin his studies in the fall of 1990.

Participating in the Commencement ceremonies to receive formal recognition for his graduation was David's father, Arthur Porzio. The senior Porzio was a 1962 graduate of the School of Business Administration. At the time of his graduation his Naval unit was called to active duty, and he was unable to receive his diploma in person from the then President McIntosh. Mr. Porzio is now an airline pilot for TWA.

David Scoggins, in whose memory the award is given annually, was a Chemistry Alumnus who was a dental student at the time of his death.

### • Stern Award

The John H. Stern Memorial Award was presented this year to Greggory Brandt, a major in the Department of Chemical Engineering who finished his

Continued on Page 13

## Current Activities of Some of Our 1989-90 Graduates



**Some Members of the 1989-90 Graduating Class.** *Front Row, left to right:* Marcel Goldberg, David Porzio, David Lennon, Michael Wanger, Samuel Nyenke, Craig Mann, Ross Herman, Rocky Houston, Gregory Whitaker, Edmund Barley. *Back Row, left to right:* Kiana Tabibzadeh, Bahareh Bahadini, Miki Aurang, Karen Curtis, Diane Johnson, Teresa Fletcher, Jeff Masse, Jamie Hancock, Darryl Fukuda, Linda Broussard, Hyun Ahn, Stacie Bailey, Clare Elser, September Rivera, Dr. Ken Marsi, Linnea Walker, David Butler, Rick Lasher, Arthur Porzio (School of Business Administration). Graduates may obtain an 8"x10" copy of this photograph by contacting Dr. Marsi.

Michael U. Aguon, BA Chem.  
 Hyun K. Ahn, BA Chem.  
 Parvaneh Alipourjeddi, BA Chem.  
 David Anvar, MS Chem.  
 Miki Aurang, BS Biochem.  
 Stacie K. Bailey, BS Biochem.  
 James G. Breitenbucher, MS Chem.  
 David K. Butler, BS Biochem.  
 Don Chung, BS Chem.  
 Karen Sue Curtis, BS Biochem.  
 Arthur Dixon, MS Chem.  
 Clare T. Elser, BS Biochem.  
 Denis C. Guttridge, MS Biochem.  
 Marcel A. Goldberg, BS Biochem.  
 Jamie L. Hancock, BS Biochem.  
 Clayton G. Harris, BS Chem.  
 Ross M. Herman, BS Chem.  
 Adam L. Hernandez, BA Chem.  
 Woody H. Jackson, BA Chem.  
 Diane S. Johnson, BS Chem.  
 M. Majid Khodabakhsh, BS Chem.  
 \*Kari Kramer, BS Biochem.  
 Rick K. Lasher, BS Biochem.  
 Hieu Thi Le, BS Chem.  
 Dorothy C. Lin, BA Chem.  
 Martha E. Lopez, MS Biochem.

Radiation Safety Officer  
 Pharmacy School, UC San Francisco  
 PhD Program, U of London  
 PhD Program, UC Berkeley  
 Research Assistant, CSULB  
 PhD Program, UC Irvine  
 PhD Program, UC Riverside  
 Medical School, Wisconsin College of Medicine  
 Dental School, U of Toronto, Canada  
 Douglas Aircraft, Long Beach  
 PhD Program, UC Santa Barbara  
 Baxter Healthcare, Santa Ana, Calif.  
 PhD Program, UC Irvine  
 Medical School, U of Kansas  
 PhD Program, UC Berkeley  
 PhD Program, UC Irvine  
 MS Program, CSULB  
 Medical School, UC Davis  
 Medical School, UC Davis  
 PhD Program, UC Irvine  
 MS Program, Chapman College  
 Medical School, UC San Francisco  
 PhD Program, Arizona State U  
 Associated Laboratories, Orange, Calif.  
 MBA Program, UC Irvine  
 Research Chemist, Baxter Healthcare, Santa Ana, Calif.

### Honors: from Page 11

Eloisa Gonzalez	First Place, CSULB Research Competition in the Physical and Mathematical Sciences
Jamie L. Hancock	Graduation Cum Laude; Biochemistry Award; Chemistry Alumni Award
Ross M. Herman	Inorganic Chemistry Award; Chemistry Alumni Award
Diane S. Johnson	Honors for Service
Sima Kabiri	Freshman Award (CRC Handbook); Chemistry Alumni Award
Phic Lim	Organic Chemistry Award (Merck Index); Chemistry Alumni Award; Polymer Chemistry Award
MinPing Liu	Advisory Council Tuition Scholarship
Jeffrey A. Masse	Khalil Salem Award; American Institute of Chemists Award; Chemistry Alumni Award
David R. Porzio	Graduation Cum Laude; David L. Scoggins Award; Chemistry Alumni Award
Stephanie Schwartz	Analytical Chemistry Award; Chemistry Alumni Award
Zarila Shariff	Honors for Service
Michael P. Wanger	Graduation Cum Laude; Toni Horalek Award for Service; Honors for Service
Ya-Li (Alice) Wu	Freshman Award (CRC Handbook); Chemistry Alumni Award
Ming Fang Yuen	Advisory Council Tuition Scholarship

### Corporate Fund Raising Planned for 1990-91

The University will assist the department in a corporate fund-raising program during 1990-91. The purpose of this activity will be to enhance the excellence of education in Chemistry and Biochemistry at the undergraduate and graduate levels by providing funds for scholarships and equipment and adding to the department's presently modest endowment account. If you or your company might be willing to participate, please call or write Dr. Ken Marsi, Chairman.

