

Chemistry and Biochemistry Department Newsletter

Fall, 1994

Number 19

Dr. Nail Senozan Named University Outstanding Professor

Dr. Nail Senozan, Professor of Chemistry, was named University Outstanding Professor for the 1993-94 Academic Year, joining a select group of faculty at CSULB who have been so honored over the years. He has been an exemplary professor—a highly skilled communicator and teacher, an imaginative researcher with an impressive record of publications in the finest journals and a faculty member with a record of exceptional service to the department and university.

Dr. Senozan came to the United States from his native Turkey for his undergraduate and graduate education, receiving his BSc degree with highest honors from Brown University in 1960 and his PhD from UC Berkeley in 1965. He joined the Chemistry faculty at CSULB in 1964 as an Assistant Professor and quickly rose through the ranks to become Professor in 1975.

"I try to teach with clarity and depth, to encourage a habit of thinking and understanding, and to develop skills in problem solving."

Dr. Senozan is known for his superb ability to reduce to understandable terms the most complex

Photo by Robert Freiligh



Dr. Nail Senozan, Outstanding Professor

ideas of chemistry. He is popular with the students, but uncompromising in his demands for excellence, as any one who has ever taken classes with him will hasten to relate.

Maintaining his ties with his native Turkey, he served twice, in 1984 and again in 1990, as a Fulbright Senior Lecturer at Ege University in Turkey. He was appointed visiting lecturer at Ataturk University in 1967, and at the Technical University of Istanbul in 1982. He also served as Visiting Scientist at Duke University Marine Laboratory in 1977.

The university had previously honored him with a Summer Fellow-

Dr. Jacqueline Barton: 15th UNOCAL Lecturer

By Jeffrey Cohlberg

The 1993-94 Unocal Lecturer was Dr. Jacqueline Barton of Caltech, an inorganic chemist known for her studies on metal probes of DNA.

Dr. Barton visited the department on April 6 and delivered two lectures. The first, "Travels Along the DNA Double Helix," presented at the level of a general audience, attracted a standing-room only crowd of mostly undergraduates. Dr. Barton gave an introduction to the various shapes DNA is capable of adopting. She then described the work of her lab in designing chiral cobalt complexes which specifically bind to particular forms of DNA or to particular sites in DNA with a complementary geometry.



Dr. Jacqueline Barton, UNOCAL Lecturer

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Chair's Report

Dear alumni and friends of the department:

On a positive note, and in a number of respects, our department has experienced a good year.

- We have continued to attract some of the very best students on campus as majors. Our graduates have been accepted into good graduate, medical, dental, and pharmacy schools and most others have found jobs in a difficult job market.

- This year the two college awards, conferred at Commencement, were both given to Biochemistry graduates; **Oren Beske** received the Outstanding Graduating Senior Award, sponsored by the Alumni Association, and **Kevin Merkes** was given the Khalil Salem Award for his scientific promise.

- **Dr. Nail Senozan**, a physical chemist, was awarded the University Outstanding Professor Award for 1993-94.

- A limited renovation of Peterson Hall 3 has been completed after long-term delays. This includes up-

grading fume hoods, ventilation, heating and hallway lighting. Much thanks goes to **Dr. Robert**

Loeschen of our department, who is half-time Associate Dean, for his constant supervision of this project.

- The Department has received \$100,500 in cash and in-kind gifts from alumni and businesses and industry in the area. This represents almost three times the state support for our operating and equipment budgets combined! Thanks go to the alumni and Advisory Council members for their loyalty and support.

The downward spiral of budget cuts has finally "bottomed out." We are to receive roughly the same funding in 1994-95 as for 1993-94. However, this will be in part at the expense of our students who are scheduled to pay approximately 10 percent more in fees than for last year. The table given below speaks for itself in terms of the changes which have occurred over the past five years.

It should be mentioned that only 10 percent of the operating expenses—expenses other than salaries, equipment and communications; i.e., laboratory and office supplies—required to keep our department operating come from the state. The balance, 90 percent, is derived from gifts to the department and the imposition of course fees which we now must charge students.

Under the leadership of our new President, Robert Maxson, who was a strong advocate for the sciences during his 10-year term as President at the University of Nevada, Las Vegas, we expect to see an increasing emphasis on the role and importance of the sciences at CSULB during the coming years.

Finally, please continue to communicate with us. We appreciate receiving the information and letters you send us and your visits to the department. The faculty and I are always happy to hear from you and to spend time with you when you come by. Best wishes to all of you!

— Ken Marsi

	<u>1988-89</u>	<u>1993-94</u>	<u>% Change</u>
Faculty Positions ^a	33.5	22.5	-33
Full-time Equivalent Students (FTES) ^{a,b}	550.2	452.7	-18
FTES/Faculty ^a	16.4	20.1	+23
Supported Graduate Students ^c	27	16	-41
Majors (Undergraduate) ^c	195	234	+20
Majors (Graduate) ^c	34	30	-12
Operating Funds (State) ^a	\$70,137	\$16,000	-77
Dollars/FTES ^a	\$127	\$35	-72
Equipment Funds (including lottery) ^a	\$80,714	\$20,000	-75
Private Funding ^a	\$22,287	\$100,499	+351
University Enrollment ^c	35,363	27,073	-23

^aAnnualized or for the year

^bFTES means *Full-time Equivalent Student*, and is determined by dividing by 15 the total units of chemistry courses enrolled in by students.

^cFor fall semesters.

A Word from the Dean

by Dr. James Jensen, Acting Dean, College of Natural Sciences and Mathematics

Change...this word has been used to the point of abuse in recent years. Nationally: we are re-inventing government, undertaking health care reform, etc. Corporately: we are downsizing, realigning, quality managing, etc. Thus, it is no surprise that CSULB is also changing. The Performing Arts Center, The Pyramid, a three-level parking structure and several renovations are either underway or just completed this year. The new University President, Dr. Robert Maxson, joined us this June from the University of Nevada, Las Vegas. With Dr. Karl Anatol as his provost, President Maxson is changing the way the university is organized, especially with regard to the more administrative functions.

The Sciences are also part of the change: We are scheduled to begin working with an architectural firm (NTD) on the planning and working drawings for a new science building this year. This will be a huge effort, as indicated by the \$1.2 million budget for producing the architectural drawings that will define the

project and be the basis of the construction bids scheduled for 1996 or so. Much of the Chemistry and Biochemistry Department will move into the new building, and the faculty and staff will work with NTD on the final planning of the project, which is being coordinated by Dr. Robert Loeschen who has a half-time Associate Dean assignment to assist us in getting—and keeping—our facilities functional. Following our move into the new building, PH3 and then PH2 will be thoroughly renovated in a project scheduled to begin around the year 2000.

Many reading this *Newsletter* will know students who were Microbiology, Marine Biology, Biology or Physiology majors. Those majors still exist, and are very healthy and active; however, they are now all part of a large and diverse Biological Sciences Department—much as the Chemistry and Biochemistry degree programs are part of this department. Biological Sciences now has a major program in Cellular and Molecular Biology. This program is building linkages to the other strong programs in the department (genetics, microbiology, physiology, marine

biology, etc.). The Biochemistry group, of course, is very much part of and affected by these changes, increasingly so as the curricular changes in Biological Sciences move from the lower division to the upper division level this year.

We started a new program, Student Access to Science (SAS), two years ago. The SAS faculty, staff and students coordinate outreach, recruitment and retention activities. This summer, over 300 students were involved in SAS programs, and about 60 were supported by summer research stipends. Last year, students in the college co-authored more than 100 research papers presented to professional societies.

And the change continues. Those of us who spend most days on campus are often blinded to it. If you have not been to campus in recent years, schedule a visit. Through your eyes we can see the changes more clearly, and you can not only renew old acquaintances, you can provide us with a valuable and fresh perspective.

Dr. Rudolph Marcus, Nobel Laureate, Visits Campus

Dr. Rudolph A. Marcus, awarded the 1992 Nobel Prize in Chemistry for his contributions to the theory of electron transfer reactions in chemical systems, delivered the 19th Annual Nobel Laureate Lecture titled, "Close to Reality," on Sept. 29, 1993. The following day he spoke on his electron transfer theory.

From 1956 to 1965, Professor Marcus developed his theory for what is perhaps the simplest chemical elementary process, the transfer of an electron between two molecules. No chemical bonds are broken in such a reaction, but changes take place in the molecular structure of the reacting molecules and their nearest neighbors. This molecular change enables the electrons to jump between molecules.

Photo by Bob Paz/Caltech



Nobel Laureate, Dr. Rudolph Marcus

His work in chemistry greatly stimulated experimental developments in chemistry. The Marcus theory describes, and makes predictions concerning, such widely differing phenomena as the fixation of light energy by green plants, photochemical production of fuel, corrosion, chemiluminescence, the conductivity of electrically conducting polymers and the methodology of electrochemical synthesis and analysis. Over the years he has garnered many scientific distinctions, including the Wolf Prize for Chemistry in 1984. Dr. Marcus is presently Professor of Chemistry at California Institute of Technology.

Endowed Awards

Robert B. Henderson Memorial Award

Two outstanding students, an undergraduate and a graduate student, were named Henderson Scholars, each receiving a cash award. This award was established by Dr. Henderson's family, colleagues and friends to honor the memory of Dr. Robert Henderson, a member of the Chemistry Department from 1955-1983, and a distinguished scientist and teacher. Recipients are chosen from among bachelor's and master's graduates as those best exemplifying Dr. Henderson's scholarship and commitment to the profession of chemistry.



Najat Khattar Aoun,
Robert B. Henderson Memorial Award

Najat Khattar Aoun

Najat received her MS in Chemistry at the 1994 Commencement. Her thesis work, carried out under the direction of Dr. Van Lieu, is titled, "The Application of Solid-Phase Extractions for the Analysis of Cr(III) and Cr(VI)." Ms. Aoun maintained a perfect record of "A" grades in all courses taken during her graduate career. She was honored at Commencement by being named to the Graduate Dean's List, an award limited to only one percent of the graduating master's students. She served as a popular and effective Teaching Associate for two years while pursuing the MS degree. Before coming to CSULB, Najat received her bachelor's degree from the Lebanese University in Beirut. She then taught chemistry at two French language academies in Beirut under the most harrowing of circumstances, with the civil war raging about her, constantly disrupting classes and daily threatening the safety of faculty and students. This fall she will study for her PhD at the University of Southern California, where she has received a research fellowship to investigate surface chemistry.



Oren Erich Beske,
Robert B. Henderson Memorial Award

Oren Erich Beske

Oren Beske simultaneously received two degrees at the 1994 Commencement ceremonies, one in Biochemistry and one in Zoology. During his undergraduate career Oren has acquired numerous honors for academic excellence. In 1992 he was named American Heart Association Summer Fellow and participated that summer in a research project at UC Irvine. Only 75 fellowships were awarded in California. In addition, in 1993 he also received an award from the department for his excellence in biochemistry, along with the Chemistry/Biochemistry Alumni Award and a Howard Hughes Scholarship. In 1994 he was voted by the faculty to receive the Rhodes Award as the outstanding Chemistry/Biochemistry Senior. Moreover, he was chosen by the CSULB Alumni Association to receive an award as the Outstanding Graduate of the College of Natural Sciences and Mathematics at Commencement. Oren also has been elected to membership in Phi Lambda Upsilon, the National Honorary Chemical Society; he was one of only 14 students elected to Phi Beta Kappa out of a graduating class of approximately 5,000 students. While an undergraduate, Oren has been a research assistant to Dr. Charles Gorenstein, a research scientist at the Veterans Hospital in Long Beach. His work has been in the area of neurobiochemistry and has resulted in publication in *Brain Research*, with Oren as the senior author. Oren will continue as a research assistant at the VA Hospital for the coming year and then will enter a PhD program in biochemistry.

