CALIFORNIA STATE UNIVERSITY, LONG BEACH

Chemistry and Biochemistry Department Newsletter

August, 1993 Number 18

Dr. Ralph Adams: 14th UNOCAL Lecturer

By Dennis M. Anjo

The 14th Annual Distinguished Lectureship, sponsored by UNOCAL, was Professor Ralph Adams this year. Dr. Adams is university professor at the University of Kansas and a world-renown expert in both analytical electrochemistry and neurochemistry. The author of numerous research publications and books concerning electrochemistry and neurochemistry, he also has received many honors and awards, including the ACS Award in Analytical Chemistry, the ACS Award in Electrochemistry, and the I. M. Kolthoff Gold Medal Award. Although by training an analytical chemist, Dr. Adams holds joint appointments in the Departments of Biochemistry, Psychiatry and in Pharmacology and Toxicology at the University of Kansas. His well-attended talks were at the intersection of the two exciting disciplines of analytical chemistry and neurochemistry.

Dr. Ralph Adams:14th UNOCAL Lecturer

Dr. Adams' first talk, "Recent Developments in the Neurochemistry of Schizophrenia," concerned the anatomical, physiological, microscopic and chemical changes that accompany schizophrenia. In his presentation he summarized the known objective differences between people with schizophrenia and the population as a whole. The most distinctive differences he presented in living patients were observed with Magnetic Resonance Imaging (MRI) and Positron Emission Tomography (PET). He indicated that although there is a statistical difference between people with schizophrenia and the population as a whole when using these imaging techniques, there is a great overlap between the groups. The imaging techniques in themselves could not be used for individual diagnosis.

Dr. Adams' technique of microdissection and chemical analysis of brain tissue is one of the most accurate techniques for diagnosis of individual cases of schizophrenia in blind trials. Unfortunately, this technique can only be done after death. However, the anatomical differences in neurotransmitter concentrations determined from the micro-dissection experiments may help improve drug and biochemical treatment schemes for schizophrenia.

The second talk, "In-Vivo Detection of Norepinephrine with Carbon Fiber Electrodes," concerned the development of techniques for direct chemical

continued on page 5

James Jensen Named Acting Dean of Sciences & Math

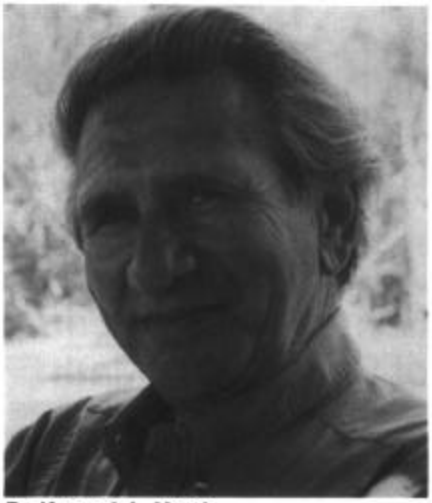
Dr. Fred Shair** (left) and **Dr. James Jensen

Following the resignation of Fred Shair, dean of the College of Natural Sciences and Mathematics, in March of this year, Dr. James Jensen was appointed acting dean. Dr. Shair left CSULB to become manager of Educational Affairs at the Jet Propulsion Laboratory in Pasadena.

Since assuming office, Dr. Jensen has reorganized the college office and facilitated the restructuring of the departments of Anatomy & Physiology, Biology and Microbiology into the Department of Biological Sciences. Dr. Jensen received his bachelor's degree from Westmont College in Santa Barbara, master's from UC Santa Barbara and PhD from the University of Washington, Seattle. At the time of Dr. Shair's resignation, Dr. Jensen was serving as acting associate dean. He joined the Department of Chemistry in 1968.

continued on page 7

Chairman's Report



Dr. Kenneth L. Marsi

Greetings to alumni and friends across the nation and throughout the world. We have appreciated your cards, letters and *Newsletter* responses. The achievements of our alumni are a constant source of pride for our faculty, and we are committed to maintaining excellent programs in Chemistry and Biochemistry to protect the value of your hard-earned bachelor's and master's degrees!

As the table below plainly shows, it is becoming more difficult for us to support our programs with state funding. We are relying more and more on private assistance to help us through these lean times. The faculty, students and I are most grateful for the generous support which we have received this past year from alumni, industry and business. It has assisted us enormously in our struggle to provide the best educational experiences for our students.

• **Graduates.** Fifty bachelor's and five MS students were graduated this past year. These numbers will place us among the top 3-4% of the colleges and universities in the nation. You will note in the table above that the number of majors is growing, although enrollments in the university are declining.

• **Private support.** This continues to increase, despite California's economic difficulties. This past year $129,150 in cash and in-kind gifts were received by the department, six times the funds obtained from the state for operating expenses! Gifts of supplies and equipment amounted to $83,079, and cash gifts totalled $46,071. Money received is used for student awards and scholarships and to meet emergency needs for which there are no state funds. We try to place as much of the money as possible into our endowment account, so that your gifts will continue to be of perpetual use to our department through the interest which is generated.