### Activities: from Page 12

Jim G. Lozano, MS Biochem.	PhD Program, UC Irvine
Roziahaman B. Mahmud, MS Chem.	Returning to Malaysia
Craig L. Mann, BS Chem.	MS Program, San Diego State U
Jeffrey A. Masse, BS Chem.	MS Program, CSULB
John F. Oldenburg, BS Biochem.	Science Teacher, Rolling Hills School, Rolling Hills, Calif.
Arlene T. Oto, MS Chem.	IT Analytical Services, Cerritos, Calif.
David R. Porzio, BS Biochem.	Medical School, UC Irvine
Sandra Putirka, BS Biochem.	MS Program, San Diego State U
Jon D. Rainier, MS Chem.	PhD Program, UC Riverside
Zarila Shariff, MS Chem.	Faculty Position, U of Malaya, Malaysia
Sharon L. Squires, MS Biochem.	American Qualex
David E. Tast, BS Biochem.	PhD Program, U of Southern Calif.
Nga Minh Vuong, BS Chem.	Orange County Water District
Michael P. Wanger, BS Biochem.	Medical School, U of Kansas
Gregory L. Whitaker, BS Biochem.	PhD Program, UC Riverside
Said Zamani-Kord, MS Chem.	PhD Program, UC Davis

\*Student accepted into program without degree

### Awards: from Page 11

junior year. This award is given to the most outstanding student in the year-course in physical chemistry. All Chemical Engineering students must complete at least one semester of physical chemistry, but may receive credit in their major for two semesters.

The Stern award perpetuates the memory of Dr. John H. Stern, a faculty member in the department for 29 years (1958-1987). Dr. Stern was well known and highly regarded for his research in solution thermodynamics and for his inspired teaching and interest in his students. ♦

### "Lost" Alumni

Over the years we have lost track of some of our alumni. Could you help us find them? If you know of their whereabouts, please let us know. Our phone number is (213) 985-4941. Thanks for your help.

1958

Robert Barrett  
Richard Morrison

1959

Allan Bike  
John Greene  
Edwin Larson  
Donald Mellem  
Rufus Morgan  
Paul McQuaid

1960

Harold Cover  
John H. Jones  
Robert Montgomery

1962

Gary Hargrove  
1963

Robert Coyle  
Lynn Hargrove  
John McGee  
Steven Timbrook

1964

Gerald Beadel  
1965

Dan Daniels  
Nickey DeRose  
Robert Mainey  
Marilyn Murray  
Harold W. Smith

Continued on Page 14

# Lost alumni

from Page 13

## Alumni News

1966

Eugene Olephant

1967

Karen Baier

Robert Walker

1968

Yukio Kakuda

Brian Stieler

1969

Carolyn Carpenter

Michael Easterling

Stephen Hansen

Jesse Swearingen

1970

Madeleine Arslan

Kaweewong Benchakarn

Paul Gouin

Michael Murvin

1971

Charles Lewis

Michael Taylor

1972

William Buchanan

Anne Liang

1973

Johnny Johnson

1974

Chang F. Lo

1975

Robert Chen

Sharon Herdan

Patrick Pakes

Paul VanCamp

1976

William McCoy

Marsha Smith

1977

M. J. Brueggeman

William Christiansen

William Fitzpatrick

Mojtaba Madani-Esfahani

Sherin Abdel Meguid

Rex Thornhill

1978

Ghassan Boutros

Denise Breskin

Kathleen Cannon

Oren Shelley

Curtis Simpson

1979

Patricia (Benner) Becker

Frederick Bobadilla

Robert Phillips

Wai Ip

For the first time in the sixteen-year history of the *Chemistry Newsletter* we have received information from at least one person in every graduating class since bachelor's degrees were first granted in this department in 1958. We enjoy hearing from you. The information which you send us about your career is sometimes shared with Chemistry and Biochemistry majors who are thinking ahead about their life's work. We will publish photographs, space permitting, if you care to send them. We have an Alumni Bulletin Board where current information about alumni is posted for faculty to read, and I can assure you that it is read with great interest.

There is sometimes a little confusion about graduation dates. For example, if you graduated at the end of the summer or fall semesters, you are officially listed as graduating the following year unless you have informed us of your actual graduation date.

1958

**Lloyd S. Peak, BS**, is Professor of Chemistry at Mira Costa College in Oceanside, CA.

1959

**Wilhelmina E. Hathaway (Loring), BS (MA CSULB)**, is Associate Professor of Chemistry at Riverside Community College. She also teaches a course in Introductory Chemistry for UC Riverside Extension for students enrolled in the Hazardous Materials Management Certificate Program.

1960



Amelia Niz Brown.

**Amelia Niz Brown, BS** (Science Teaching Credential CSU San Francisco), although not using her chemistry, is a specialist in finding the right home for clients. She and her husband, Jim Brown, own one of Marin County's top restaurants, La Lanterna. They are parents of four children.

1961

**Fred Dorer, BS (PhD U of Washington)**, continues as Academic Vice President at CSU Bakersfield. He served as Chairman of the Academic Computing Enhancement Committee for the California State University System for the period 1987-90. During the summer of this year he spent time visiting his son, a Peace Corps volunteer, in Tunisia.

1962

**John J. Jasnosz, BS**, is Technical Services Chemist for the City of Industry, CA. He received an award in 1988 from the Los Angeles Junior Chamber of Commerce for achievement in the aftermath of an almost fatal head injury suffered in 1985. He has developed a non-air polluting surface coating for the building materials industry. "I think enough of my education at CSULB that my license plate celebrates my education (see photo)."



John Jasnosz. Note personalized license plate.

## Alumni News

1963

**Dana G. Marsh, BS** (ME Rochester Institute of Technology, PhD UC Riverside), is Associate Professor in the Center for Imaging Science at Rochester Institute of Technology.

1964

**Per B. Christiansen, BS**, is President of Nalco Fuel Technology in Naperville, IL. Nalco is a new Joint Venture Company whose principal current technology is directed at NO<sub>x</sub> reduction from stationary combustion units.

**Beverly J. Garrigues, BS** (MA US National University). "After graduating, I took an additional year at CSULB where I earned my teaching credential. I taught high school chemistry for eight years and then 'retired' to raise a family. My husband of 27 years is also a CSULB graduate, and we have two children: Trisha, a junior at CSULB and Jonathan, a high school junior. I returned to school to earn my MA in Counseling Psychology and am now in private practice as a marriage and family therapist."



Beverly J. Garrigues.

**Evord F. Knights, BS** (PhD Purdue U, MBA CSU Fullerton) is a Vice President with Unocal.

**William Timberlake, BS** (MS UC Los Angeles), is a chemistry professor at Harbor College and is continuing as Treasurer of the UCLA Chemists' Association.