David L. Scoggins Memorial Award

The Scoggins Memorial Award recognizes outstanding scholarship and promise by a Chemistry or Biochemistry graduate who intends to make a career of one of the health professions. This award is in memory of David L. Scoggins, who was a graduate student in the Chemistry Department at the time of his premature death. This year's awardees are Kevin Merkes and Kathy Wang, both 1994 BS Biochemistry graduates.

Kevin Merkes

Kevin, a 4.0 and much-honored student at CSULB, spent the summer of 1994 as a Howard Hughes Research Fellow involved in biochemical research in the laboratories of Dr. Margaret Merryfield. He is studying the effect of inorganic cobalt complexes as activators on branched-chain α -keto acid dehydrogenase. In 1993 Kevin was accorded an American Heart Association Fellowship, was elected to Phi Lambda Upsilon, the National Honorary Chemical Society, and received a Howard Hughes Award. He was also given the Hewlett-Packard Award for Excellence. His plans for the future include a career in medicine.

Kathy Wang

Kathy, a December 1993 graduate, worked as a research assistant with Dr. James Wu at the Long Beach Veterans Hospital and is presently a research scientist at In Vitro International, in Orange County. In 1993 she received a Howard Hughes Research Fellowship and was elected to Phi Lambda Upsilon, the National Honorary Chemical Society. She also was accorded the Hewlett-Packard Award for Excellence. Kathy plans to pursue a career in medicine.

The John H. Stern Memorial Award

Leticia Arellano-Summer

Leticia Arellano-Summer was named by the Physical Chemistry faculty to receive the Stern Memorial Award, which commemorates the life of Dr. John Stern, a physical chemistry professor in our department during the period 1958-1987. Leticia received a BA in Physical Science from UC Berkeley in 1987. Following graduation she taught chemistry and physical science at Jefferson High School in South Central Los Angeles for several years. Desiring to learn more chemistry, she entered the MS Chemistry program at CSULB where she is working with Dr. James Jensen on reaction mechanisms of Hg(II) catalyzed hydrolysis of *O,S*-acetals. Her work is funded by the Minority Biological Research Support Program. Leticia was elected to Phi Lambda Upsilon, National Honorary Chemistry Society, in 1993. In 1994 she also was given the Hewlett-Packard Award for Excellence.



Kevin Merkes,
David L. Scoggins Memorial Award



Kathy Wang,
David L. Scoggins Memorial Award



Leticia Arellano-Summer,
John H. Stern Memorial Award

Dr. Robert C. Maxson Appointed CSULB President

Dr. Robert C. Maxson assumed his duties as President of CSULB on June 1, 1994. Previous to this appointment, Dr. Maxson served as President of the University of Nevada, Las Vegas, a position he held from 1984-1994. In 1984, UNLV enrolled just over 10,000 students. Enrollment doubled to approximately 20,000 during his tenure there. Dr. Maxson has been an effective fundraiser. Last year UNLV received over \$22 million in private donations to enhance its educational mission.

During each of the past four years, UNLV has been recognized by *US News & World Report* as one of the "Up and Coming" universities in the nation; in the second year it was named #1 in the West in that category.

Before coming to UNLV, President Maxson served as the Senior Vice President for Academic Affairs at the University of Houston. In that capacity, he was the chief academic officer of the 45,000 student university system.

President Maxson earned his doctorate from Mississippi State University in 1970. That institution honored him as its Distinguished Alumnus in the spring of 1990. He has written two college textbooks which together have been adopted in approximately 100 universities. He also has written numerous articles which have been published in a wide variety of scholarly journals.

In 1986, President Maxson was named Man of the Year by *LV: The Magazine of Las Vegas*. He was also named Man of the Year by the National Conference of Christians and Jews in 1987 and by the American Jewish Committee in 1990. In 1989 he was awarded the prestigious Silver Lily Award by the Easter Seal Society for his humanitarian deeds. Currently, he serves on the Board of Directors of Bank of America Nevada.

President Maxson and his wife, Dr. Sylvia Parrish Maxson, have two children. Their son, Todd, is a physician at the University of Arkansas Medical School, and their daughter, Kimberly, is an attorney in Las Vegas.

Dr. Karl Anatol, Interim President for the past year, has returned to his former position as Provost and Senior Vice President for Academic Affairs.

Photo courtesy of UNLV



Dr. Robert Maxson

Dr. Jacqueline Barton

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The second lecture, a research seminar, was titled "DNA-mediated Electron Transfer: Is the DNA Double Helix a Wire?" The answer was decidedly "yes." Work from Dr. Barton's lab has shown that intercalation of ruthenium and rhodium complexes into DNA, at sites separated by at least as many as 14 base pairs, permits electron transfer between the two metals through the pi systems in the middle of the helix. Measurements of the rate of such electron transfer may prove to be sensitive monitors of subtle conformational changes in DNA.

Dr. Barton, a Columbia PhD, held positions at Bell Labs, Hunter College and Columbia University before coming to Caltech in 1989. She has received many prizes and honorary degrees, including the Waterman Award of the National Science Foundation, the Pure Chemistry, Eli Lilly, Bakeland and Garvan Awards of the American Chemical Society. She serves on the Board of Directors of the Dow Chemical Company and sees her role on the board as a way to underscore the importance of innovative research in the future of the company.

The department is grateful to Unocal for enabling us to hear Dr. Barton's superb lectures and for its ongoing support of this annual series, always a highlight of the academic year.

[Editor's Note: An interesting interview with Dr. Barton can be found in the February/March 1994 issue of *In Chemistry*, a publication of the American Chemical Society.]

Dr. Gene Kalbus Retires (Sort Of)

Taking advantage of the Faculty Early Retirement Program (FERP), Dr. Gene Kalbus has officially retired from his teaching position as Professor of Chemistry. However, under the provisions of the FERP program, he is permitted to return to teach half-time as an emeritus professor. Dr. Kalbus has elected to teach during the fall semesters only. The department is pleased that he will maintain this relationship, because he is highly regarded for his teaching excellence in analytical chemistry and entry-level chemistry classes such as Chem 111A (Freshman Chemistry) and Chem 200 (first-semester chemistry for nursing and home economics students, now Chem 201A).

Dr. Kalbus received his BS in Chemistry and a PhD in Analytical/Inorganic Chemistry from the University of Wisconsin. He immediately joined the Chemistry Department at CSULB (then known as Long Beach State College), where he has been a faculty member for the past 37 years. He is the author of nearly two dozen publications in the field of analytical chemistry, and has presented numerous papers at regional and national meetings of the American Chemical Society. Prior to his retirement, Dr. Kalbus had the distinction as the Chemistry faculty member with the longest service to the department.

In addition to his service as a superb teacher, Dr. Kalbus always willingly volunteered his help with committee work in the department and in the College of Natural Sciences and Mathematics. Especially noteworthy is his five-year term as Graduate Coordinator, his service on the Retention, Tenure and Promotion Committee, and his participation on Recruitment and Hiring Committees, and the Budget Committee.

Dr. Nail Senozan

Continued from page 1
ship, a curriculum development award, a Meritorious Performance and Professional Promise Award, an Exceptional Merit Award, and election to Phi Beta Kappa. His research has been supported by the American Heart Association and the National Science Foundation and has included such areas as the physical chemistry of metal ammoniates, and the chemistry of hemocyanin and hemoglobin.

Concerning his teaching, Dr. Senozan has said, "I try to teach with clarity and depth, to encourage a habit of thinking and understanding, and to develop skills in problem solving. I take pride in being a demanding instructor and in having high expectations of my students." He has developed a General Education course, "Blood Research: A Study in Landmark Discoveries," a popular course which quickly fills with students when offered.

His nomination for University Outstanding Professor was supported by scores of letters from colleagues and former and present students. The following quotations are from letters of former students:

"Under Dr. Senozan I had my first experience of the intellectual pleasure of basic research. I came to realize that, in my own small way, I was adding to the sum total of human knowledge. Dr. Senozan instilled in me the excitement of new discoveries, while at the same time teaching me the need for careful, methodical attention to good scientific, theoretical and experimental techniques." *Robert H. Frisbee, PhD, Technical Group Leader, Jet Propulsion Laboratory, Pasadena, Calif.*

"In the early 1970s Professor Senozan taught a course for nursing students and the introductory general chemistry course for science majors. My observations were that he loved to demonstrate. He would go out of his way to bring chemistry to life for his students in as dramatic a fashion as possible. I have 'stolen' and added to his list over the last 15 years and think this is a very important part of good instruction, seeing is believing." *John T. Landrum, PhD, Associate Professor of Chemistry, Florida International University, Miami, Fla.*

"I did some research in his laboratory during my senior year in college, and in that context he taught me the importance of a questioning mind and the concept of a controlled experiment. This way of thinking, how do you test an hypothesis, how do you know what is real and what is artifact, has applications far beyond the laboratory. This framework provided me with a healthy skepticism about hasty conclusions encountered in a range of situations, from conversations with friends to reports in the news." *Bette Korber, PhD, Los Alamos National Laboratory, Los Alamos, New Mexico.*

"Dr. Senozan has taught me much more than chemistry. He has taken a special interest in my education and has played an important role in my career. I also know that I am not the only student of his who has benefited from his caring advice. This, I believe, is what makes Dr. Senozan special for so many people." *Peter Ferrera, MD, Unterhaching, Germany.*

Student Affiliates of the American Chemical Society



Judith Ramillano, President, SAACS, waiting tables! Others (left to right): Peter Ferrara, MD; Dr. Nail Senozan; Dr. Edwin Harris; Dr. Ken Marsi

by Judith Ramillano, President 1994

SAACS enjoyed one of its most active years. We continue to serve as a catalyst between the faculty and students in the Chemistry and Biochemistry Department. It was especially exciting to have five undergraduates represent us at the American Chemical Society National Meeting in San Diego where they presented their research posters.

Professional Activities

SAACS sponsored or co-sponsored the following speakers and tours:

- **Dr. Mark Allen** from the Jet Propulsion Laboratory talked about the chemical composition of Jupiter's atmosphere.

- **Dr. Jacqueline Barton**, our Unocal Distinguished Visiting Lecturer, in addition to giving two lectures, under the sponsorship of UNOCAL, met with several students and discussed graduate school and her research. Members of SAACS were her hosts for lunch.

- **ARCO tour.** A group of SAACS members toured the ARCO refinery in Torrance. Employment opportuni-

ties were discussed. Each member attending was given a set of safety goggles. We would like to express our appreciation to Dr. John Kuebrich, director of laboratories at ARCO, for helping to arrange the tour.

• Forensics laboratory tour.

A group of students toured the forensics laboratory of the Orange County Sheriff's Department in Santa Ana. Discussions included fire arm analysis, glass fiber analysis and fingerprint identification.

- **Career seminars** were led by Dr. Margaret Merryfield (Chemistry/Biochemistry) on how to prepare for graduate school and the opportunities afforded by a higher degree, and by Dr. Henry Fung (Microbiology) and Dr. Leslie Wynston (Chemistry/Biochemistry) on the health professions.

Social Activities

- **Coffee-Donut Hour.** Continuing a tradition of many years, SAACS sponsored the weekly Friday morning gathering of faculty and students where opportunity was provided for informal discussion.

- **The Taco Feast**, another tradition dating back 20 years, was again well attended. Faculty and students donated canned goods, which were given to a homeless shelter, in exchange for an authentic Mexican meal prepared by SAACS officers.

- **The Annual Holiday Party**, attended by about 40 students and faculty, was held at Dr. Merryfield's house in December. Each person brought a favorite dessert which was entered in the Annual Dessert Contest.

- **The Spring Party**, held at Dr. Marsi's home in Dana Point, was a barbeque where the graduate students did the barbecuing.



Students at SAACS Spring Party (left to right): Kelvin Tjon, Eric Barron, Arnulfo Quesadada

• Annual Awards Banquet.

Each year SAACS sponsors this pizza luncheon. Fifteen students, designated by faculty vote, received awards for scholarship and service, and Dr. Roger Acey was given the Professor of the Year Award by the students.