• **Grant support.** For 1991-92, the last year for which this information is available, faculty in our department obtained $975,131 in grant funds for research and special educational projects. These funds were received from granting agencies such as the NIH, NSF and the Hughes Foundation. However, these funds cannot be used for the department's operating expenses.

• **Facilities.** A modest renovation of Peterson Hall 3 (PH3) is nearing completion, and there are long-range plans for an annex to PH3, although there is no funding at present. The Chemistry and Biochemistry Department has endured two winters without heat and with leaking ceilings. We are hopeful that this situation will be corrected by the coming winter.

I wish to thank alumni, business and industry for their gifts and moral support; the Chemistry Advisory Council for its continuing assistance; the members of the Corporate Campaign Committee for their tireless efforts to obtain funding for the department; and the faculty and staff for their dedication and skill in the performance of their duties in circumstances which could discourage the most optimistic.

—Ken Marsi

	1988-89	1992-93	% Change
Faculty Positions[a]	33.5	25.8	-23
Full-time Equivalent Students (FTES)[b]	550.2	437.3	-21
FTES/Faculty[a]	16.4	16.9	+3
Supported Graduate Students[c]	27	16	-41
Majors (Undergraduate)[c]	195	226	+16
Majors (Graduate)[c]	34	44	+29
Operating Funds (State)[a]	$70,137	$20,000	-71
Dollars/Student[a]	$127	$46	-64
Equipment Funds (including lottery)[a]	$80,714	–	-100
Private Funding[a]	$22,287	$129,150	+480
University Enrollment[c]	35,363	30,071	-15

[a]Annualized or for the year.
[b]FTES means *Full-time Equivalent Student*, and is determined by dividing by 15 units of chemistry courses enrolled in by students.
[c]For fall semesters.

Endowed Awards

Steven J. Dell,
Robert B. Henderson Scholar

Samuel Sperry,
Robert B. Henderson Scholar

Robert B. Henderson Memorial Award

Two outstanding graduates were named as recipients of the Robert B. Henderson Memorial Award this year, Steven Dell and Sam Sperry, both BS Chemistry graduates. This award was established by Dr. Henderson's family, colleagues and friends to honor the memory of Dr. 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.

Steven J. Dell

Although born in England, Steven Dell received his high school education in the United States. His undergraduate research was completed under the direction of Dr. Kensaku Nakayama and involved stereospecific syntheses of natural products. Steve entered CSULB as a Business major. Because he qualified for the University Honors Program, he enrolled in Honors Chemistry to meet general education requirements. He soon realized that chemistry held more interest for him and changed his major to chemistry as a freshman. Steve excelled in all of his classes and, in addition to the Henderson Award, he received the Chemistry/Biochemistry Alumni Award and awards in analytical chemistry and organic chemistry (Merck Award). For his outstanding scholarship he was one of 19 graduates from CSULB elected to Phi Beta Kappa. He was also elected to Phi Lambda Upsilon, the honorary chemistry society.

Steve will attend Princeton University this fall, where he will study for the PhD in organic chemistry.

Samuel Sperry

Samuel Sperry is a December 1992 graduate with a BS in Chemistry. Since graduation he has worked as a chemist for Certified Testing Laboratories in Signal Hill. In addition to receiving the Henderson Award, he was named one of the Merck Award recipients last year by the department for his outstanding scholarship in organic chemistry. Also, he was chosen to receive the Chemistry/Biochemistry Alumni Award in 1992. Sam has accepted an assistantship in the Department of Chemistry at UC Santa Cruz, where he will begin studies for the PhD in organic chemistry this fall.

Sam has sampled public higher education at all levels in California, attending UC Berkeley and Harbor Community College before continuing his education as a junior at CSULB. Sam is an avid surfer. Following graduation last December, he spent time in Hawaii surfing. Normally, he surfs the beaches off Palos Verdes Peninsula, but this summer he planned to surf in Costa Rica, where he says the waves are outstanding.

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 awardee is Brigitte Nguyen, who received a BS in Biochemistry at the May 1993 Commencement. Among other honors, she also received the Howard Hughes Award and was named to the President's List every semester at CSULB.

Transferring to CSULB in the spring semester of 1992, Brigitte earned a 3.83 GPA at Cal State Long Beach. Prior to enrolling at CSULB she attended UCLA and UC Irvine. Brigitte will study jointly for the PharmD and PhD degrees at UC San Francisco. After completing her studies, she plans to pursue a career in the pharmaceutical sciences.

The John H. Stern Memorial Award

Thang Dinh, a junior BS Chemistry major, 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 from 1958-1987. Thang, an outstanding chemistry student, also received the ACS Polymer Division Award in Organic Chemistry this year. In addition, he was awarded a Howard Hughes Fellowship which enables him to spend the summer doing research in Dr. Nail Senozan's laboratory. After graduation he plans to pursue a PhD in Chemistry.