1965

**Judy Adams, BS** (MS Indiana U), is a college teacher, teaching mathematics and chemistry at North Idaho College in Coeur D'Alene. She spends free time traveling and painting. Judy plans to work on her PhD in Chemistry at the University of Idaho in the fall of 1990.

**Roger D. Griffin, BS**, published his first book, *Principles of Hazardous Materials Management*. Currently senior vice president and managing officer of Convers Consultants of Orange County, he teaches part time at CSULB and UCLA and lives in Irvine with his wife and five children.

1966

**Roger Clark, BS, MS 1970** (PhD U of Utah), won one of the 100 Research and Development Awards for 1989. "That means I developed one of the technologies which was judged the most significant worldwide in 1989." Roger works for Penwalt and lives in Pottstown, PA.

**Clois E. (Bert) Powell, BS, MS 1970** (PhD Rutgers U), is Director of Polymer Research with The Sherwin-Williams Company in Cleveland, Ohio. Bert and his wife, Mary, and their son, Robert (15), live in Highland Heights, Ohio.

1967

**Robert Jordan, BS, MBA 1976**, is Laboratory Supervisor with the Santa Margarita Water District. "Considering current and proposed environmental regulations, environmental chemistry could be a wise choice for students considering their future vocations...water,

## Lost alumni

*from Page 13*

Kedy Jao  
Cherie Nash  
Michael Rolwing  
Yee Tung  
Terry Visser

1980

Michael Crnkovich  
Rose Wan-Kee Ko  
Donald Monette

1981

Tam Chung  
Jocelyn Delestang  
Marianne Denny  
Gregory Downs  
Derek Kim

Loc Le

Jonathon Muniga  
Clayton Shepard  
Sorarith Thuy-Boun  
Diedre (Lee) Uku

1982

Robin Bjorgan  
Brian Glaudini  
Marilyn Saldivar  
Douglas Schoon

1983

Amon Zohreh  
Mehdi Ghardiri-Asili  
Melissa Peters  
Janet Tseng

1984

Lori Childres  
Rebecca Fensler  
Javad Rhezaei

1985

Zailuddin Ariffin  
Faridah Badrun  
Claudinetta Graham  
Noraini Hamid  
Jocelyn Honda  
Norlinda Nordin

Anjana Patel  
Jeffrey Saunders  
Aron Thall

1986

Kyung-Hee Lee

1987

Rosli Bujang

1988

Erin Alles  
Eri Hirumi

**Year Unknown**  
Stanley Ashbaugh  
William Bonocora

# CSULB

## Chemistry and Biochemistry Department

### Newsletter

August 1990, Number 15

An annual publication of the Department of Chemistry and Biochemistry for past and present students and friends of the department. News items, photos, and comments are eagerly invited. All articles not signed in this issue of the *Newsletter* were researched and written by the Editor.

**Kenneth L. Marsi,**  
*Editor*



"The Three Amigos" at IDEC Pharmaceuticals Corp. Left to right: Dr. Frank Norton (CSULB 1980), Dr. John Leonard (MS 1973), Dr. Paul Chinn (MS 1983).

Continued from Page 15

## Alumni News

wastewater, ground and air pollution, legal requirements, public administration."

**Ralph Knights, BS** (PhD Purdue U), is Manager of New Business Development for New Zealand Milk Products, Inc. "In addition to 'staffing up' and moving to new R&D facilities, I hope to start several new endeavors which will mean new products and stronger business for nutritional products. I am enjoying the autonomy of this position."

**Tom McLaughlin, BS** (PhD UC San Diego), is Chemist/Senior Environmental Scientist with CH2M Hill in Herndon, VA.

**Alan J. Senzel, BS** (MS, PhD UC Los Angeles), is Project Scientist with Ciba-Geigy Corp. in the Residue Chemistry Department, Agriculture Division, in Greenboro, NC. He works on documentation for agricultural chemical registrations with emphasis on lower application rates and increased attention to environmental concerns. "My wife, Phyllis, is still Child Support Enforcement Supervisor for Wake County, NC. Son, Richard, is a sophomore at Duke U, studying political science and statistics. Daughter, Lisa, will attend Washington U in St. Louis, where she has been awarded an Arthur H. Compton Scholarship in Physical Sciences and Mathematics (biology concentration)."

### 1968

**Raymond E. Ouellette, BS**, resigned his position with Shell Western E&P to become Principal Environmental Engineer with Mittelhauser Corp., Laguna Hills, CA, a leading hazardous waste consulting company. He is responsible for regulatory interpretation and assisting clients with implementation of hazardous waste minimization programs.

**Harry G. Schmus, BS**, is Senior Applications Scientist with Hitachi Instruments in Danbury, CT, and specializes in UV-Vis-NIR Spectroscopy.

**James R. Scott, BS** (DDS U of Southern Calif.), is a staff dentist with United Health Centers, practicing rural dentistry for migrant farm workers in the Fresno area.

### 1969

**Don Byers, MS** (BSc McGill U), has taken a two-year leave of absence as assistant department head, Chemistry Section of the Northern Alberta Institute of Technology (Canada), to become Registrar for the Alberta Society of Engineering Technologists. This organization represents about 9000 technicians and technologists in the Province. He serves as President of Manchester Resources, an oil and gas producer, now exploring for gold in British Columbia. The Byers family had a new addition in March, Bradly, who joined Kaylee and Kyle.

**John E. Leonard, BS, MS 1973** (PhD UC Riverside), is Group Leader in the Biochemistry and Product Development Department of IDEC Pharmaceuticals Corp., La Jolla, CA. "My initial responsibilities included development of conjugation protocols to couple antibodies to various carrier proteins. Shortly after I started work here **Frank Norton** (Master's Student 1980 CSULB, PhD UC Davis) joined the company, and in May, 1989, I hired **Paul Chinn** (MS 1983 CSULB, PhD UC San Diego) to work with me in the Biochemistry group. Also in 1989 I took on the additional responsibility of Product Development. In this capacity I manage the development of potential antibody products through their preclinical evaluation, through the submission to the FDA for permission to enter Phase I Clinical Trials, and through the clinical evaluation process."