The preceding events were paid for by proceeds from our annual Garb Sale. Members sold safety equipment (goggles, aprons, lab coats and gloves) and molecular model kits. We also sold T-shirts with chemical logos to students, faculty and alumni.

New officers for the 1994-95 year are: President, Judith Ramillano; Vice-President, Kyle Findly; Treasurer, Jennifer Roth; Secretary, Melanie Bretz; Activities Director, Gregory Gossage; Publicity, Jennifer Lee.

New Advisory Council Members

Five new persons, who reflect disparate scientific activities in the community, have been added to the Chemistry and Biochemistry Advisory Council. The Advisory Council consists of approximately 30 representatives from business and industry who assist the department with advice concerning curriculum, provide leads on employment for our students and help in the fund-raising activities of the department. The Advisory Council, as a group, meets twice yearly with faculty and student representatives in attendance. However, communication with individual members of the council occurs much more frequently as a result of joint projects with companies represented on the council.

Mr. Larry Copeland, an alumnus of our department, received his BS in Chemistry in 1967 and his MS in 1970 (with Dr. A. G. Tharp). He was a long-term employee of Pilot Chemical Company in Santa Fe Springs, a manufacturer of detergents. Five years ago he joined Rykoff-Sexton, Inc., as Technical Director of the Detergents Division. Rykoff-Sexton is one of the major restaurant suppliers in the United States. Larry is married to **Jan Schrick Copeland**, who received her BS in 1968 from our department. Jan is employed by US Borax.

Dr. Seymour Feuerstein represents The Aerospace Corporation on our Advisory Council. As Principal Director of the Mechanics and Materials Technology Center he has guided programs covering scientific and engineering disciplines in areas dealing with metals, polymers and ceramics and their composites, thin films, space and radiation environmental exposure, nondestructive evaluation and mechanical testing, microelectronics and electrooptical materials, surface spectroscopy, lubrication, laser spectroscopy, atomic physics, spacecraft contamination, batteries/electrochemistry and solar cells, infrared detectors, surveillance phenomenology and atmospheric chemistry. Dr. Feuerstein received a BS degree in Metallurgical Engineering from the U of Arizona and

his MS and PhD degrees in Metallurgy from UC Berkeley. He joined The Aerospace Corporation in 1961.

Dr. Richard Kanner, also an alumnus of this department, received his BS in Chemistry from UCLA in 1981, the MS in Chemistry (Dr. James Jensen) in 1983 from CSULB, and his PhD in 1989 from UCLA. His PhD thesis work was in the area of singlet oxygen chemistry, carried out in collaboration with Dr. Christopher Foote. He served as a post-doctoral associate at UCLA and at UC San Diego before accepting his present position as Analytical Chemistry Group Leader at Chiron Vision in Irvine. He is presently involved in research directed at combatting AIDS-related blindness (CMV retinitis).

Mr. Gary R. Keehner is Region Analytical Manager for Hewlett-Packard Co. with an office in Van Nuys. He is responsible for Analytical Instrument Sales and Service in the Western United States. Mr. Keehner is a BA graduate in Zoology from the University of Washington and also holds a BS degree in Chemistry from San Jose State University. Prior to joining Hewlett-Packard, where he has worked for 30 years, he was employed by Memorex Corp. and Dow Chemical Co. Mr. Keehner, together with Dennis Dingle, formerly with Hewlett-Packard, was responsible for a gift of gas-chromatograph/mass spectrometer to the department in 1991.

Mr. John T. Westland is President of Eastwater Scientific Products, Inc. (ESP), located in Rancho Santa Margarita. Although he attended CSULB, he transferred to USC where he received a Bachelor of Science in Business Administration in 1981. ESP was begun in 1988 as a scientific supply distribution company, with emphasis on selling products that are used in a cleanroom environment, a sterile aseptic environment, or a static sensitive manufacturing area. Previous to the founding of ESP, Mr. Westland was a territory sales manager for American Scientific Products/Baxter Scientific Products in Irvine, Calif., from 1983-88. He is a member of the Institute of Environmental Sciences and South Orange County Chamber of Commerce.



Dr. Seymour Feuerstein,
Aerospace Corporation



Gary R. Keehner,
Hewlett-Packard Co.



John T. Westland,
Eastwater Scientific Products, Inc.

Photo by Vien Q. Vo

Where Are They Now?

Our department has been fortunate in that we have had the services of so many persons who made important contributions to our department over the years, but who, for various reasons, chose to continue their careers elsewhere. Some of them are remembered in this column. We would like to hear from others as well.

Dr. Isidore "Izzy" Goodman, Lecturer 1981-84. Dr. Goodman is Associate Professor at Pierce College in Woodland Hills, Calif., where he became Co-Chair of the Chemistry Department in 1993.

Dr. Margaret "Peggy" Kline, Lecturer 1984-88. "I was Acting Department Chair, Santa Monica College, for the fall semester of 1993, an assignment which culminated in the Northridge Earthquake. Our science building was heavily damaged and is now somewhere between yellow- and red-tagged. I finished the winter session teaching lectures in the campus theater and doing labs at West Los Angeles College. We have replaced our science building with bungalows on what used to be our tennis courts. Our labs are finally up-and-running. We had to design modular labs in about an hour,

stripping the tennis courts to mark where the building would be placed, hiring part-time faculty members without the benefit of an office. We interviewed one candidate outside at a picnic table!"

Dr. Linda Marshall McGown, Assistant Professor 1979-83, is Professor of Chemistry and Director of Graduate Studies at Duke University. She was also appointed Research Professor in the Institute of Statistics and Decision Studies in 1991. Her research interests are currently in luminescence analysis, including fluorescence lifetime techniques, multi-dimensional data analysis and chemometric methods, organized media, circular dichroism techniques, spectral fingerprinting and chromatographic detection.



Dr. Linda McGown

Fran McLuen, Secretary 1975-92, after a two-year stint in the Department of Biological Sciences, has taken early retirement. Fran is well-known by generations of students as a cheerful and helpful member of the secretarial staff. Fran and her husband, Chuck, will continue to live in Rossmoor.

Dr. Tom Goynes, Lecturer 1986-88, had his tenure ceremony in September, 1993. Tom reports that he is helping his department at Valparaiso University in Indiana set up an Advisory Council patterned after that of the CSULB department.

Dr. Jon E. C. Hutchins, Lecturer 1974-76, is Professor of Chemistry at Buena Vista College in Storm Lake, Iowa. He recently returned from a six-month sabbatical at Oxford U, his alma mater, working with enzyme electrodes. He received an NSF grant in 1993 to help purchase the department's first NMR.

Dr. C. Grant Willson, Lecturer 1973-74, is Professor of Chemistry and Chemical Engineering at the University of Texas, Austin. "I have left IBM Research after many years there and have accepted a faculty position that is half-time in Chemistry and half-time in Chemical Engineering. The position includes an endowed chair. I am enjoying setting up new research laboratories, establishing a group of graduate students and post-docs, and teaching first-year organic chemistry again. I have fond memories of my time at CSULB and my friends among the faculty. It is always fun to read the *Newsletter* and learn about my former colleagues' many activities and successes."

Former Chemistry Students Testify at O. J. Simpson Hearing

Two former CSULB Chemistry students presented key testimony in the O. J. Simpson pre-trial hearing in July of this year. **Dennis Fung,** a criminalist with the Los Angeles Police Department, spent several hours on the stand on July 7 testifying concerning blood testing results. Dennis, a transfer student from Saddleback Community College, completed requirements for the BA degree in Chemistry in 1984.

Gregory Matheson testified the following day that three tests on a drop of blood found at the murder site were neither those of Nicole Simpson or Ronald Goldman and, based on blood typing, could have been Mr. Simpson's. Gregory, a supervising criminalist at the Los Angeles Police Department Crime Laboratory, graduated from CSULB in 1977 with a Bachelor's degree in Criminalistics. His chemistry courses were taken in our department.

In addition to graduates in the Los Angeles Police Crime Laboratory, alumni of our department also serve as criminalists in the Long Beach Police Department, the Orange County Sheriff's Office, the Los Angeles County Sheriff's Department, and the Washington State Patrol Crime Laboratory.

History of Tenure-Track Faculty

Compiled by Edwin Harris and Darwin Mayfield

The following lists all of the faculty who have been on the tenure track in the department since the first faculty member was hired in 1954. Shown are: the year appointed, name, the university where the highest degree was earned, and the final year of service. If only a date is given in the last column, that is the retirement year.

1954	Bartlett, J. Kenneth	Stanford	1956 to Southern Oregon State College
1955	Becker, Edwin N.	Wisconsin	1983
1955	Henderson, Robert B.	UCLA	1983 (deceased)
1956	Mayfield, Darwin L.	Wisconsin	1990
1956	Simonsen, Donald H.	Indiana	1980
1957	Kalbus, Gene E.	Wisconsin	1994
1957	Osborne, Clyde E.	UC Berkeley	1976
1957	Kierbow (Parker), Julie	Colorado	1978
1958	Goldish (Bowman), Dorothy	UC Berkeley	to present
1958	Stern, John H.	Washington	1984 (deceased)
1959	Bauer, Roger D.	Kansas State	1992
1959	Harris, Edwin R.	UC Berkeley	to present
1959	Odenheimer, Bertha G.	Hebrew U	1961 to industry
1959	Tharp, A.G.	Purdue	1987
1961	Marsi, Kenneth L.	Kansas	to present
1962	Beattie, Willard H.	Minnesota	1966 to Los Alamos
1964	Senozan, Nail	UC Berkeley	to present
1965	Freeman, Fillmore	Michigan State	1973 to UC Irvine
1965	Hunt, Richard	Chicago	1983 to Moorhead State U
1965	Perlgut, Louis E.	Rutgers	1982
1965	Wynston, Leslie K.	UCLA	to present
1966	Brooks, Leslie	UC Berkeley	1968 to CSU Sonoma
1966	Greenstadt, Melvin	USC	1969 to Fairfax HS, Beverly Hills
1966	Reeds, J. Nelson	Iowa State	1971 to Chem. Eng. CSULB; 1978 (deceased)
1967	Kuwahara, Stephen S.	Wisconsin	1971 to industry
1967	Lieu, Van T.	Hawaii	to present
1968	Baine, Peter	UC Santa Barbara	to present
1968	Hile, Lloyd R.	Princeton	1971 to Chem. Eng. CSULB
1968	Jensen, James L.	Washington	to present
1968	Po, Henry N.	UC Davis	to present
1969	Devore, Jerald A.	UC San Diego	to present
1969	Legg, Kenneth D.	MIT	1973 to industry
1969	Loeschen, Robert L.	Chicago	to present
1970	Schachter, Eugene M.	Pittsburgh	1975 to industry
1973	Berry, Arnold Jack	Ohio State	1992
1974	Wikholm, Ronald	UC Irvine	1978 to U Conn., Hartford
1975	Cohlberg, Jeffrey A.	UC Berkeley	to present
1975	Maricich, Tom J.	Yale	to present
1976	Dunne, Charles Patrick	Brandeis	1982 to industry
1979	Berryhill, Stuart R.	UC Berkeley	to present
1979	McGown (Marshall), Linda	Washington	1982 to Okla. State U (now at Duke U)
1983	Acey, Roger A.	Wayne State	to present
1984	Anjo, Dennis Mark	Arizona State	to present
1984	Merryfield, Margaret L.	Wisconsin	to present
1985	McDowell, Steven	Iowa State	1990 to So. Dak. School of Mines
1987	Lopez, Marco A.	UC San Diego	to present
1987	Nakayama, Kensaku	UCLA	to present
1988	Raine, Gwendolyn P.	UC Berkeley	1990 to Portland State U
1989	Schugart, Kimberly A.	Wisconsin	to present
1989	Shair, Fred	UC Berkeley	1993 to JPL

(Editor's Note: If information about your favorite professor is not included in this column, it's because, after entreaties by the editor, the faculty member did not submit material for the Newsletter.)