Retirements

Dr. Roger D. Bauer

Dr. A. J. "Jack" Berry

Joining the ranks of emeritus faculty in 1992 were Dr. Roger D. Bauer and Arnold "Jack" Berry, both members of the Biochemistry subgroup in our department. Roger Bauer, who received his PhD from Kansas State University, joined the department in 1959 and served as a faculty member, department chair, and finally as dean of the School of Natural Sciences. Jack Berry, a clinical chemist whose PhD was conferred by Ohio State University, was appointed as assistant professor in 1973 and retired as professor of Chemistry.

Roger D. Bauer

My journey started in the Midwest, and I followed the "yellow brick road" to the Golden State in 1959. My first encounter at the college was with Don Simonsen, who was to become my office mate in the "biochemistry area" of Peterson Hall-2 (Science-2). He, along with Bob Henderson and Darwin Mayfield, made up what the junior faculty referred to as the "Big Three." It was their leadership, their interest in helping students learn and their support for new colleagues like myself that set standards for our quality programs.

My first teaching assignment was an accelerated honors course in first year chemistry. Mercifully, after that, my lecture assignments were all in biochemistry. I was fortunate to receive an NIH research grant in 1961 which helped me support a number of very fine students at both the undergraduate and graduate levels. I probably should not mention any names since I will undoubtedly leave out some important ones, but a few do stand out: Gary Hathaway and Dave Fagerburg at the undergraduate level, and Bill Lake, Wilhelmina Loring Hathaway, Bill Thomasson, Joanne (Farvolden) Ehteshmzadeh, Yukio Kakuda, Gene Oliphant, Roy Johanson, and Joe Reeve among the graduate students. Karl Dreher, my first master's student, graduating in 1962, was a Biology major since we did not have a graduate program in Biochemistry at that time.

A turning point in my career took place while I was on sabbatical at UCLA. The department asked me to return from this leave to become chair in 1966. This started me on my road to ruin, as administrative chores quickly took over much of my time. After nine years of that responsibility, I was named dean of the newly formed School of Natural Sciences in 1975.

The School of Natural Science was organized to allow the sciences to develop some of their specific strengths as a group and also to provide some level of leadership in enhancing the overall quality of the university. Those days, especially the earlier ones, were filled with a positive feeling of building an educational enterprise of which we all could be proud. I have always believed that a strong university is built upon strong departments which use their strengths in a cooperative way with other quality departments to form a unit that somehow is better than the sum of the parts. Perhaps my background in biochemistry was helpful in reaching this view, since all of the disciplines in science contribute to our understanding of the nature of living systems. In my judgment a university is such a living system if it is operating correctly.

In the last few years, I have focused my attention on the mentoring of students and assisting them in their career development. This has been especially rewarding as it allows me to concentrate on the students and not on the administrative and political activities that often seem to overtake the university. I hope to continue on a part-time basis with these kinds of activities for the next few years and be of some help to these young people as they move into careers in science.

A. J. "Jack" Berry

My retirement happened abruptly and only a few days before classes were to begin last fall. I wanted to participate in the early retirement incentive program, but I was on sabbatical leave at the time and had previously signed an agreement to return to the University. Shortly before classes were to begin, the university agreed to waive the "return to service" requirement.

I am now enjoying more time for ceramics and printmaking. I spent a lot of time this spring studying meso-American culture, particularly Aztec and Mayan art and their beautiful language glyphs. I'm currently working with ceramics and printmaking, which are heavily influenced with these graphics.

I have been a part-time potter for 25 years, but recently I've been working with etching and aquatint processes. Sometime I may want to try lithography and have been reading much about it. The physical chemistry of the lithographic process is fascinating, complex and poorly understood. Some lithographic reference books contain chapters on the "Chemistry of Lithography," some of which are very humorous. Ultimately, I would like to produce enough pieces to have a show and get involved with some galleries and festivals.

(Dr. Berry continues to live in Long Beach although he has plans to move to San Juan Capistrano in the near future.)

Student Affiliates of the American Chemical Society

Keith Bogdon, President, SAACS

By Keith Bogdon
President, SAACS

SAACS enjoyed one of its most active years as a catalyst for social and professional integration of students and faculty in the Chemistry and Biochemistry Department. Our activities can be summarized in the following categories.

Professional. We sponsored or co-sponsored several speakers who supplemented our classroom experiences.

- **Dr. Henry Fung** (Microbiology) and Dr. Leslie Wynston (Chemistry/Biochemistry) discussed the pre-health professions, pre-medical, pre-dental, etc.
- **Dr. Michael Nance** from UC Davis talked about graduate opportunities in his department and discussed Chiral Ansa/Metallocenes.
- **Kurt MacLean**, an alumnus and attorney with Poms, Smith, Lande and Rose, presented a program on law as a career option for chemistry graduates.
- **Dr. L. G. Wade** of Whitman College and author of our organic chemistry textbook met with students and gave a well-attended talk on "Uses and Abuses of Gunshot Residue Analysis."
- **Dr. Arthur Schawlow**, Nobel Laureate, presented a seminar, "Lasers in Science and Life."
- A group of SAACS members went on a field trip to the Jet Propulsion Laboratory.