### 1970

**Robert H. Frisbee, BS, MS 1972** (PhD UC Santa Barbara), is a member of the Technical Staff of the Jet Propulsion Laboratory in Pasadena, CA, where he is involved in analysis of advanced space propulsion concepts.

**Michael L. Porter, BS**, is Principal Environmental Consultant with Atmosphere Assessment Associates in Chatsworth, CA.



## Alumni News

1971

**Phil R. Cowan, BS**, is Engineering Section Head, Composites and Nonmetals Materials at TRW Space and Defense in Redondo Beach, CA. In his current role with TRW he manages a section of 20 engineers, scientists and technicians developing and adapting advanced composite materials to structural applications. He also serves as technical focal point for environmental regulation/compliance issues for TRW's Manufacturing Division. His wife, Vicki, is a 1979 journalism graduate.

1972



Moscow's McDonald's laboratory personnel trained by Chris Appleton, BS 1972. Left to right: Anna, Lena, Alexander, Natalia, and Svetlana.

**Chris Appleton, BS**, heads up the quality assurance program for McDonald's Corporation. Recently, he designed and equipped the quality control laboratories and provided procedures and a plan of quality assurance for the huge new McDonald's restaurant in Moscow. "I learned much about the Soviet food industry, their technology, and some Russian. It is sad to witness the day - to - day

hardships and frustrations of the people in Moscow, but I believe we have made a difference by bringing new food processing equipment and the beginnings of a modern food delivery system. What little German I learned as a requirement for my chemistry degree proved useful in setting up some equipment that was purchased in West Germany." [Editor's Note: An Associated Press release dated July 21, 1990, noted that, "Even 5,000 burgers or sandwiches an hour is not enough to satisfy Soviet hunger for a taste of the West. The lunchtime line is 90 minutes and 1,200 people long. Six months after opening, the Golden Arches have eclipsed the popularity of even Lenin's tomb."]

**Leon Lazarus, MS** (BA Brooklyn College), is an Environmental Scientist with the EPA in Edison, NJ. He is married and has two children, 10 years and two months, and lives in Princeton Junction, NJ. He recently wrote a manual on organic superfund data validation.

**Mark Ontkean, Student 1972** (BS Northern Arizona U, DC Los Angeles College of Chiropractic), is a Doctor of Chiropractic and Clinic Director in Orange, CA.

1973

**Larry P. Clarke, BS**, is employed in chemical sales with H. M. Royal, Inc. in Buena Park, CA.

**Carol Handy, MS** (BA Whittier College, MS U of Oregon), is a chemistry instructor at Portland Community College in Portland, OR.

**Michael J. Locke, BS** (MS, PhD UC Irvine), works as Senior Scientist for Rockwell International in Newport Beach, CA. He is concerned with failure analysis and process development for semiconductor manufacturing.

**Bob Rona, MS** (PhD Rutgers U), is in a polymer synthesis group with Products Research and Chemical Corp. in Burbank, CA. He has responsibility for preparing and evaluating new materials to be used as sealants, coatings, and adhesives. He and his wife, Rebecca, have three children, a son (3) and two daughters (13 and 11).

**Gary R. Weihe, BS** (PhD UC San Diego), is employed as Application Engineering

## Lost alumni

*from Page 15*

William Bope  
 Charles Bump  
 Kai-Shen Chao  
 Keith Chen  
 David Cranford  
 Kenton Crowley  
 Beverly Curry  
 Michael Deems  
 James Donnelly  
 Christopher Farrell  
 John Fox  
 Lester Fullmer  
 Michael Gardos  
 Hideki Goko  
 Thomas Gregg  
 Lana Grussing  
 Hassan Hashtroudi  
 Don Hebert  
 John Henthorn  
 Fathia Ibrahim  
 Foad Jahansouz  
 Albert Kamego  
 Susan (Dusablon)  
     Kashiwada  
 Byeong Kim  
 Douglas Kirk  
 Allen Kong  
 Yishiu Kuo  
 Patricia Larsen  
 Mary Mailander  
 Ellen Mortazavi  
 Natasha Neihart  
 Tom Neihart  
 Stephen O'Barr  
 Prak Ongkananantlert  
 Panom Panich  
 Mike Rose  
 Jyoti Shah  
 Robert Sheeran  
 Abolghassem Tehrani  
 Richard Thompson  
 David Warden  
 Charles West  
 Douglas Wheeler  
 Robert Williams  
 Wai-Kwok "Rick" Wong  
 David Worden



*Continued on Page 18*

## Alumni News

Manager with Raychem/Advanced Packaging Systems in San Jose, CA. He is involved with microelectronic packaging and technical marketing.

### 1974

**Marina Larson, BA** (PhD U Southern Calif., JD Pace U), is a patent attorney with Brumbaugh Graves Donohue & Raymond, Rockefeller Plaza, New York City.

**William Moody, Student** (MD Autonomous University of Guadalajara), is involved in private practice in Fallbrook, CA. He and Mrs. Moody are expecting a child in September.

### 1975

**Prabha Bhalla, MS**, is presently a housewife and mother of two children and living in Orange, CA.

**Albert Chan, MS** (PhD U of Nebraska Medical Center), is Assistant Professor, Department of Pharmacology & Toxicology, The University of Mississippi Medical Center in Jackson, MI.

**John Landrum, BS, MS 1978** (PhD U of Southern Calif.) is Associate Professor of Chemistry at Florida International University, Miami. "I am Graduate Coordinator, and our MS Degree program has grown from two students in 1987 to eight full-time graduate students and four part-time students. I have two enthusiastic graduates doing porphyrin research in my lab. We should move into our new Chemistry Building in January of 1991. My spare time is spent with family: Eileen and children, James (6), Elizabeth (3), and Jeffrey (1)."

**Robert Ono, MS** (PhD UC Irvine), is Professor of Chemistry at Los Angeles Pierce College. On May 18 he presented a seminar at Pierce College based upon his sabbatical year experiences and entitled, "Reflections of an American Chemist in Europe."