Roger Acey. Brent Harpham and Steve Parker have completed their MS degrees with me and have accepted positions with ICN and the Orange County Water District, respectively. Khai Tran also has



Dr. Roger Acey's Research Group. Left to right: Burt Secrest, Mike Mustillo, Khai Tran, Sylvia Nieto, Jennifer Brook, Michael Garamani, Sim Park, Stephen Espitia, Monty Badger, Lisa Hoegler. Not shown: Tom Kelly, John Cashman, Dr. Roger Acey

finished his research and will write his thesis this summer. Jennifer Brook reported her results at the recent ACS Undergraduate Research Conference at Occidental College. Steve Espitia and Tom Kelly are working diligently on their Master's research. New graduate students joining the laboratory this year include Bryan Laffitte, Burt Secrest and Monty Badger. Mark Lane, Tracy Allen, John Cashman, Lisa Hoegler and Sim Park are the new undergraduate students in my laboratory.

Sylvia Nieto, who holds an MS in Biology, has become a research associate in my group, evaluating the role of bacteria in metabolizing environmental pollutants.

I am extremely happy to report that Mike Mustillo, our resident "volunteer," has been awarded a Fellowship from the American Society for Cell Biology to spend the summer in my laboratory learning

new techniques in molecular biology. The ultimate goal is to incorporate these methodologies into the science curriculum at Whitney High School where he teaches. We are excited about establishing this partnership with Whitney and hope to expand the program to other institutions. A number of faculty and from the California State University system have also submitted a proposal to the NSF to fund a series of workshops designed to enhance the skills of CSU and Community College faculty in the newer biochemical techniques.

This year our research efforts have been supported by the following: NIH Area, NIH Minority Biological Research Support, Memorial Hospital Foundation, Chevron Oil Field Research Company and Harvey

Universal, Inc.

Dennis Anjo. The work of our graduate students continues: Keith Bogdon is researching the use of the carbon electrode as an HPLC detector; Eric Barron is studying the background current function at the carbon electrode; Su-Ying Lee is working on the development of staircase voltammetry with the carbon electrode; and Kiana Tabibzadeh is finishing her Master's thesis.

The undergraduate students also are busy. Kaiser Estrada is developing a quantitative relationship between pH and electrode activity; Byron Rivera is working on an activation method that does not require corrosive electrolyte; Nancy Wissa is determining the potential necessary for the oxidation of the carbon electrode matrix as a function of pH.

Among my past students, Krista Marantos is engaged in marine

biology research in the San Diego/ Coronado basin. Dr. Michael Kahr is a postdoctoral associate at the Los Alamos National Laboratories. Michael will become the godfather for Dr. Coleman Smith's soon-to-be-born child. Coleman is continuing as a postdoctoral associate at Los Alamos as well. His wife, Cathy, is also a PhD chemist.

The Anjo family is doing well. Elliot is soon to enter the fifth grade, and he is exceling at math and art. Elliot is also an established Godzilla-ophile!

Dr. Anjo was promoted to Full Professor during the 1993-94 academic year.

Peter Baine is still active with the American Chemical Society, serving as a counselor for the Southern California Section of the American Chemical Society.

Roger Bauer. My first year of "retirement" has been even busier than I had anticipated. Our grant from the National Institutes of Health titled, "Minority Access to Research Careers," was renewed for another five years. In addition, we expect to be funded for two different grants for outreach activities at both the community college and high school levels. It is nice to be able to pick and choose the projects to work on and to be able to work directly with students while being free of many of the administrative and imposed paperwork details.

Jeffrey Cohlberg. My NSF grant was renewed; in addition to salaries and supplies, it will pay for a new Mattson Genesis FTIR spectrometer. This will be used for studies of protein secondary structure and will be available to other chemists in the department. My research on neurofilaments continues, including a new collaboration with biochemists at Johns Hopkins examining the assembly properties of truncated and chimeric neurofilament proteins produced by recombinant DNA techniques. The group includes graduate students Alireza Ansari, Vazrick Navasartian and Abbas Razaghi, and undergraduates Tan Tran, Teresa Streifel, Dan Haley and Paul Darby.

Dorothy Goldsh. I have been elected for the third consecutive year as chair of the Academic Senate. As Senate chair, I've been involved with others to establish committees on particular issues. The commission on graduation rates has made a number of recommendations. A committee on the undergraduate experience is charged with making recommendations about improving the coherence of the General Education program, seeking ways to improve advising and trying to develop a statement of the skills every graduate should possess. Dr. Margaret Merryfield is chair of the committee wrestling with this challenging task. I also had the privilege of serving on the search committee for the new president.

Tom Gufrey. This past October, 1993, I gave a presentation at the ACS conference in Pasadena titled, "A light-hearted approach to General Education Chemistry—managing the knowledge explosion with horrible humor, ridiculous rhymes, musical madness and explosions." The ACS is still trying to recover from that one! My wife, Charlene, continues to bake delicious chocolate chip cookies for all my Chemistry 100 students on the first day of class! They can't say they never got anything out of this class!

Reef Hardy. Dr. Hardy is a new part-time faculty member. "Although I am originally from Hawaii, I have spent much of my time in the Continental United States. I graduated with my BS in Chemistry from Creighton U in Omaha, Neb. I completed my PhD in Biological Chemistry from Caltech, where I studied molecular virology. Subsequently, I was a postdoctoral associate for three years at UC Irvine, where I continued to study the regulation of viral gene expression. While I am a newcomer to the department, I am quite impressed with the level of cooperation between faculty and the degree of personal interaction between faculty and students."

James Jensen. See "A Word from the Dean," elsewhere in this *Newsletter*.

Gene E. Kalbus. Dr. Van Lieu and I have developed and written an experiment titled, "Determination of Basic Compounds in Household Cleaners by Potentiometric Titration," which will be included in McGraw-Hill's newly conceived LabBase Collection. LabBase consists of a wide variety of completely tested and detailed experiments from which an instructor can select experiments of interest to tailor-make a laboratory book for a specific course.

Van T. Lieu. I have a paper, "An Efficient and Inexpensive Device for Measurement of Gas Volume," in *J. Chem. Educ.* in 1993. Gene Kalbus and I also coauthored a paper, "Determination of Basic Compounds in Household Cleaners by Potentiometric Titration," in LabBase PRIMIS, McGraw-Hill, Inc.

Marco Lopez. Alec Greer finished his thesis titled, "Autooxidation of Tetraphenylporphyrin," last summer before going to Thailand with the Peace Corps for a few months. He is working on his PhD in Chemistry at the University of Wyoming. Juan Noveron, a former undergraduate research student of mine, is a PhD student in Chemistry at UC Santa Cruz.

New to the "heme team" this year is John Escobar, who is learning the kinetics methodology from Cynthia Ybarra. Martha De la Rosa, from Zacatecas, Mexico, is inserting iron into some 10-15 porphyrins. Her MS project is to study their spectroscopic and kinetic properties. Although Joey Vanoni is not new, he has been working hard to finish his project.

This year I have been on sabbatical with David Case at The Scripps Research Institute in La Jolla using Density Functional calculations to study Myoglobin models. I did not want to uproot my family during the year and so during August-December, I spent weekdays in San Diego and saw my family on the weekends. I missed seeing Carmen, Jason and Jessica and so, beginning Jan. 1, I commuted for the remainder of my sabbatical.

In November, Cynthia Ybarra, Sherry Smith and I attended the

1993 Minority Programs Symposium in Atlanta, Ga. Cynthia and Sherry presented posters of their work. While there we visited the Centers for Disease Control. In January, I reviewed for the National Science Foundation applications made to the Instrumentation and Laboratory Improvement program. In February, I was invited to visit with, and present a seminar to, the Department of Chemistry at UC Riverside. In March, Cynthia Ybarra and I attended the 1994 meeting of the Society for the Advancement of Chicanos and Native Americans in Science (SACNAS). Cynthia presented some of her work at the poster presentation and I gave a talk on some of her earlier work, which was accepted for publication. I reviewed for the National Institutes of Health applications made to the Minority Biomedical Research Support (MBRS) program in May.

Plans for the summer include attending my first Gordon Conference (on Oxygen Binding Proteins), attending the fall ACS meeting (Washington, D.C.), preparing for classes this fall and moving my family from Temple City to Victorville.

Dr. Lopez was promoted to Associate Professor during the 1993-94 academic year.

Tom Maricich. Slowly but surely my research project is showing progress. Pure, dry chemicals seem to work wonders! Thanks go to several students who have assisted me during the past year: Ali Borazjani, Rob Johnson and Trang Ta. Trang begins optometry school and Rob starts medical college in the fall. Anthony Medak begins work in my lab this summer as a Howard Hughes Medical Institute Scholar.

After success in reclaiming our one-pot synthesis of sulfonimidate esters, we will start exploiting their alkylation reactions with various acids and nucleophiles.

Ken Marsi continues as department chair. At the 1994 Commencement he received "Most Valuable Professor Award." This award is given to a faculty member designat-

continued

ed as being most influential in the undergraduate career of the Outstanding Graduate of the College of Natural Sciences and Mathematics, who, this year, was Oren Beske, a Biochemistry major.

Margaret Merryfield. New faces in the lab this year are Cedrina Serrano, a nutrition graduate student, John Yeung, a biochemistry graduate student, and undergraduates Jennifer Lee, Dao Lim, Hoa Trinh and Jerry Henry. Dao and Jerry are both Howard Hughes Fellows. Graduating are Aneisa Young, Harrison Chang and Kevin Merkes. Martin Rocha is headed for a postbaccalaureate program at Creighton. Judith Ramillano will finish in December while staying busy as SAACS president.

I again had the privilege of working with an NSF Young Scholar, Samantha Howarth of St. Joseph High School. Samantha gave a great talk on her work at the Southern California Academy of Sciences meeting in May and will give another at the National Junior Academy of Sciences meeting in Atlanta next year.

I ate, slept and breathed Chemistry 443 (Biochemistry Laboratory), between teaching it both semesters and working with Drs. Acey and Cohlberg preparing the manual for worldwide publication. Since December I have been chairing a university task force on undergraduate education that is examining general education, advising and student skills. I was also drafted into being the president of the CSULB Sigma Xi club; one fringe benefit was attending a national forum on science education where we got a glimpse of what is coming in terms of national standards. My most recent trip was to attend a workshop on DNA fingerprinting at Boston University. The system we learned is excellent for looking at relationships among people or animals when adequate tissue is available, but not as useful in most forensic applications.

Kensaku Nakayama. We will introduce a new organic lab curriculum in the fall of 1994. The significance of the new curriculum is the

third semester of laboratory work, in which chemistry and biochemistry majors will conduct some advanced experiments. These experiments will be modularized such that small groups of students will carry out different experiments. This should alleviate the long waiting time between instruments. Students will be expected to do some hands-on work on the Hewlett-Packard GC/MS as well as carrying out analysis of spectroscopic data from spectra generated by our 400 MHz Bruker NMR spectrometer.

Henry Po. Several new experiments which I have been working on last year are fully incorporated into the second-semester general chemistry laboratory. The students now have the opportunity to work with digital pH meters, measure electrochemical cell potentials and use modern spectrophotometers and Macintosh computers.

Ken Huang and Shu Shen presented their research at the ACS National Meeting in San Diego in March. Shu returned to Taiwan and is very busy traveling all over Southeast Asia on business trips. Davide Tenaglia is continuing his research on copper macrocycles, while Ken is finishing up his research in reaction kinetics involving complexes of iridium(IV) and iron(III). Three undergraduate students, Maria Castaneda, Silverio Arano and Thach Ho, have just joined my research group.

In 1993 we published two papers, "Ab Initio Molecular Orbital Calculations for 3,6-Dihydro-1,2-dithiin and 3,6-Dihydro-1,2-dioxin," and "Structure of *rac*-5,5,7,12,12,14-hexamethyl-1,4,8,11-tetraazacyclotetradecane-silver(II) Diperchlorate." The first paper is from my sabbatical work with Professor Hehre at UC Irvine, and the second paper is from a section of Shu Shen's thesis.