Social. Every Friday morning during the academic year the members of SAACS held a coffee and donut hour at which 40-50 students and faculty met for informal discussions. About 70 people turned out for food, dancing and entertainment at our annual Taco Feast in the fall. Instead of our annual evening Holiday Party, this year we held a Holiday Breakfast for faculty and students in place of the regular coffee donut hour. Our International Spring Party was held at Dr. Marsi's home, with each faculty member bringing an ethnic dish and each student a dessert or salad. Last, but not least, about 70 students and faculty attended our SAACS-sponsored Awards Luncheon where 15 students received 18 awards for service and scholarship.The luncheon was held off campus at Avenue No. 3 Pizza and was paid for by proceeds from our fund-raising activities.

Fund-raising. To help fund the activities listed above, members of SAACS sell safety equipment (goggles, aprons, safety manuals, gloves and lab coats) each semester to laboratory students. We also sell T-shirts and sweatshirts with chemical logos and molecular model kits to students taking organic chemistry. This year we participated in the Associated Students Spring Fest and had a food booth as a fund-raiser.

Adams: Unocal Lecturer continued...

analysis in the brain. In these experiments the levels of norepinephrine were determined with carbon fiber electrodes developed for chemical analysis in the brain. The levels of norepinephrine in the brains of living rats were monitored before and after an external stimulus. The change of norepinephrine at various different regions of the brain were monitored during stimulus. The spatial and temporal distribution of norepinephrine following a stimulus was mapped for the rat brain.

Following the second talk, a reception was held for Dr. Adams where he had the opportunity to talk with faculty and students from many disciplines at CSULB and representatives from other institutions in the area. We would like to thank Dr. Adams for two extraordinary presentations and UNOCAL for its continuing support of this lectureship.

Taco Feast, Fall 1992. *Left to right:* ***Dr. Ken Marsi, Dr. Annie Bianchino, Dr. Stuart Berryhill, Dr. Robert Acey, Michelle Higley, George Flores and Judy Ferraro.***

New Advisory Council Members

Dr. James F. Griffith, Dow Chemical

Jeffrey Jetter, Honda

Kenneth P. Stoub, IT Analytical Services

The Chemistry and Biochemistry Advisory Council is a group of 25 people from the business and industrial sector, most with backgrounds in chemistry, who assist the department with advice and offer material support though gifts of equipment, supplies and funds. Companies represented on the council are major employers of our students as well. The council meets with faculty and student representatives twice a year on campus, and discussions are held and actions taken concerning cooperative efforts between academe and the business community.

Dr. James F. Griffith

Dr. James Griffith is laboratory and quality supervisor at the Dow Long Beach Marine Terminal in San Pedro. He was previously employed with the UNOCAL Science and Technology Division at Brea. He received his BS Degree (Chemistry) at New Mexico Institute of Mining and Technology, his MA (Chemistry) at San Diego State University and his PhD (Analytical Chemistry) at UC San Diego.

Jeffrey Jetter

Jeff Jetter, a BS Chemistry graduate from CSULB in 1982, is senior chemist in the Fuels and Emissions Group at Honda Research and Development North America, Inc. in Torrance. He was previously employed with Unocal Science and Technology Division in Brea as a research chemist. His wife, Pamela (Hubler) Jetter, is also a 1982 BS Chemistry graduate and works with IT Analytical Services in Cerritos.

Kenneth P. Stoub

Ken Stoub is senior manager of analytical research and testing with IT Analytical Services in Cerritos, and controls a budget of $6 million and a staff of 61 persons. Previous to his employment at IT, he held similar positions at Waste Management, Inc. in Geneva, Ill.; Shankman Laboratories in Los Angeles; and Agri Science Laboratories in Cerritos. He received a BS in Chemistry from Calvin College in Grand Rapids, Mich.

L. G. "Skip" Wade: Prentice-Hall Visiting Lecturer

By Kensaku Nakayama

On March 17, Professor L. G. "Skip" Wade visited the department as our first Prentice-Hall Visiting Lecturer. Dr. Wade is the author of the textbook,

Dr. L. G. "Skip" Wade

"Organic Chemistry," written for the year-course in organic chemistry and which was adopted for use by organic faculty beginning in the fall of 1992. Professor of Chemistry at Whitman College in Washington, Dr. Wade received his PhD from Harvard University. His visit was sponsored by Prentice-Hall, publisher of his textbook.

Dr. Wade had a very busy day at CSULB, starting with his attendance at a breakfast meeting with the Chemistry Department Advisory Council at 8 a.m. He then met with undergraduates to discuss his textbook and lunched with faculty and students. He also met with faculty and received comments and suggestions about his textbook.