**Bill Starmann, BA**, is employed as Senior Technical Engineer in Materials/Process Engineering at Hughes Aircraft Co. in El Segundo, CA. He is married and has two children, ages one and four.

### 1976

**Larry B. Neisess, MS**, has a position with the County Sanitation Districts of Los Angeles as a research chemist at the San Jose Creek Laboratory. "The research we do here is mostly geared to developing new analytical procedures."

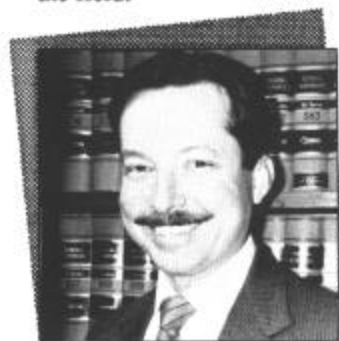
**Michael Yuen, BS**, works for General Motors/Automotive Component Group Division in Warren, Michigan.

### 1977

**Danute I. Basiulis, MS** (BS U of Massachusetts, MBA Pepperdine University), is Manager of the Materials Science Department with Hughes Aircraft in El Segundo, CA. Dana is also a member of the Chemistry and Biochemistry Advisory Council for our department, representing Hughes Aircraft.

**Greg Dorsman, BS, MS 1983**, is employed with Kerr Manufacturing (formerly Sybron) in dental materials research and development. "I am often called on to give our corporate attorneys advice in chemical and formulations patent infringement cases, which is something I find rather intriguing. I am now a project leader in charge of Glass Ionomers." He and Lorna (a dental hygienist) have four children, Nicholas (12), Christine (7), Caroline (4), and Melanie (2 1/2).

**Bill Lane, BS, MS Biology**, is Sales and Marketing Manager for Midac Corporation in Costa Mesa, CA. He and his wife, Lu Ann, have a son Mikey (10). "I travel in my present job and enjoy seeing CSULB Chemistry Alumni frequently in the field."



Kurt A. MacLean.

**Kurt MacLean, BA** (JD UC Los Angeles), was recently featured in a lengthy article in the *Orange County Business Journal* (January 22, 1990, p. 9). Kurt transferred his legal practice with Poms, Smith, Lande & Rose from its main office in Century City to the City of Orange. The company specializes in law pertaining to intellectual property matters. Much of his client base is related to pharmaceutical and electronics companies, a growing industry in Orange County. "In patent law you have to be an attorney plus have a technical background in such areas as electrical engineering, computers, physics, or plastics," according to Kurt. He states that the benefits of being a patent attorney include performing positive services and dealing with sophisticated clients--inventors and corporate presidents. "Originally, I wanted to teach after I received my degree in chemistry. The job market was dismal, so I went to law

## Alumni News

school as a challenge because I had always been intimidated by it." Kurt's wife, Stephanie, whom he met at CSULB, is working on a master's in counseling and psychology.

**Ragnvald Mjanger, BA** (MD U of Oslo, Norway), practices Obstetrics and Gynecology in St Paul, Minnesota, where he is in private practice. He graduated from medical school in 1982 and was a General Practitioner in Norway for 1 1/2 years before returning to the United States. He and wife, Vicki, have three children, Stian (18), Siv (13), and Erik (8).

**David Oliver, BS, MS 1979**, is Professor of Chemistry and Physics at Ventura College, transferring from Oxnard College this year. He will be one of seven chemistry professors on the staff.

### 1978

**Ancel Ray Calloway, BA**, is Manager with Aerospace Corp. and continues as the alumni representative on our department's Chemistry and Biochemistry Advisory Council.

**Chris A. Pritsos, Student**, (PhD U of Nevada, Reno), is Assistant Professor of Nutrition and Biochemistry. His specialties are cancer chemotherapy, tumor biology, and oxygen radicals; also the mechanism of action of antineoplastic agents. "I begin the second year of my NIH/NCI 'First Award' grant. My wife, Karen, is a laboratory research associate at the University of Nevada. We also have a three-year-old daughter, Jenna."

**Robert Proffitt, BA**, is a biomedical computer programmer at Children's Hospital of Los Angeles in the Autologous Bone Marrow Transplant Laboratory. He also continues with his consulting business, R. T. Enterprises. His wife, Pattie, continues to work at Long Beach Memorial Medical Center as an Oncology RN. Their children are Matthew (5) and Eric (4).

**Donald Roberts, BS**, is Senior Research Professional in Pharmaceutical Research at Allergan Inc., Irvine, CA.

**Randall E. Smith, BA** (MS West Coast University), is Senior Engineering Technologist in Materials Engineering at Douglas Aircraft in Long Beach, CA.

**John Spille, BA**, is an owner of his own business and lives in Ventura, CA.

**Gerald E. Wuenschell, BS** (PhD U of Southern Calif.), a Research Fellow at California Institute of Technology, is performing research on new protein purification techniques in the laboratory of Dr. Frances H. Arnold. On March 29 of this year, Gerald and Carol announced the arrival of Arthur Patrick, their first child.

### 1979

**Steve Castellino, BS** (PhD UC Riverside), is Assistant Professor of Chemistry at North Dakota State University in Fargo.

**Stephen Fritch, MS** (BA U of Colorado), is Criminalist II with the Long Beach, CA, Police Department. He recently took a course in "clandestine laboratories," covering illegal manufacturing of drugs and safety issues.

**Steve Jones, MS** (BS Washburn U, PhD UC Riverside), is Laboratory Director of Terra Tech Laboratories in Huntington Beach, CA. His company will be moving to new laboratory facilities in Santa Ana, CA, in the near future. Terra Tech is an environmental testing laboratory with a significant commitment to the use of mobile laboratories.

**Patrick McKay, MS**, was recently promoted to Senior Research Associate with Genentech, Inc., in South San Francisco. "I have just finished my first year in the Process R&D Department after a nine-year stint in the research groups at Genentech. I had a recent publication in *Journal of Biological Chemistry* as part of a collaboration with a group in Australia." Pat and Mary have two children, Brian (4) and Allison (6 months).