Kimberly Schugart. Dr. Schugart received tenure and was promoted to Associate Professor during the 1993-94 academic year. She published two papers, "Structure and vibrational frequencies of the peroxymonosulfate ion HSO_5^- ," *J.*

Molecular Structure (Theochem), **304**, 13 (1994), and "Structures and relative stabilities of bisulfite ion somers," *ibid*, **304**, 1 (1994). Both papers were coauthored by James Noblet (MS 1991), her Master's student.

Nail Senozan. In collaboration with Dr. Devore, I continue working on the theoretical aspects of carbon monoxide binding to hemoglobin. Our objective is to develop a mathematical model that can predict the effect of carbon monoxide on oxygen transport in a variety of environments. Tuan Nguyen, a graduate student, is involved in one part of this work—searching for the conditions under which carbon monoxide may actually enhance oxygen transport by hemoglobin.

Along other lines of work, Thang Dinh, a senior majoring in chemistry, is studying the role of ferrous, ferric and cupric ions in hemoglobin oxidation. An article written with Erica Burton (BS 1993, Marine Biology) and titled, "Hemoglobin as a Remarkable Molecular Pump," appeared in the April issue of *J. Chem. Educ.*

Leslie Wynston. I have been very much involved with the planning and implementation of two new courses in our department. Chemistry 201A and Chemistry 201B are a condensed version of the former Chemistry 200 and 300, which they now replace. Most of the students in these classes are pre-nursing, and we're proud that we are one of the few campuses which include biochemistry in the nursing curriculum. I'm still continuing to teach wine classes for the Home Economics Department, but in a more abbreviated format than before. These classes are run through University Extension. Clinical Chemistry has seen a large upturn in enrollment, and I'm now teaching that course every semester. I'm also working on a CSULB study tour, "Castles and Palaces," to Germany and Austria in the early summer of 1995.

Staff News

Burt Codispoti, Instructional Support Technician, will temporarily assume Joyce Kunishima's duties while she is absent on maternity leave. During the past year Burt and Laura Patterson were married.



Judy Ferraro (left), and Fran McLuen

Judy Ferraro, Secretary. "It is with great fondness that I say farewell to the department. It has been my family for the last five years, and I shall cherish all the wonderful friendships I have generated. But, alas, my family on the East Coast is calling me back. So I return home to Massachusetts, taking with me a life-time of beautiful memories!"

Ray Grace, Instructional Support Technician, is the newest Stockroom employee. Ray received his BS in Chemistry in 1991 from UC Irvine. While at UC Irvine he was employed as Laboratory Assistant. Following graduation, he joined Truesdail Laboratories, where he worked as a gas chromatograph analyst, performing various EPA methods of analysis for pesticides, PCBs, herbicides, and as an HPLC operator. His immediate supervisor there was **Joe Bramblett (MS Chemistry, 1972)**. The technical director at Truesdail is **Dr. Norman Hester (BS Chemistry, 1968; MS 1971)**. Ray replaces **Anne Nguyen (BA 1968)**, who resigned her position to spend more time with her family.

Joyce Kunishima, Director of Laboratories. Joyce and her husband, Dennis, became parents of their second child, Craig, on August 13. Their daughter, Cheryl, now 8 years old, is looking forward to being a big sister. Joyce is on a four-month maternity leave.

Jeannette Santage, Department Secretary. "I was honored this past June at a university service award reception honoring long-term employees; it was 15 years for me!"

Bob Soukup, Electronics Technician, continues his valued work maintaining our large equipment inventory, which includes a 400 MHz Bruker NMR. His assistance with our computer operations and fume hood oversight is also much appreciated.

Current Activities of Some of Our 1993-1994 Graduates

Najat K. Aoun, MS Chem; PhD program, USC

Christian Balarie, BS Biochem; Dental school, Northwestern U

Nina C. Bao, MS Chem; Research Assistant, CSULB

Oren Beske, BS Biochem; Veterans Administration Hospital

Keith Bogdon, BS Chem; MS program, CSULB

Juan Campos, BS Biochem; Procter and Gamble

Melanie R. Concepcion, MS Chem; Pace, Inc.

Dawn Conley, BS Chem; Orange Coast Analytical

Joanne Dao, BS Biochem; Pharmacy School, Drake U

Steven J. Dell, BS Chem; PhD program, Princeton U

Rabiha El Habbal, BS Biochem; Integrated Genetics Laboratories

Danny Fong, BS Biochem; BaChem California

Akram Ghamssari, BS Chem; ADM Envirotech Laboratories

Alexander Greer, MS Chem; PhD program, U of Wyoming

Brenton G. Harpham, BS Biochem; ICN Biomedicals

Sean Monaco, BA Chem; Memorial Hospital, Long Beach

Joyce A. Miyagishima, BA Chem; MS program, Civil Engineering

Mark Murray, BS Biochem; BaChem California

Derrick M. Myers, BS Biochem; Medical school, Howard U

Brigitte Nguyen, BS Biochem; Pharmacy school, UC San Francisco

Juan Noveron, BA Chem; PhD program, UC Santa Cruz

Roya Pouryavari, BS Chem; Dental school, Boston U

Shu-Chin Shen, MS Chem; Taipei, Taiwan

Robert D. Smith, BA Chem; DEC Computers, Warrington, England

Jon B. Spencer, BS Chem; Flavurence Corp.

Julie Szajjal, BA Chem; UCLA Olympic Laboratory

Kathy Wang, BS Biochem; In Vitro International

Stephen Westerhout, BA Chem; Medical school, Loma Linda U

Said Zamani-kord, MS Chem; PhD program, UC Davis

Philip Zlaket, BS Biochem; UNOCAL

We enjoy hearing from you! The information which you send us about your careers is often shared with students who are considering careers in chemistry, biochemistry, medicine, dentistry, pharmacy, law, etc. We have an Alumni Bulletin Board where communications from alumni are posted for faculty to read, and they are read with great interest! All degrees noted are in Chemistry unless otherwise specified. Alumni having both bachelor's and master's degrees from our department are listed under the year they received their bachelor's degree. CSULB degrees are in bold type.

1956

Alan Cunningham, BA (MA Chemistry, Stanford; PhD Chemical Ecology, UC Santa Cruz), has retired as professor of Chemistry and Chairman of Physical Sciences, Monterey Peninsula College. He is currently part-time director of the Environmental Health and Safety Office for Monterey Peninsula College.

1961

Leo R. Best, Graduate Student, has retired as Professor of Chemistry at Mount San Antonio College. He is the author of a well known text and laboratory manuals for courses in introductory chemistry. He is pursuing his hobbies of gardening, birding, genealogy and travel. He and Louise, whom he met in a biochemistry class at Kansas State University in 1941, celebrated their golden anniversary in August of this year.

Terrence C. Van Buskirk, BS, is Senior Technical Sales Representative for Akzo Chemicals, Inc., where he has completed 14 years. "Our business unit handles fatty amine products. I have responsibility for the Western Region (14 states)."

1962

Richard C. Parker, BS (PhD, U of Washington), is Associate Dean of Engineering, New Jersey Institute

of Technology. "I have been at NJIT for 27 years now. My daughter, Melissa, is in the Master of Social Work program at the U of Pennsylvania. Son, Chris, is a freshman at St. Michael's College in Colchester, Vt. I was recently honored as Eminent Engineer in Tau Beta Pi (National Engineering Honorary Society)."

1964

Beverly J. Garrigues, BS (MA, National University), operates her own practice in Temecula, Calif. Her daughter, Trisha, also a CSULB alumnus, is training as an instructor for horsemanship with the handicapped. Son Jonathan is a junior at Westmont College in Santa Barbara. Her husband, Bill, also a CSULB alumnus, continues as a Senior Scientist at Hughes Aircraft in Carlsbad.

1966

Roger Clark, BS, MS 1966 (PhD, U of Utah), works with Ato Chemical, North America, a French-based company. "Our twin sons, Bill and Jim, both engineering majors, are in their second year of college."

Larry Copeland, BS, MS 1968, is Technical Director for Rykoff-Sexton, a company specializing in restaurant supplies and cleaning products. Larry recently joined the CSULB Chemistry and Biochemistry Advisory Council. **Jan, BS 1968**, continues as a chemist with U. S. Borax. They have two children.

John Leeb, BS, MS 1972, continues as Chief Chemist with the Naval Weapons Station in Seal Beach, Calif.

W. A. (Bill) Thomasson, MS (PhD, Caltech), is a free-lance science/medical writer. **Penny Heine Thomasson, BS CSULB**, continues to work as a chemist at Evron Industries, a small contract manufacturer of personal care products. Bill and Penny live in the Chicago area.

1967

David R. Fagerburg, BS (PhD, U of Washington), is Research Associate in polymer chemistry with Eastman Chemicals Division of Eastman Kodak Company in Kingsport, Tenn.

Robert Jordan, BS, MBA, is Laboratory Manager with the Santa Margarita Water District in Orange County.

William Lake, BS, MS 1969 (PhD, Purdue U), has retired from Baxter Healthcare Corp. and has become the owner of a Mail Boxes Etc. franchise in Redlands, Calif. Bill continues as a member of the CSULB Chemistry and Biochemistry Advisory Council.

Alan J. Senzel, BS (PhD, UCLA), is a consultant in agricultural and pharmaceutical chemistry. Alan took early retirement from Ciba-Geigy Corp. in May 1993. As a consultant he specializes in technical editing and writing associated with EPA and FDA registration packages. His clients include Ciba Plant Protection; Glaxo Pharmaceuticals; Stewart Pesticide Registration Co., Inc.; Spray Drift Task Force; American Agricultural Services, Inc.; etc. Son, Richard (Duke 1992, AB Political Science), is currently in Duke University's Public Policy Institute and will enroll in an MS program in Urban Planning this fall at U of North Carolina-Chapel Hill. Daughter, Lisa (Washington U 1994, Biology), will enter the MD-PhD program this fall at Albert Einstein Medical College. Phyllis, his wife, is Child Support Enforcement Supervisor for Wake County, N.C.

1968

Alan DiStefano, BS, is President of Graseby-Nutech Research in Triangle Park, N.C., an environmentally based company designing and manufacturing sampling and analytical instrumentation for use in air pollution testing. "My wife and I have relocated from Reno, Nev. to Raleigh."

Donald J. Ferm, BS, is Senior Research Chemist with Dial Corp., in

Valencia, Calif. "I am involved in process and product development for the FIREBRAKE line of zinc borates utilized as flame retardant additives in the plastics industry."

Timothy J. McGauley, BS (MS, CSU Northridge), is Project Development Chemist at the Pine Bluff, Ark., U. S. Army Arsenal. He is currently under consideration by the United Nations to be a chemical weapons treaty inspector.

Edward W. Paull, MS, recently passed away. Ed was a research student of Dr. Fillmore Freeman, now Professor of Chemistry at UC Irvine. His thesis work, titled "Permanganate Oxidation of Furfurals," appears in *J. Org. Chem.*, **35**, 982 (1970). He demonstrated that, in basic solution, oxidation of furfural is first order in $KMnO_4$, first order in OH^- and first order in furfural. Oxidation is also accompanied by a kinetic isotope effect, $k_H/k_D = 1.7$, and the rate is accelerated by electronegative substituents on the furfural ring.

Gloria K. (Leonard) Shelton, BS. "I am happily transplanted to Washington State and celebrated 15 years with Calgon, selling proprietary chemicals for industrial boiler and cooling water treatment to the refinery and pulp and paper markets. The only "real" chemistry I do is tutoring my husband, Ken, who has returned to college. I continue to be an avid home sewer and have won ribbons in all the local fairs. I also teach low impact aerobics once a week and continue to study Aikido (a Japanese martial art) and Iaido (traditional Japanese sword)."

1969

Reid Bowman, BS (MS, Princeton; PhD, UC Santa Barbara), reports that his daughter, Jessica, is appearing in the TV series, "The Road Home," airing on CBS. Reid is Group Leader in agricultural chemicals at Dow Chemical USA in Pittsburg, Calif.