The day's visit culminated with a very well-attended talk by Dr. Wade titled, "Uses and Abuses of Gunshot Residue Analysis," in which he emphasized the technique of gunshot residue analysis as being based on solid chemical foundations. Dr. Wade is interested in forensics and is often called upon to give court testimony in cases involving the use of firearms. Following his seminar, a reception was held for Dr. Wade where faculty and students had the opportunity to meet and talk with him.

Outstanding Natural Sciences/Math Graduate a Biochemistry Major

Jose E. Meza

At the 1993 College of Natural Sciences and Mathematics Commencement ceremonies, Jose E. Meza, a graduating senior in Biochemistry, was presented with the college's Outstanding Graduate Award by Eddie Robb, vice president of the CSULB Alumni Association. Each year only one graduating senior in each of the university's seven colleges is selected for this prestigious award.

Jose ranked first among approximately 60 Chemistry and Biochemistry graduates, with a GPA of 3.93. In addition to his distinguished academic career, he has been actively involved in a research program carried out in association with the MARC (Minority Access to Research Careers) project at this university, and he has presented several papers to scientific groups based upon his undergraduate research activities.

He has been quite active in Chicanos for Community Medicine, a peer group whose purpose is to lend support and encouragement to Latino students who aspire to careers in medicine or medically related fields.

Jose served as a tutor in a supplementary instruction program in organic chemistry outside of classroom hours, assisting students in small groups to learn the fundamentals of organic chemistry.

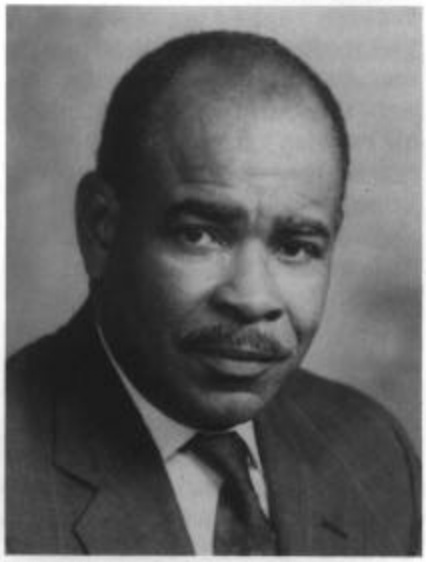
This fall Jose will enter a PhD program at UC Berkeley. "Acceptance into two of the most prestigious PhD programs in the country has meant a great deal to me," says Jose, who has chosen Berkeley over Johns Hopkins to study for his doctorate and then enter an academic position. "I hope that as a minority PhD, I can serve as a role model in order to encourage other minority students to continue their education beyond a high school diploma or a bachelor's degree. I have learned that there are people who really care whether you make it in this world, and I hope to have the opportunity in the future to make a positive difference in someone's life."

Karl Anatol Becomes Interim President

To replace President Curt McCray, who accepted the presidency of Millikin University, a private college in Illinois, Chancellor Barry Munitz appointed Dr. Karl Anatol as interim president.

Dr. Anatol, a native of Trinidad, was appointed assistant professor of speech in 1969 and has risen through administrative ranks as department chair, associate dean of instructional support, dean of the School of Humanities, provost and senior vice president of Academic Affairs and now, interim president.

He received his bachelor's degree in speech and English from Andrews University, a master's in interpersonal communication from Purdue University and his doctorate in speech communication from USC. A permanent president is expected to be named by the fall of 1994.



President Karl Anatol

Jensen Named Acting Dean continued...

Dr. Jensen continues to supervise an active research program, and his research group consists of four undergraduate and three graduate students, supported by grants from the NSF and the NIH. One of his students, Nina Bao, is now writing her MS thesis. His increased administrative duties have slowed the publication of results obtained by several former students (Frank Hwang, Greg Shaw, Richard Kanner and Dan Bernier), but publication is planned for 1995.

Roger Acey. New students joining my group are Jennifer Brook, an undergraduate who is working on metal metabolism in *Artemia*; Tom Kelly and Dennis Kawamoto, graduate students who will be studying the mechanism of microbial petroleum biodegradation; and Khai Tran, a graduate student in Biology whose thesis research will be performed in my laboratory. Finishing are Mike Bundy, who completed his MS and is working for an enviromental testing company; Conrad Winn, who has submitted his thesis for final approval and is working for Baxter Healthcare; Steven Parker and Brent Harpham, are writing their theses; Shawn Misialek, who graduated with a BS in Biochemistry, and who will be entering a PhD program at Purdue in the fall and is working in my laboratory as a Howard Hughes Scholar this summer; Derrick Myers, an MBRS student entering medical school at UC Irvine in the fall; and Robert Smith, who graduated with a BA in Chemistry and will be leaving for Europe. Stephen Espitia, who's working on isolating genes from *Artemia* will continue.