**Curtis Winters, BS** (MD U of Southern Calif.), is an anesthesiologist and practices in San Diego. His wife, Jane, is a nurse.

### 1980

**Robert Blair, MS**, is Research Associate in organic synthesis with Bio Research, Inc., in San Diego. "In the last three years I have had the opportunity to participate with others on the synthesis and purification of urethane-protected *N*-carboxyanhydrides, a novel method of amino acid activation in solid-phase peptide synthesis." A paper in the *Journal of Organic Chemistry* and a patent have resulted from this work.

**Victor V. Cachia, BA** (BS, DPM Calif. College of Podiatric Medicine), is a podiatric surgeon, practicing in Mission Viejo, CA. "I am very happy with my career choice. It is a diverse profession which allows me to treat all age groups from infant through adult and to deal with a mixture of syndromes that affect every organ system. I find the reconstruction of neuromuscular, post traumatic, and congenital deformities the most challenging, but enjoy it all, including my work with athletes, particularly tri-athletes and runners."

**Brian C. Dubow, BS**, is Project Engineer/Program Manager with General Dynamics, San Diego, working on modular stand-off weapons and long-range conventional stand-off weapons programs.

**Thomas R. Eldridge, BA** (DC Los Angeles College of Chiropractic), is owner of his practice in Denver, CO.

**Leslie J. Gilpin, Student, BS Zoology, Teaching Credential**, teaches Chemistry and Physical Science at Lakewood High School. "I am enrolled in Project Catalyst--a 2.5-year Earth Science program sponsored by CSU Fullerton. Concurrent with Catalyst is a Master's in Education (MAT-S) at CSUF."

**K. Scott Marsi, BA** (MS San Diego State U), is National Sales Manager, Surfactants & Speciaties Group, for Rhone-Poulenc, Inc. He and his wife, Linda, and daughter, Aiko (4), have moved from Hopatcong, NJ, to Long Beach, CA.

**Frank Norton, Student** (PhD UC San Francisco), received his doctorate in immunology, was a postdoctoral associate of Dr. Joel Goodman at UC San Francisco for three years, and now is a research scientist with IDEC Pharmaceuticals Corp. in La Jolla, CA.

**Karen M. Rogers, BA, BS Criminalistics**, is Quality Assurance Manager in Manufacturing and Compliance with Taco Bell Corp., Irvine, CA.

**Cheryl Shimazu, MS**, has been appointed to a tenure-track position at Cerritos College, teaching quantitative analysis and preparatory chemistry classes. She also is a part-time lecturer in the Chemistry and Biochemistry Department at CSULB.

**Duane R. Smith, BS, MS 1982**, is a graduate student in ion microscopy at Cornell University. He, his wife, Vivian (BS 1985 CSULB), and daughter, Diane (2), are enjoying the lifestyle offered in Ithaca, NY.

**Kenneth S. Yamaguchi, BS, MS 1982** (PhD UC Riverside), is a research chemist with L'Air Liquide Centre de Recherche Claude-Deforme in France. He enjoys traveling throughout Europe.

## 1981

**Jim Denman, BS**, is Senior Staff Engineer in materials and process engineering at Hughes Aircraft. In August of 1989 he and Alison Perfall, a CSULB alumnus, were married. He is working on UV effects on Aramid materials *in vacuo* and conductive adhesive systems for mirror bonding.

**Laurene Duke, BA** (DDS UC Los Angeles), purchased a dental practice in January, 1990. She and her husband, Scott Montgomery, have three children, Wesley (5), Chelsea (3) and Sharon (4 months).

**Tim Erwin, BA** (PharmD U Southern Calif.), and his wife announce the birth of their third child, Shelby Christine, born last September. He reports, "There are many opportunities for pharmacists right now; perhaps you could pass this information along to your students."

**Sean P. Grady, BA**, works as a product assurance engineer for Western Digital and lives in Laguna Hills, CA.

**Richard Hudspeth, MS** (PhD U of Southern Calif.), is a molecular biologist and Project Director at PhytoGen, Inc., in Pasadena, CA. "I continue to work on genes from corn encoding phosphoenolpyruvate carboxylase (a key enzyme involved in C4 photosynthesis). I am investigating the expression of these genes in transgenic plants in order to identify 'upstream regulatory sequences.'"

**Bette Korber, BS** (PhD Caltech), is a postdoctoral research fellow at the Harvard School of Public Health, Cancer Biology, in Boston, MA.

**Jack E. Long, BA** (MD U of Cincinnati), is a Fellow in Endocrinology at the Wadsworth Veterans Administration Medical Center in Los Angeles. He and Emily have two children.

**Michael Nussbaum, BA** (MD U of Southern Calif.), is a Diplomate, American Board of Internal Medicine, and is a Resident in Anesthesiology and Critical Care at UC Irvine Medical Center.

**Thomas V. Harmon, BA** (MA U of Southern Calif., MD U of Pittsburgh), is a Surgery Resident with the Southern California Permanente Medical Group. His wife, Beth, is the Financial Reporting Manager at Avery in Covina. They recently moved to West Covina.

## 1982

**Jeff Jetter, BS**, continues with Unocal Corp. in Brea, CA, as a research chemist. Jeff has just been named Unocal's representative to our department's Chemistry and Biochemistry Advisory Council.

**Pamela Jetter (Hubler), BS**, works with IT Corp. in Cerritos, CA, in the area of environmental analytical analysis.

**Terry Schneider, MS** (BS U of Puget Sound), is Deputy Project Engineer in Research and Development Engineering with Rohr Industries, Inc., and lives in Riverside, CA.

**William Shoemaker, BS** (MD UC San Francisco), has just completed his Residency in Internal Medicine at UC Irvine. He will be married in October to Dr. Leslie Jacobs (also a former UCI resident), and they will set up practice together in Las Vegas, NV.

## Alumni News

**Diana Talpos, BA** (MD UC Irvine), is Resident in Neurology at the UC San Diego Medical Center.

### 1983

**Paul Chinn, MS** (PhD UC San Diego), is employed with IDEC Pharmaceuticals Corp. in La Jolla, CA. He and his wife, Rozanne, have a baby daughter, Kaitlin.