1970

Bill Hulbrock, BS, MS, is Product Manager for ICN Biomedicals in Costa Mesa.

1972

Leon Lazarus, MS, is Environmental Scientist with the U.S. Environmental Protection Agency in Edison, N.J. "In May, 1993, I co-authored the Technical Assistance Document for Complying with the TC Rule and Implementing TCLP." Leon lives in Princeton Junction, N.J.

1973

Elliott Berkihiser, BA, is Corporate Environmental Affairs Manager for The Boeing Company in Seattle, Wash. "Much of my work involves the economics of pollution prevention. The materials and processes used in aerospace manufacturing are very interesting, and there is a big challenge in making them environmentally 'friendly.'"

Art Brown, BA, is on leave from Marina High School, Huntington Beach, to teach science with DODDS in Germany. "I am tempted to stay with DODDS...no crime, small classes, big budgets." While in Germany, Art, Luann and children, Ashley and Adam, have traveled extensively.

Daniel S. Soykin, BS, passed away in 1993.

1974

John Henthorn, BA, is a Captain with Continental Airlines, flying Boeing 737's, and lives in Kingston, Wash. "I am married to an Alaskan girl with two step kids; the oldest is ready to start college. I have spent 30 years going to schools in aviation and burning hydrocarbons. In a way that's part of chemistry. I still read articles in chemistry, but I've turned into a dinosaur in the field. I think of my time in the department and found it to be rewarding and pleasant."

Stuart Nowinski, BS, MS **1987**, is Assistant Professor of Chemistry at Glendale Community College.

1975

Robert A. Welch, BS (MS Petroleum Engineering, USC), is Senior Staff Engineer for the National

Institute for Petroleum and Energy Research in Bartlesville, Okla.

1976

David Kanne, MS (PhD, UC Berkeley), is a research chemist for Zeneca Ag Products in Richmond, Calif. "The chemistry is quite interesting and hopefully a commercial product from my work is right around the corner." Zeneca is the bio-sciences offshoot of ICI. Recently, an agrochemicals plant and a pharmaceutical consulting venture have been set up in China by Zeneca (cf. *C&E News*, July 4, 1994, p. 11).

1977

Tom Augimeri, MS Student.

"I am still a tax analyst, but now I write the program and provide customer support. I'm also in the MBA program at CSULB, with an option in Information Systems and will graduate in December, 1994."

Ray Calloway, BS, has retired from The Aerospace Corporation, and among other activities, is learning to play the piano. Ray is an emeritus member of the CSULB Chemistry and Biochemistry Advisory Council.

David Oliver, BS, MS 1979, is Professor of Chemistry at Ventura College. "I will be on leave from teaching for two years starting the fall of 1994. I will be in a PhD program at UC Santa Barbara which emphasizes Educational Psychology/Science."

Craig T. Snider, MS (MD, UC Davis), is an ophthalmologist finishing his residency at Parkland Memorial Hospital, Dallas, Texas. When his residency is completed, he and his family will move to Naples, Fla., to work for the Montgomery Eye Center. He and Joy have four children: Julie 11, Christi 10, Tiffany 8, and David 5.

Sandra Stoner Wright, MS.

"I'm married and have three elementary school-age children. My family and volunteer work in the community and local schools absorb my life."

1978

Luis A. Lomeli, BA (MD, UCLA), has published a book, "An Innovative and Modern Guide to Our Health Care System and More..." Anyone interested in purchasing a copy may write to Dr. Lomeli at 9113 Foothill Blvd., #210, Rancho Cucamonga, Calif. 91730 [(909) 945-3565]. A new procedure in treating inflammation, developed by Dr. Lomeli, has been published in the July 1993 issue of *Emergency Medicine*. He is currently writing another book designed to educate the consumer of health services.



Luis Lomeli and family

Marianne Marsi, BS (PhD, UCLA), is Technology Supervisor for Teflon Polymer Technology Development in Washington Works, Washington, W.V. She is responsible for process and product development for two product lines in Teflon. Her husband, Dr. Lewis Manring, has a comparable position in Nylon at Washington Works. They have two children, Teresa, 6, and Gregory, 2 1/2, and live in Parkersburg, W.V.

Melanie Grady Patterson, BA, is Engineering Technical Specialist in quality assurance with the Northrop B2 Division in Pico Rivera. "I've been a lab chemist with Northrop for nine years." She and husband, Rod, a pharmacist, have four children, three girls and one boy, ages 10, 9, 2 and 1.

Gerald Wuenschell, BS (PhD, USC), is Scientist/Synthetic Chemist for Unisyn Technologies in Tustin, Calif., developing products for protein separations and immobilization.

1979

Delyse R. Buus, BA (MD, UCLA), practices ophthalmic plastic and reconstructive surgery with the Permanente Medical Group in Oakland, Calif.

Stephen Castellino, BS (PhD, UC Riverside), is a research chemist in the Agricultural Chemicals Division of Rhone-Poulenc and lives in Cary, N.C.

Stephen Fritch, MS, MPA 1992, is Lead Criminalist with the Long Beach Police Department. He reports that he is busy with increasing demands for drug analysis. They plan a vacation to Cape May, N.J., late this summer.

Steve Jones, MS (PhD, UC Riverside), is owner and manager of Jones Environmental located in Fullerton, Calif.

Robert Malden, MS, is owner of Killdee Scientific Glass Co. in Santa Fe Springs, Calif., where he and his group moved into a new facility last year, tripling floor space. Latest projects range from custom glass fixtures for Toon Town at Disneyland to glass apparatus for the space shuttle.

Patrick McKay, MS, is Senior Research Associate with Genentech, Inc., in South San Francisco where he has worked for the past 14 years. "I'm still working in Recovery Sciences and am currently collaborating with another group on the purification of Nerve Growth Factor. The protein has some interesting features; namely, its very basic composition, its tendency to be clipped at the C-terminus, and its formation of non-covalent homo- and heterodimers. I'll be getting an intern this summer as part of Genentech's summer intern program." The McKays have two children, Brian, 9, and Allison, 5. Their German shepherd, Prince, in dog years, is 98!

Tony McLaughlin, BA (DDS, U of Washington), just celebrated his 10th year in dentistry by vacationing in Jamaica. Tony lives in Redmond, Wash.

1980

Robert K. Blair, MS. "I have

been employed at BioResearch, Inc., for 14 years as an organic chemist in research related to medical applications. Recently, our research has been on urethane-protected N-carboxyanhydrides which are activated amino acids for the synthesis of peptides."

Victor V. Cachia, BA (DPM, California College of Podiatric Medicine), is a Diplomate, American Board of Podiatric Surgery, and has his own practice in Mission Viejo and Irvine and lives in San Juan Capistrano.



Victor V. Cachia

He specializes in deformities in infants, children and adults and does volunteer work with the Crippled Children Project in Baja, Mexico and Guatemala. In August, 1993, he was named recipient of a meritorious service award from the American Podiatric Medical Association.

Brian Dubow, BS, is Director of NASA contracts for the UC San Diego Medical School. He directs seven NASA contracts to conduct pulmonary physiology research in microgravity on the space shuttle. He also directed the San Diego experiment that recently flew on STS-57, Endeavor, an experiment designed and built by UC San Diego and San Diego State students.

Les Henderson, BS (PhD, Louisiana State U), received his doctorate in organic chemistry in 1988, was a postdoctoral student with Dr. Andrew Maverick at LSU and then took a position with the Naval Research Laboratories in Washington, D.C., in polymer chemistry. The Hendersons have two children, a son, 14, and a daughter, 8.

Tina Kishishita, BA (PharmD, UC San Francisco), is employed as a pharmacist at the Veterans Administration Medical Center in Long Beach.

K. Scott Marsi, BA (MS, San Diego State U), has been appointed product manager of nitrogen chemistries for Rhone-Poulenc's Surfactants and Specialties Division. He and his wife, Linda, and daughters, Aiko, 8, and Kimiko, 3, live in West Windsor, N.J.

Sharareh Moaddeli, BS, MS 1984, is a staff engineer in charge of waste management for Southern California Gas Co., and lives in Redondo Beach.

Kirk M. Morgan, BA (MD, Case Western Reserve), is a retinal surgeon and Director of Retina-Vitreous Surgery at Park Nicollet Medical Center in Minneapolis, Minn. The Morgans have a son, David, 3 1/2. Dr. Morgan presented a paper at the Ninth World's AIDS Conference in Berlin on CMV retinitis.

Ba Thu Nghiem, BS (PhD, U of Kansas). "After receiving my PhD in 1984, I remained at Kansas University in Pharmaceutical Chemistry as a Research Associate for Dr. T. Higuchi until 1986. In 1987 I accepted a research and development position with Solvay in Iowa City. From 1990 to the present I have been with Fort Dodge Laboratories, a division of American Home Products Corporation, as a Senior Development Pharmacist."

Brett Sharenow, BA (MBA, San Jose State U), is a self-employed management consultant and lives in San Francisco.

1981

Tom Harmon, BA (MA Chemistry, USC; MD, U Pittsburgh), is a surgeon with the Thomas-Davis Medical Centers in Tucson, Ariz. He and his wife, Beth, have a son, Tyler, and a new daughter, Casey.

Jack E. Long, BA (MD, U of Cincinnati), is an endocrinologist for Hudson's Bay Medical Group in Vancouver, Wash. "I live in the beautiful and green Pacific Northwest. My wife, Emily, and I have rounded out our family with Minna, 7, Maggie, 3, and Robert, 1 1/2. I enjoy endocrinology, catching salmon and watching Los Angeles shake."

Larry Manes, BA (PhD, UC Santa Cruz), works for Gilead Chemical Co. in Foster City, Calif., and is involved in developing analytical methods and in anti-viral drug research.

1983

John R. Berg, BS (MS Civil Engineering, Loyola Marymount U), is Environmental Associate II with the Los Angeles Bureau of Engineering.

Melissa Peter Loughney, BA (MD Loyola U), is an endocrinologist at DeWitt Army Hospital in Fort Belvoir, Va. "I recently completed fellowship training at Walter Reed Army Medical Center and now am Director of the Cholesterol Clinic at DeWitt Hospital. Tom Loughney and I married in August 1992, and we have a son, Tommy, born March 1994."

Armando Samaniego, BA (MD, Harvard U), works in Oakland as an Emergency Room Physician. He and his wife, Lisett, have recently become parents.

1984

Kathy Allen, BS, and her husband have relocated to South Bend, Ind., where she is a project engineer at CTS Corp. in Elkhart, working on organic coatings development for electronic components. They enjoy their new environment.

Laurie Brodie, MS, lives in Rolling Hills, Calif.

David Cook, BA (PhD, UC Berkeley), and his wife, Abbey, have three children. David works for Steritech, a small biotech company in Concord.

Dennis K. Fung, BA, is a criminalist with the Los Angeles Police Department. He received media attention during his expert testimony in the pre-trial hearings in the O. J. Simpson case.

Dale Shrum, BS (MS, DPM, California College of Podiatric Medicine), is a self-employed podiatrist practicing in Bermuda Dunes. He is Board Certified with the American Board of Podiatric Surgery, Board Qualified with the American Board of Podiatric Ortho-

pedics, a Fellow of the American College of Foot and Ankle Surgeons and Clinical Associate Professor, Los Angeles County/USC Medical Center.

1985

Patricia Healy, BS Biochemistry, MS 1988, is Research Assistant with the Scripps Research Institute in La Jolla, Calif. She will attend law school at Hastings in Berkeley this fall.

Kent Showman, BS, is Chemist MST-II at TRW in Redondo Beach, Calif. "I do both wet and instrumental chemistry for the Chemistry Technology Department. My field of emphasis is inorganic chemistry and thermal analysis." He has just completed some work with **Dr. Michael Gardner (MS 1970, CSULB; PhD, UCLA)** involving the kinetics of the reaction of sodium vapor with various metal oxides. He and his wife and three children live in Norwalk.