The Memorial Hospital Foundation provided funding to study the effects of stress on metal metabolism in newborn infants. Dr. Desmond Lu, a Fellow in Neonatology, spent time in my laboratory working on this project. Our research also focuses on metal metabolism in human lymphocytes. This is the continuation of the project I started when on sabbatical at Baxter Healthcare. We're trying to pinpoint the role of metal-binding proteins in the process of lymphocyte activation.

Other funding for our work is provided by Chevron Oil Field Research, NIH, American Qualex and NIH-MBRS.

Dennis Anjo. We have had quite a productive year down in the basement of PH2. A paper authored by Shelton Brown, Linda Wang, and myself on carbon film electrodes was published in *Analytical Chemistry*. Also, papers have been accepted in *Analytical Letters* and *Analytical Instrumentation* concerning carbon electrodes; the student authors on these papers are Keith Bogdon, Shelton Brown, Erin Gibson, Linda Kennedy, Daniel Meder, Coleman Smith and Humberto Gutierrez.

Eric Barron, Su-Ying Lee and Kiana Tabibzadeh are continuing their graduate research concerning the background current at carbon electrodes. Each is working on a new method to lower the background noise from carbon electrodes.

Krista Marantos is finishing up her project on the diffusion coefficients of catecholamines. We should have a publication concerning the project this year. Kelvin Tjon is determining the dissociation constants for a number of catecholamines and related compounds using a computer-controlled titrator.

Erin Gibson, our NSF Young Scholars research student, is beginning her freshman year at UC San Diego; Linda Kennedy is finishing her bachelor's degree at CSU Northridge; Dan Meder has moved to Salt Lake City to pursue a business career. We also have a new addition to our group: Kaiser Estrada is working on digital voltammetry with carbon electrodes.

Peter Baine. This year I have been serving as chair of the Southern California Section of the ACS. The job falls into two categories; the first is to appoint chairs for the various committees that really make the section tick, and the second is to officiate at the monthly executive meetings. I am grateful that some very capable people accepted my 'invitation' to serve on these committees, it has made that aspect of my job so much easier.

Also this year, the Southern California Section of the ACS is hosting the Western Regional Conference of the ACS jointly with the Society of Applied Spectroscopy. The meeting to be held at the Pasadena Hilton, Oct. 20-23, will include an employment clearing house, workshops on laboratory software, thermal analysis, a scientific equipment exhibit and laboratory waste management. About 250 scientific talks covering all aspects of chemistry are scheduled.

Roger Bauer. See the story on Dr. Bauer's retirement elsewhere in this *Newsletter*.

A. J. (Jack) Berry. See the story on Dr. Berry's retirement elsewhere in this *Newsletter*.

Stuart Berryhill continues to serve as secretary of the Southern California Section of the American Chemical Society.

Annie Bianchino. After serving for five years as a full-time lecturer in the department, Annie has accepted a tenure-track position at Fullerton College. There, in addition to teaching courses in chemistry, she will be responsible for developing computer-assisted instructional programs. Annie has been a popular and effective instructor in our department, and we will miss her presence. She first joined our faculty in 1981 as a part-time lecturer in biochemistry and left the department in 1984 to pursue a doctorate, returning again after completing her PhD in biochemistry.

Jeffrey Cohlberg. I've had a busy year teaching biochemistry laboratory and physical biochemistry, and getting my lab started up again after my sabbatical leave. Our work on characterizing intermediates in the assembly of neurofilaments (NF) was presented both at the 1992 Gordon Conference on Intermediate Filaments and the Cell Biology meeting last November. We're continuing this work in addition to extending previous studies of NF phosphorylation. (NF have now been implicated in the etiology of amyotropic lateral sclerosis—see the April 9th issue of *Cell*.) A short article of mine concerning textbook errors in presenting keratin structure will appear soon in *Trends in Biochemical Sciences*. Currently my lab group includes four undergraduates: Howard Hughes Summer Scholars, Tan Tran and Teresa Streifel; Minority Biological Sciences Research Support student, Mario Apodaca; and loyal volunteer and new father, Greg Wilson.

Dorothy Goldish. In the fall, I was honored with an invitation to deliver a Legacy Lecture, one of a series in which long-time members of the faculty are invited to speak about anything they would like—as if that were the last chance to speak to those coming after them in the university.

I served as chair of the Academic Senate in 1992-93, and have been re-elected for another term in 1993-94. The Academic Senate is the elected representative body of the faculty, with

additional representation from students, staff and administration. I am the second member of the department to serve as chair of the Academic Senate. Dr. Edwin Becker (now emeritus) held that position in 1969-70.

As Senate chair, I am responsible for representing the faculty in a variety of ways, ranging from campus meetings to things like testifying before the State Assembly Higher Education Committee and responding to reporters' questions about the effects of the campus' budget problems. In the coming year, I will serve as one of the three faculty members on the committee that advises the Trustees on the search for a new president for the university.