**Stefan Isak, BS**, will be completing his PhD in physical/analytical chemistry at the U of Utah this winter and then plans to work in industry.

**Kathleen Kordich, BA** (DDS UC Los Angeles), works as a dentist in Loma Linda, CA. In 1989 she and Tim Boman (BA CSULB) were married.

**Sonia Molina, Biomedical Sciences** (DDS, Master's in Public Health Harvard University), is a General Resident at UCLA/Wadsworth Veterans Administration Hospital in Endodontics.

**Dona Moromisato Nagata, Student** (DDS Loyola U, Chicago), is a self-employed dentist in Westminster, CA.

**Stephen L. Pentoney Jr, BS** (PhD UC Riverside), is Principal Research Chemist with Beckman Instruments, Advanced Development Unit, in Fullerton, CA. "I completed my postdoc with Dr. Richard Zare at Stanford, and then spent a year with Beckman Instruments Spinco Division in Palo Alto. In April of 1990 I accepted an offer to become part of Beckman's newly-formed Advanced Development Unit where my research interests continue to involve capillary electrophoresis."

### 1984

**Ihab Bishay, BS** (PhD UC Irvine), is a Senior Scientist in Rheology at Bristol Analytical Research, Rohm and Haas Co., Bristol, PA. He is responsible for rheological testing of the large variety of plastics and additives that are made at Rohm and Haas. He and his wife, Maggie, have two children, Joshua (2) and Alexandra (6 months).

**Eric J. Derbyshire, BA** (MBA U of Phoenix), is an engineer and group leader with ICI Fiberite Composite Materials in Tempe, AZ.

**Jean-Bernard Durand, Student 1984** (MD Wisconsin College of Medicine), is a physician at Loyola University Medical Center in Chicago, IL.

**Ellen Greenman, BS** (Secondary Teaching Credential CSU Dominguez Hills), is a mathematics teacher in the Los Angeles Unified School District at Hollywood High. "It is with the hope of contributing to a turnaround in this trend (scientific illiteracy) that I remain in this difficult, yet satisfying profession."

**Theresa Rohr-Kirchgraber, BA** (MD Cornell U Medical College), is a Resident in University Hospitals of Cleveland, OH, and lives in Euclid, OH. She and her husband, Paul, also a physician, are expecting their first child.

**Susan Sheets Schwerdtfeger, Student** (DDS U Southern Calif.), practices dentistry in San Pedro, CA.

**Anne L. Tolles, MS**, is President of Advanced Immunochemical Services, Inc., producing and marketing antibodies. The company's products are useful for researchers studying Alzheimer's Disease and spinal cord injury.

**Nancy Wildman, BA**, is a chemistry teacher for the ABC Unified and Long Beach Unified School Districts. While caring for her daughter, Amanda, Nancy is substitute teaching two or three days a week and is preparing to return to full-time teaching in the fall.

### 1985

**James Bonander, BS**, is Research Engineer in the Research and Development Center for Beloit Corp. in Clarks Summit, PA.

**Joy Condon, BS** (PharmD U of Southern Calif.), began a one-year clinical residency at Long Beach Memorial Medical Center in July, 1990.

**Hung Dwan Lee, MS**, is the owner of Colima Realty, Inc., in Rowland Heights, CA.

**Richard Pagliery, BA, MS 1990**, will be attending Pennsylvania State U beginning the fall semester of 1990 to study for the Doctorate in Chemistry.

**Deborah Schwyter, MS** (PhD UC Los Angeles), is a researcher at Children's Hospital of Los Angeles. She will investigate neuroblastoma, a sarcoma of nervous system origins, affecting mostly infants and children up to 10 years of age.

### 1986

**David H. Benton, BS**, is an environmental engineer and member of the technical staff of Hughes Aircraft Co. in El

## Alumni News

Segundo, CA.

**Elizabeth Brinkman, BS, MS 1987**, continues as a doctoral candidate in physical chemistry at Stanford U.

**Paz Elat, BA**, continues as a medical student at SZOTE School of Medicine in Szeged, Hungary. At Christmas 1989 Paz wrote, "The upheaval in Hungary and Poland brought a wave of change in most of the other East-block countries; the East Germans, escaping to the West through Hungary, were seen everywhere, leaving their cars and most of their belongings here in Hungary. There are hundreds of cars parked in the streets without anyone to claim them."

**Robert T. Faulis, BA**, was the top retail salesman in the nation for 1990. He is Fleet Sales Manager for Buick Mart, Inc., in Cerritos, CA.

**Jim Papas, BA**, is Manager for International Services, reporting to the Vice President for International Operations with GAF Chemicals Corp., Wayne, NJ. He is responsible for providing support services to GAF's international subsidiaries and is involved in much international travel.

**Bharat Patel, BA**, is attending medical school at UC Los Angeles.

**Patrick Jay Petti, BA**, received his Doctor of Pharmacy Degree from the U of Southern Calif. at the Eighty-third Commencement of the School of Pharmacy on May 10, 1990.

**Brian D. Schmidt, BS**, is Laboratory Technician III, working with precious metals at Engelhard in Anaheim, CA.

**Robin Underwood, BA**, is Senior Environmental Engineer at McDonnell Douglas in Long Beach, CA, and also serves as a lieutenant in the US Naval Reserve.

### 1987

**Peter Ferrera, Student**, is a fourth-year medical student at Ludwig Maximilian U in Munich, West Germany.

**Angela Daniels (Wranic), BS**, works as Staff Chemist in gas chromatography at Earth Technology Analytical Laboratories in Huntington Beach, CA.

**Bill Jeong, BA**, is Chemist Coordinator, supervising chemists and technicians at Enseco in Garden Grove, CA. He has begun the MBA program at Pepperdine University.

**Brett Kislin, MS (BS Emory U)**, is Research Assistant II at R. W. Johnson Pharmaceutical Research Institute, specializing in syntheses. He will begin a PhD in Chemistry at UC Santa Cruz this fall.