Michele (Miller) Taylor, BS (MBA, CSU Fullerton), is Institutional Sales Representative with Marion Merrell Dow, Inc. She and her husband are parents of two children. "I am furthering my career in pharmaceutical sales, and in my free time I enjoy water skiing with my husband."

1986

Jason Brown, Student, has purchased a dental practice in downtown San Diego. "My predecessor in the practice has the same last name—that, and the location, help a lot. I've purchased a home in Solana Beach; it's small, but it has a large yard and is only a short walk to the surf."

Annette Reid Guerrero, BA, is Air Pollution Specialist with the California Air Resources Board in El Monte. "I am currently employed as the lead staff person on the California Low-Emission Vehicle Regulations. As lead person I receive calls from all over the world from people wanting to adopt California's regulations. It is very satisfying and exciting to read about the Air

Resources Board almost every day in the newspaper. The most exciting part is the electric vehicle mandate."

Katherine Christopherson Kurjan, BS, is Senior Professional Chemist with Allergan, Inc. in Irvine.

Mark McLain, Student, is a medical student at UCLA and is involved in research in plastic surgery.

Grant W. Meisenholder, BS, is employed with the Department of Medicine as a Research Associate at UC San Diego. He has co-authored five publications. "We are trying to produce a viral construct which will deliver the desired gene with an appropriate promoter to a target cell. My job is to demonstrate viral attachment and transduction of the gene into the cell through the use of immunocytometry."

Richard Nighswonger, BA, and his wife, Tish, have a new son, Russell. Richard works as a chemical salesman with International Specialty Products and lives in Long Beach.

James Papas, BA, is a sales manager for GAF Chemicals in Mexico City. "I am still enjoying living in Mexico City—despite the terrible air pollution. My subsidiary increased sales in Mexico by 30 percent in the last year."

Robin Y. Underwood, BA, is Manager, Environmental Information Management Systems, for Hughes Environmental Systems, Inc. in El Segundo, Calif. She is a registered environmental assessor and has received the Medal of Achievement, United States Naval Reserves, for the environmental project at the Long Beach Naval Shipyard. She is on the Board of Directors for the Long Beach Junior Chamber of Commerce and is active in the Orange County Air and Waste Management Association.

John Watcher, BS, continues to work at McDonnell Douglas Space Systems in Huntington Beach. "I'm in the metallurgical group in the Materials and Process Engineering Department. My forte is corrosion engineering, causes and corrective action. I'm married and have two children."

1987

Dwayne D. Gergens, BS (PhD, UC Irvine), teaches chemistry at Cypress College, Cerritos College and Golden West College.

Larry C. Matsumoto, BA, (MD, Creighton University). "My first year in residency is almost complete and it was a busy one. I've attended almost 600 vaginal deliveries and about 40 C-sections, in addition to all the other surgery I was involved with. Residency in OB/GYN is four years, so I have three more to go."

Tom Murphy, BS, works at Coatings Resource Corp. in Huntington Beach.

1988

Caryl Acuna, BS Biochemistry (DDS, UCLA), is a dentist in general practice with the Del Amo Dental Group in Torrance, Calif.

Andrea Baxter, BS Biochemistry (MD, U of Oklahoma), received her MD from the U of Oklahoma College of Medicine on June 5, and was married to Dr. William Webster, a medical school classmate, on June 19. She will intern in surgery for one year at the Wright-Patterson Air Force Base in Ohio, and then will serve as a general practitioner for the U.S. Navy for a three-year period. Her husband, Bill, specializes in emergency room medicine.

Kerry W. DeGroot, BS Biochemistry (MD, Georgetown U), is a resident in anesthesiology at the Georgetown University Hospital in Washington, D.C. His wife, Jacqueline, also a physician, specializes in pathology.

Michael Kahr, BS (PhD, UC Riverside), has just completed his PhD in analytical chemistry and has received a post-doctoral appointment at Los Alamos National Laboratories.

Jon Lohwasser, BA (PharmD, UC San Francisco), is a staff pharmacist at Los Alamitos Hospital.

Robert Proffitt, BA, is a biomedical programmer at Children's Hospital in Los Angeles. He works in the Neuroblastoma Bone Marrow Transplant Laboratory and has responsibility for laboratory data base development and network connectivity. He continues to write custom software for digital imaging systems and is preparing to submit his first paper, "A Fluorescence Digital Imaging Microscopy System for Quantitating Cell Numbers *in vitro*." He and Pattie have two boys, Matthew and Eric, 9 and 8. Pattie is a nurse at Long Beach Memorial Breast Cancer Evaluation Center.

Elizabeth Siegfried Ronnau, BA, is employed as Inorganic Supervisor/Project Manager for Geotest in Long Beach. Geotest is an environmental testing laboratory with mobile laboratory capabilities.

Her husband, Andrew, continues to work on his PhD in civil engineering at the University of Illinois at Urbana-Champaign.

Debie Shahabani, Student (MD, USC), is in an Emergency Medicine Residency at USC. "My husband and I are excited to be able to stay in Long Beach with our home and his restaurant and real estate business."

Leo J. Stemler Jr., BS, is a Chemist with Unocal (Unipure Environmental) in Fullerton. "In addition to my work duties, I am the Chair of the Orange County Section of the American Chemical Society. One of my favorite activities is volunteering for the Kids and Chemistry Program. Unocal allows me to take time off on Friday mornings to do hands-on chemistry activities with 5th and 6th grade students."

1989

Angela Adams, BS Biochemistry, (MS, U of Nebraska), is a Staff Research Associate in the Department of Medicine at UC San Diego, and specializes in the diagnosis of genetic disorders at the



Dr. Andrea Baxter

molecular level. She will enter a PhD program in chemical oceanography this fall at the U of Hawaii.

Tim Bacon, BS (MS, UC Riverside), is a physics teacher with the Rialto Unified School District. He completed his teaching credential in 1993.

Ferman Chavez, BA, is pursuing a PhD in Bioinorganic Chemistry under the supervision of Dr. Pradip Mascharak at UC Santa Cruz. "Currently we are working on modeling the metal coordination site of the anti-tumor drug Bleomycin and other metalloenzymes. My work involves organic synthesis of ligands, NMR, EPR, GC and other analytical techniques. I have also been working in DNA strand scission studies using synthetic analogs of Bleomycin. This work involves the use of radionuclides, gel electrophoresis, and two-dimensional NMR. I have passed all of my attainment exams and have completed three of the six required graduate courses." Other CSULB students currently in PhD programs at UC Santa Cruz are:

Brett Kislin, MS 1987; Trevor Roberti, BS 1991; Gary Martinez, BS 1992; Sam Sperry, BS 1993.

Rita Glor, BS Biochemistry, completed her Doctor of Osteopathy degree and is physician-in-training at Downey Community Hospital.

Utha Hellman-Blumberg, MS Biochemistry, and her husband, Paul, announced the birth of a son, Marc August, on Aug. 24, 1993. Utha is a PhD Candidate in Biochemistry at UC Davis and recently authored a publication, "Developmental Differences in Methylation of Human Alu Repeats," in *Molecular and Cellular Biology*, **13**, 4523 (1993).

Steve L. Martin, BA. "I began the PhD program in archaeology at UCLA last fall. As part of my dissertation project I will be carrying out an analysis of the stable carbon isotopes found in prehistoric skeletal remains from the American Southwest. This information is to be used in a paleodiet reconstruction. The financial difficulties of the State have severely affected interdepartmental

programs like the one I am in. The Archaeology Program was almost dissolved in 1992."

Stephen Wilhelm, BS, is Vice President and Technical Director at Niklor Chemical Co., Inc., in Long Beach. He is presently the Chairman of the Chloropicrin Manufacturers Task Force.

Sarina D. Williams, BS Biochemistry, received her MD in 1993 from Baylor College of Medicine and is a radiology resident there. She is engaged to be married in October, 1994, to James O'Fordice, MD.

William Walton, BA, received his Doctor of Dental Surgery degree in 1993 from the U of Nebraska and is currently working with FHP in Long Beach.

Marco Wong, BA, received his MD degree from Wayne State U, Detroit, Mich., in 1993 and is currently a first-year surgical resident there. "I am working very long hours; however, I am enjoying it tremendously! My present interest is in general surgery and trauma. Residency is five years, and I am planning to do two years of research beginning my second year."

1990

Marcel Goldberg, BS Biochemistry, received his MD from the U of Kansas earlier this year and began a family practice residency program in Merced, Calif.

Jamie L. Hancock, BS Biochemistry, received her Doctorate in Optometry this year from UC Berkeley and is practicing in the San Francisco Bay area.

David J. Lennon, BS, is Director of Field Chemistry for IT Corp. in Wilmington, Calif.

David Porzio, BA, received his MD Degree from UC Irvine in June. He and Pamela Garcia were married Dec. 18, 1993. Pamela will graduate in June 1995. David is interested in specializing in anesthesiology.

Linda Schechinger, BS, is a PhD candidate at UC Irvine.

Greg Whitaker, BS Biochemistry, has completed his second year in podiatric medical

school in Chicago. "I still have two more years to go! I love school and Chicago, but I miss those warm Southern California days!"

1991

Miki Aurang Csintalan, BS Biochemistry, has completed her third year of medical school at Washington University in St. Louis, Mo., where her husband, **Rick**, also a former CSULB student, has finished his second year of medical school.

Eloisa Gonzalez, BS Biochemistry, begins her third year of medical school at Stanford University. She is looking forward to becoming acquainted with Jaime Gonzalez (no relation), another CSULB graduate who will begin medical school at Stanford this fall. Eloisa has just begun a research project, interviewing Latino hospice patients and their families concerning cultural attitudes toward death and dying and hospice care.

James A. Noblet, MS, is continuing work for his PhD at UCLA. He and Dr. Schugart have published two papers, "Structure and vibrational frequencies of the peroxymonosulfate ion HSO_5^- ," *J. Molecular Structure (Theochem)*, **304**, 13 (1994), and "Structures and relative stabilities of bisulfite ion somers," *ibid*, **304**, 1 (1994).

Shu-Chin Shen, BS, received the Kenneth Johnson Outstanding Thesis Award for the College of Natural Sciences and Mathematics for her thesis titled, "Electrochemistry of the Thiopyrimidines and Silver(II) Tetraaza Macrocyclic Complexes." She performed her research under the direction of Dr. Henry Po. Shu-Chin has returned to her native Taiwan following completion of the MS in Chemistry.

1992

Sherilyn (Bauer) Incledon, BS Biochemistry, leaves her position as Research Scientist at Baxter Healthcare in Santa Ana, to begin a PhD program in neuroscience at the U of Pennsylvania this fall. Sherilyn was the Outstanding

Graduate of the College of Natural Sciences and Mathematics in 1992.

Daniel Bernier, BS, will begin studies for the PhD in physical organic chemistry at UC Irvine this fall. He is the recipient of a \$17,000 Department of Education Fellowship.

Donald Crow, BS Biochemistry, has completed his second year of dental school at the U of Washington, Seattle.

Michelle Fredholm, BA, has received a two-year assignment as community health promoter in Nicaragua with the Peace Corps. Her pre-service training consists of 12 weeks of intensive training based in Honduras; training will be in three major areas: Spanish, cross-cultural adaptation and job orientation. She will live with a non-English speaking Honduran family, sharing meals, language and cross-cultural experiences.

Michelle Higley, BS Biochemistry, authored a research publication titled, "Processivity of Uracil DNA Glycosylase," appearing in *Mutation Research, DNA Repair*, **294**, 109 (1993).

Denita Low, BA, is a student in the Physical Therapy program at CSULB and is scheduled to graduate in December 1994.

Glap Minh Nguyen, BS. "I have just finished the second year of the Master of Divinity program at Sacred Heart School of Theology (Roman Catholic) in Hales Corners, Wis. I really enjoy reading the *Newsletter*. It brings back many vivid days at CSULB. I am also very proud of some Vietnamese last names which appear on the Honor List in the *Newsletter*."