Edwin Harris. In addition to his talents as an organic chemist and teacher, Ed is an accomplished musician: pianist, harpsichordist, recorder and viola da gamba player. In recent years his interests have turned to Renaissance music, and he has concentrated on the viola da gamba, an ancient instrument and forerunner of the cello, which is played by holding between the legs (thus *da gamba*). He is a member of L'Antica Musica Consort, a group of instrumentalists and vocalists that performs Medieval, Renaissance and Baroque music on replicas of period instruments while wearing period costumes. This group, replete with photographs, was featured in the *Community Digest* section of the *Los Angeles Times*, on Oct. 22, 1992. He is also a member of the Silver Lake Baroque Ensemble.

James Jensen. See the story on Dr. Jensen elsewhere in this *Newsletter*.

Gene E. Kalbus coauthored a paper titled, "Determination of CO_2 in Carbonated Beverages," presented at the national ACS meeting in Denver on April 1.

Van T. Lieu has a paper, "An Efficient and Inexpensive Devise for Measurement of Gas Volume," soon to be published in *J. Chem. Educ.* He presented a paper titled, "A laboratory Experiment for the Analysis of Caffeine by Solid Phase Extraction and High Performance Liquid Chromatography," at the ACS national meeting in Washington, D.C., August 1992.

Robert Loeschen. I am back teaching the year course in organic chemistry after a short stay in Chem 200 (for nursing and home economics students). In addition to teaching, I have been involved during the last three years with attempts to renovate Peterson Hall 3 (Science 3). It's hoped that the first phase will be completed sometime this fall, and we can get the ceilings back in our hallways and have the heat and ventilation restored. (We've endured two winters without heat!) As half-time acting associate dean of facilities for our college, I have been coordinating our efforts to secure funding for a new building and to complete the renovation of Peterson Halls 2 and 3. Because of the State's financial condition, this has been a slow and frustrating task.

Marco Lopez. Cynthia Ybarra and I attended the 204th national meeting of the ACS in Washington, D.C., where Cynthia made two oral presentations and one poster presentation on her work with flash-photolysis of CO-iron porphyrin complexes; I made a poster presentation on my computer simulation of myoglobin O_2/CO systems.

Two of my students, Cynthia Ybarra and Sherry Smith, presented their work at the Seventh National Conference on Undergraduate Research in Salt Lake City.

Cynthia Ybarra and Juan Noverone gave talks on their work at the 12th Southern California ACS Undergraduate Conference held at Loyola Marymount University. Cynthia was awarded a plaque for making the best presentation in her section!

In October 1992, the NIH asked me to be a member of two *ad hoc* site-visit committees that reviewed grant proposals. These grant proposals were applications made by Coppin State College in Baltimore, Md. and the Pontifical Catholic University at Ponce, Puerto Rico. These site visit reviews for the NIH require a lot of time, but do offer the opportunity to visit other institutions and learn about their methods of instruction.

In February of this year I served on a National Science Foundation panel to review applications made to the Instrumentation and Laboratory Improvement (ILI) program. The committee reviewed 18 proposals.

Alex Greer is writing his master's thesis; he has been determining the mechanism of oxidation of iron(II) porphyrins by dioxygen in the solvent dimethyl sulfoxide. We plan to submit his work for publication.

Tom Maricich. This past year I returned to full-time teaching. Two undergraduate students, Ali Borazjani and Tran Ta, have been assisting me in getting my research lab and projects going again. Tran received a Howard Hughes Summer Fellowship. My involvement with the Chemistry and Biochemistry Corporate Campaign this year gave me the opportunity to meet and speak with a number of alumni. I look forward to contacting others next year. I continue to serve as a consultant/expert witness for chemical litigation cases. These opportunities provide excellent applications of chemistry in practice to help spice up course lectures.

Kenneth Marsi has been reelected for three additional years as department chair. He received the Outstanding Lecturer Award from the Student Affiliates of the ACS at the annual Awards Luncheon.

Darwin Mayfield (Professor Emeritus) became a 50-Year Member of the ACS, as documented in a long list of names given in the May 10 issue of *C&E News*. He joined the ACS in January 1943, during World War II. At the time, he was working in laboratories at the University of Chicago on one of the projects directed toward the synthesis of volatile compounds of uranium. He is currently planning for the fourth year of what has been a highly successful Forum for High School Chemistry Teachers. The forum brings to campus a group of 16 area teachers for a monthly meeting and dinner. A typical program will include discussion of an article from a recent issue of *J. Chem. Educ.*, a presentation by a

continued

guest expert from our faculty and lecture/lab demonstrations by the participants.

Margaret Merryfield. The Merryfield lab welcomed several new students. Aneisa Young and Khanh Van (a Howard Hughes Scholar) are working on phosphorylation of acetyl CoA carboxylase, while Judith Ramillano and Harrison Chang are studying the phosphorylation sites of branched chain *alpha*-keto acid dehydrogenase (BCKDH). Kevin Merkes spent the spring semester looking at the effect of various cobalt complexes on BCKDH kinase. This summer he is an American Heart Association Fellow in San Diego.