Larry and Susan Matsumoto.

**Larry Matsumoto, BA**, will begin his second year as a medical student at Creighton U in Omaha, NE. He is active on the Curriculum Review Committee and has been appointed as the Creighton Delegate to the Nebraska Medical Association.

**Richard Nighswonger, BA**, works as a Sales Engineer for GAF Chemical Corp., in Santa Ana, CA.

**Beth Simmons, BS**, is employed as a Materials and Process Engineer with McDonnell Douglas in Long Beach, CA. She is currently working on a Master's in Computer Science at CSU Fullerton.

**Mark Smittle, BS**, works as Senior Laboratory Analyst with the Orange County Sanitation Districts in Fountain Valley, CA.

**David Tomlinson, MS**, is a consultant with Ecology and Environment in Los Angeles, CA.

**Gerald Y. Uyesato, BA**, has completed his third year at the UC San Francisco School of Pharmacy and will graduate in June, 1991.

**Tracey L. Wheeler, BA**, teaches Eighth Grade Physical Science at Fleming Junior High School in the Los Angeles Unified School District.

### 1988

**David Anvar, BS, MS 1990**, will begin the PhD program in physical chemistry at UC Berkeley this fall. David was the recipient of the Robert B. Henderson Memorial Award in Chemistry in the spring of 1990 for outstanding academic achievement in his graduate studies.

**Mike Baker, BA**, will complete his second year in pharmacy school at UC San Francisco. He works part time at San Jose Medical Center while attending school, and full time during the summer.

## Alumni News

**Andrea Baxter, BS**, is Research Associate with Baxter Healthcare Corp. She will begin medical school in the fall at the U of Oklahoma.

**William Cicio, BA**, is completing his second year in medical school at SUNY Stony Brook School of Medicine. "I've been involved in a medical student-run program where we go out to local high schools and give talks about AIDS. Since education is presently our only effective weapon against AIDS, I find this work most rewarding."

**Kerry W. DeGroot, BS**, has begun his third year of medical school at Georgetown U. Last year Kerry was elected Georgetown representative to the American Medical Student Association. During his term the national meeting of AMSA was held at Georgetown U.

**Martin Edep, Student**, will begin his second year of medical school at UC San Francisco. He served as a member of the Admissions Committee and taught Anatomy to the first-year medical students. During the past year he was involved in a research project directed at finding a cytotoxic factor in the disease, *Preeclampsia*.

**Michael Kahr, BS**, is a graduate student in Chemistry at UC Riverside. "I have been collaborating with Francois Dieterich from UCLA, and we hope to submit a paper to the *Journal of the American Chemical Society* soon."

**E. Ken Lesniewski, MS**, left his position as Technical Sales Representative with GAF Chemicals Corp. to take a similar position with Texaco. Ken lives in Irvine, CA.

**Alondra Little, BA**, is Analytical Chemist with the US Food and Drug Administration, involved in pesticide residue analysis. "We examine domestic and imported fruits, vegetables, fish and other food products. If the residues are above the accepted tolerance level, the FDA is responsible for seizing the products."

**Chris Nanney, BS**, is a chemist with Uniroyal Chemical Company in Brea, CA.

**John Olson, BS**, is organic chemistry supervisor at Terra Tech Laboratories in Huntington Beach. Work relates mainly to environmental testing.

**Paul Serra, MS (BS Bio Science, BS Chemistry UC Irvine)**, is attending UC Davis School of Medicine and will be graduating in 1991. He is intending to specialize in Family Medicine. He and his wife, Amanda, have two daughters, Elizabeth (4 1/2) and Victoria (2).

**Elizabeth Anne Siegfried, BA**, is an atomic absorption and ICAP analyst with SCS Analytical Laboratory in Long Beach, CA.



Andrea Baxter.

### 1989

**Tim Bacon, BS**, is involved in PhD research in the laboratory of Dr. Bryan E. Kohler at UC Riverside, studying laser spectroscopy of substituted linear polyenes.

**Rachelle Blue, BS**, is Laboratory Manager with Precision Laboratories Environmental Services in Orange, CA. She was responsible for setting up an environmental laboratory and is involved in environmental analysis.

**Rita Glor, BS**, is a medical technologist with Diagnostic Product Corp. in Los Angeles. She will begin medical studies at the College of Osteopathic Medicine of the Pacific this fall.

**Darin Hayton, BS (MS U of Keele, England)**, has been offered membership on the Olympic Cycling Team for the 1992 Olympics. He has also been accepted for the PhD program in Chemistry at Ohio State University.

**Steve L. Martin, BA**, will begin a PhD program in archaeology at UC Los Angeles in September.

**Lily N. Vuong, BA**, is the Wet Chemistry Group Leader at Earth Technology Laboratories in Huntington, Beach, CA.

**William Walton III, BA**, has completed his first year of dental school at the University of Nebraska, Lincoln.

**Carter White, BS**, continues his second year in the PhD program in Chemistry at Iowa State U, Ames. His research is in collaboration with Professor Robert Angelici in organometallic chemistry.

**Steve Wilhelm, BS**, is Vice President of Niklor Chemical Company in Long Beach.

**Sarina D. Williams, BS**, has completed her first year of medical school at Baylor College of Medicine in Houston, TX.

**Marco Wong, BA**, will begin his second year of medical school at Wayne State University this fall. He reports, "The emphasis is on covering a lot of material, rather than in depth."

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***"Fortunately science, like the nature to which it belongs, is neither limited by time nor by space. It belongs to the world, and is of no country and no age. The more we know, the more we feel our ignorance; the more we feel our ignorance the more we feel how much remains unknown; and in philosophy the sentiment of the Macedonian hero can never apply - there are always new fields to conquer."***

— SIR HUMPHRY DAVY, 1825.



From the Chemistry Archives: Chemistry Bachelor's Candidates, Spring 1968. *Left to right:* Angel Juarez, Lawrence Lennon, Raymond Ouellette, Eddie Carbin, Lance Eggenberger, Norman Hester, Wayne Loomis, Erick Hoyer.