James Peterson, BS, has completed his second year in the PhD program in Chemistry at UC Davis. He is conducting research in intramolecular aminolysis, a short cut to cyclic peptides. His research director is Dr. Claude Meares.

Samuel Sperry, BS. "I am a teaching assistant for freshman chemistry, and I'm working toward the PhD in organic chemistry at UC Santa Cruz with my research to be directed in the area of Marine Natural Products Chemistry under the direction of Dr. Phil Crews. My free time is mostly spent surfing."

1993

Eugene (Rich) Charlebois, BS Biochemistry, is a medical student at the California College of Osteopathic Medicine.

Monique Chhour, BS Biochemistry, is a medical student at Howard U in Washington, D.C.

Alec Greer, MS, is a PhD student at the U of Wyoming in Laramie. His work involves clarifying the mechanism of 1O_2 oxidation of thietane.

Charles Lindeman, BA Chemistry; BS Business Administration, 1985, is an environmental consultant with Targhee, Inc., in Long Beach.

Vasrick Navasartian, MS Student, Biochemistry, will begin dental school at UCLA in the fall of 1994.

Robert Rzasa, BS, is a PhD student at Texas A&M U. He has started work in synthetic organic

chemistry with Dr. Daniel Romo. He has undertaken the synthesis of pateamine, a potential antitumor agent found in marine sponges off the coast of New Zealand.

Robert Smith, BA Chemistry; BA German. Robert and Jennifer live in Warrington, England. "While in London I saw an ad in a local paper written in German, advertising for someone to work in sales and export of DEC computer systems to Germany. I got the job, and I love my work." Friends will be pleased to know that the Smiths are planning a visit to Southern California at Christmas time.

Robert "Chip" Stevens, BS Biochemistry. "I am enjoying my work at Beckman Instruments very much."

Jana L. Van Meter, BS Biochemistry, is a quality control chemist at Spectrum Chemical Company in Gardena, Calif.

Said Zamani-Kord, MS, is a PhD candidate in organic chemistry at UC Davis.

Photo by Vileen Q. Vo



Alumni Awards Banquet. Left to right: Dr. Dwayne Gergens, Michael Moone, Dr. Robert Loeschen, Dr. Ken Marsi

Honors to 1993-94 Graduates and Continuing Students

Ihab A. Abumuhor Election to Phi Lambda Upsilon; President's List
Leticia Arellano-Summer Stern Memorial Award in Physical Chemistry; Chemistry Alumni Award; Hewlett-Packard Award for Excellence; MBRS Fellow; MBRS Fellow
Najat Aoun Graduate Dean's List; Henderson Memorial Award
Eric Barron MBRS Fellow
Oren Beske CSULB Alumni Outstanding Senior Award; Rhodes Award; Election to Phi Beta Kappa; Election to Phi Lambda Upsilon; Howard Hughes Scholar; Henderson Memorial Award
Jennifer Brook California Foundation for Biochemical Research Summer Fellowship
Juan Campos MARC Scholar
John Cashman Howard Hughes Scholar
Yelen Concepcion MARC Scholar
Martha De la Rosa MBRS Fellow
Thang Dinh Merck Award (Organic Chemistry); Inorganic Chemistry Award; Chemistry Alumni Award; Hewlett-Packard Award for Excellence; Howard Hughes Scholar
John Escobar MBRS Fellow
Stephen Espitia MBRS Fellow
Kaiser Estrada MBRS Fellow
Kyle Findly President's List
Daniel Foster American Institute of Chemists Award; Departmental Honors; Hewlett-Packard Award for Excellence; Chemistry Alumni Award
Thomas Gillespie President's List
Dana Haley Analytical Chemistry Award; Chemistry Alumni Award; Hewlett-Packard Award for Excellence; President's List
Scarlet Hamamchian President's List
Jason Haughton Howard Hughes Scholar; President's List
Michelle Higley MBRS Fellow
Thach Ho American Chemical Society Polymer Chemistry Award; Howard Hughes Scholar
Katherine Hull President's List
Steven Jensen Howard Hughes Scholar
Ahmed Kandeel MBRS Fellow
Keith Kinoshita Biochemistry Award; Chemistry Alumni Award; Hewlett-Packard Award for Excellence
Dao S. Lim Howard Hughes Scholar
Gary Losey President's List
Anthony Medak Howard Hughes Scholar; President's List
Kevin Merkes Khalil Salem Award; Scoggins Memorial Award; Hewlett-Packard Award for Excellence; Howard Hughes Scholar; President's List
Alison Moss Howard Hughes Scholar
Devin Miller President's List
Bennett Murray Freshman Award; Chemistry Alumni Award; Hewlett-Packard Award for Excellence

Lam Hien Thi Ngo President's List
Hoang T. Nguyen President's List
Thomas Nguyen Howard Hughes Scholar
Thomas Patko President's List
Nguyen-Phuong Pham President's List
Judith Ramillano Horalek Award; Chemistry Alumni Award; Departmental Honors; MBRS Fellow
Edwin Reyes President's List
Brian Rivera MBRS Fellow
Martin Rocha MBRS Fellow
Jeffrey Selander President's List
Shu-Chin Shen Johnson Outstanding Thesis Award
Teresa Streifel Departmental Honors; Howard Hughes Scholar; President's List
Davide Tenaglia Election to Phi Lambda Upsilon
Hue Tran President's List
Khai Tran California Foundation for Biochemical Research Summer Fellowship
Rachirong Vinyaratn President's List
Kathy Wang Scoggins Memorial Award; Hewlett-Packard Award for Excellence
Timothy Watson President's List
Jeff White President's List
Julia Wiedler Howard Hughes Scholar
Shirley Wong Howard Hughes Scholar; Biochemistry Award
Cynthia Ybarra MBRS Fellow



Khai Tran and Jennifer Brook, California Foundation for Biochemical Research Summer Fellows

[Editors Note: Explanation of abbreviations: MBRS = Minority Biological Research Support (NIH funded); MARC = Minority Access to Research Careers (NSF funded)]

Gifts by Individuals to the Department

Gifts to the department amounting to \$20,276.15 were received from 168 individual donors between July 1, 1993, and June 30, 1994. This represents a 68 percent increase in the number of individuals making gifts to the department as compared to last year! **If you are considering a gift to the department and you are not certain, you might investigate whether or not your employer will match your gift.** Matching gifts obviously multiply the value of your contribution. **If you are contacted by students during the annual Phonathon requesting a gift to the university, we would appreciate that you state 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 revert to the university.

Each donor will receive a personal gifts acknowledgement from the Chairman of the Department of Chemistry and Biochemistry. If you donated *via* Phonathon in the past year, your name may not be on the list of donors, because there is often a delay in departments receiving this information. Your name will then appear in a subsequent *Newsletter*.

Funds received from alumni are used to supplement costs of our instructional programs, for Alumni Scholarships and Awards, for publication expenses of the *Chemistry and Biochemistry Newsletter*, and for emergency supplies and services. Some funds are placed in an endowment account from which interest is used by the department. All of us, faculty, staff and students, appreciate your help in enabling us to continue to provide the best education possible for our students.

When you return the form on the inside of the back page of this *Newsletter*, you might wish to enclose a gift. If so, you may make your check payable to: *CSULB Foundation/Chemistry Fund* and send to *Department of Chemistry and Biochemistry, California State University, Long Beach, 1250 Bellflower Boulevard, Long Beach, CA 90840-3903.*

Honor Roll of Individual Contributors, 1993-94

Abe, Patricia T.	Easterling, Michael	Kahr, Michael, PhD
Acey, Roger, PhD	Elser, Clare	Kishishita, Tina, PharmD
Adams, Angela	Fasheh, Bassam	Klein, Larry
Allen, Kathleen E.	Fellows, Bruce L., PhD	Kline, Margaret, PhD
Allison, Deborah M.	Fritch, Stephen & Sara	Korber, Bette, T. M., PhD
Anjo, D. Mark, PhD	Garber, Ronald, PhD	Kurjan, Katherine C.
Appleton, Chris D.	Garrigues, William & Beverly	Larowe, Gary L.
Arakaki, Lance K., DMD	Gergens, Dwayne D., PhD	Laurence, Karen
Aspland, Jerry & Carol	Gergens, Dwight	Lazarus, Leon
Augimeri, Thomas D.	Ghamssari, A. A.	Lee, David K., PhD
Basiulis, Danute	Goeders, Bernard	Leeb, John
Baxter, Andrea A., MD	Goko, Hideki	Lennon, David J.
Becker, Edwin N., PhD	Goldish, Elihu, PhD &	Levy, Edward, PhD
Berg, John R.	Dorothy M., PhD	Lieu, Van T., PhD
Blair, Robert K.	Goodman, Isidore, PhD	Lomeli, Luis, MD
Bogdon, Andrea A.	Goyne, Thomas, PhD	Long, Jack E., MD
Bowman, Reid H., PhD	Grady, Sean	Loughney, Melissa H., MD
Brown, Arthur W.	Guerrero, Annette Reid	Maiden, Robert
Buus, Delyse R., MD	Gufrey, Tom	Marsi, K. L., PhD & Irene
Byrd, Norman R., PhD	Healy, Patricia A.	Marsi, K. Scott
Cachia, Victor V., DPM	Hegler, Norm W., PhD	Marsi, Marianne, PhD &
Calloway, A. R.	Henderson, Dora, J.	Manring, Lewis E., PhD
Carre, David, PhD	Hermes, Renee G.	Martin, Steve L.
Carroll, Mr. & Mrs. Ronald H.	Holmes, Carol J.	Martinez, Anna B.
Castellino, Stephen, PhD	Honda, Don, PharmD	Mayfield, Darwin, PhD
Chavez, Ferman	House, Brad W.	Maynard, David F., PhD
Clarke, Larry P.	Hulbrock, William	McKay, Patrick A.
Clawson, Vickie	Hutchins, Robert O., PhD &	McLaughlin, Anthony G., DDS
Cook, David N., PhD	MaryGail, PhD	Meisenholder, Grant W.
Coulter, Roger	Ichikawa, Jeffrey	Middleton, Mrs. Paul (Dorothy)
Cunningham, Alan, PhD	Inclledon, Sheryl M. (Bauer)	Milkovich, Mary
Davin, Dennis J., MD	Ishida, Dwayne Y.	Moaddeli, Sharareh N.
DeGroot, Kerry W., MD	Ito, Thomas I., PhD	Molina, Mary Martha, MD
Dingle, Dennis G.	Jetter, Jeff. J. & Pamela A.	Mosher, Paul V.
Dorer, Fred H., PhD	Kanne, David, PhD	Mustillo, Michael

**Honor Roll of
Individual Contributors,
1993-94**

continued from page 24

Neely, James W., DO
 Nghiem, Ba Thu, PhD
 Nguyen, Giap M.
 Nowinski, Stuart
 Oliver, David
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 Patterson, Melanie M.
 Pedersen, Robert C., PhD
 Perlgut, L. E., PhD
 Peterson, Selma
 Proffitt, Robert
 Purvis, Herschel D.
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 Sarno, Maria Erlinda
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 Senzel, Alan, PhD
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 Showman, Kent W.
 Shrum, Dale, DPM
 Stemler, Leo
 Stevens, Robert M.
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 Vuong, Lily N.
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The value of gifts to the department from all sources during the past year was \$100,498. Corporations donated \$80,222 in cash or in-kind gifts. Some of the cash gifts monies will be used for expenses associated with department operations and student scholarships and awards. Some of the funds will be deposited in endowment and scholarship accounts to earn interest. The interest generated will be used to help support the programs of the department and to give scholarships to deserving students. In that way gifts will be of perpetual value to our department. Because of the State of California's fiscal crisis, the effects of budget reductions have been painfully felt in our department. Thus, we have come to depend upon assistance from alumni, businesses and other organizations to help meet the expenses of maintaining a quality program in Chemistry and Biochemistry. We are indeed grateful for these gifts!

Members of our department would like to express their sincere gratitude to all companies and other organizations listed for their very generous assistance with cash, matching and in-kind gifts:

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