We also welcomed a high school student, Urica Jackson, who was participating in an NSF Young Scholars program. In June, Urica gave a talk at the Southern California Academy of Sciences meeting on limited proteolysis studies of BCKDH. In January, Martin Rocha traveled to Albuquerque to give a poster presentation on regulation of BCKDH kinase by salts.

I spent the fall semester on a sabbatical 'in residence,' which basically means that I worked in the lab and said "no" to most of the committee offers that came my way, while dealing with such distractions as jury duty and the restructuring of introductory biology.

At the beginning of the spring semester, I had the opportunity to represent the university at a meeting sponsored by the American Association for Higher Education on faculty roles and rewards. The messages included that times are tough, that what outsiders (like legislators and parents) think universities should be doing isn't necessarily a good match for what most faculty think and that change is inevitable.

Kensaku Nakayama. Dr. Nakayama spent three weeks this summer at Montana State U at an NSF-sponsored course in NMR spectroscopy. He reports, "master's student, Patrick Middleton, with the assistance of undergraduates Steven Dell and Dan Foster, has achieved a very stereoselective synthesis of a series of homopropargyl alcohols possessing two chiral centers. Meanwhile, Hossein Razavi, also an MS student, has found that a Lewis acid system based on boron can function as a catalyst in the silyl cyanation of aldehydes under appropriate conditions. Modest asymmetric induction can also be achieved with these catalysts. Hossein will be entering the PhD program in chemistry at the U of Arizona in the fall of 1993. Our new Bruker AC 400 MHz FT NMR will be a tremendous asset in facilitating our research as well as upgrading the undergraduate instruction in spectroscopy in physical and organic chemistry."

Henry Po. I have been developing new experiments for the second semester laboratory course in general chemistry. These experiments will give the students an opportunity to work with digital pH meters, electrochemical cells and modern spectrophotometers, and they will be implemented this coming fall semester.

Kenny Huang, Davide Tenaglia and Stephen Westerhout—new students in my research group—will work in kinetics and electrochemistry. William (Wing) Poon graduated last December and is working at Watson Laboratories. Hoan Le received his bachelor's degree in May, and Shu-Chin Shen is writing her thesis this summer.

Kimberly Schugart. This summer graduate student, Melanie R. Concepcion, officially received her master's degree, with her thesis titled, "An *ab Initio* Study of Sulfur Trioxide Hydrates: A Perspective on Tropospheric and Stratospheric Stability." Melanie works as Extractions Supervisor at Pace, Inc., an environmental testing laboratory in Huntington Beach. Two CSULB undergraduates, Reyland (John) Pajaro and Dana Haley, along with returning student Carolyn Goering, begin projects investigating the structural changes of amino acids upon loss or gain of an electron. These studies are important since electron loss or gain in proteins, such as our skin (and ultimately their amino acid building blocks), is associated with the ozone hole's increase in the amount of ultraviolet radiation reaching the earth's surface. I spent four weeks at Sandia National Laboratories investigating the photochemical isomerization of 1,3-cyclohexadiene to 1,3,5-hexatriene isomers. We used computational chemistry approaches to calculate excited-state singlet wavefunctions.

Nail Senozan. My visits to Turkey, which have now become yearly, are partly vacationing and partly consulting with colleagues at Ege University in Izmir. This summer, my wife, Diane, and the children joined me, too. The university put us up at its guest house, a luxurious Victorian mansion built around the turn of the century for a British tobacco merchant.

At CSULB this past year, I enjoyed teaching general and physical chemistry. Dr. Devore and I and Debbie (Simon) Allison, who just completed her MS thesis, are working on a mathematical model for estimating oxygen transport efficiency of hemoglobin the presence of carbon monoxide. A paper titled, "Hemoglobin as a Remarkable Molecular Pump," is scheduled to appear in *J. Chem. Educ.* later this year. The paper was co-authored with Erica Burton, who graduated last year with a degree in marine biology.

Leslie Wynston. With Jack Berry's retirement, I've gone back to teaching clinical chemistry again, in addition to other biochemistry courses. I'm still chair of the Pre-Health Professions Advising Committee and represent our College on the University Planning and Educational Policies Council. This past year I've had the opportunity to go on several trips abroad, including China, Russia, the Central European countries and Western Europe. These have all been very enlightening experiences, especially those in the former communist countries. Even with our problems here at home, it's always a pleasure to return.

Department Acquires 400 MHz NMR Spectrometer

Left to right: Dr. Peter Baine; Robert Soukup, Instrument Technician; Dr. Kensaku Nakayama; and Dr. Ken Marsi

By Kensaku Nakayama

During the middle of the fall semester of 1992 our department received its AC 400 MHz Bruker Fourier Transform NMR spectrometer. This instrument is equipped with a quadro-nuclear probehead which allows the observation of ^{1}H, ^{13}C, ^{31}P and ^{19}F nuclei, switchable completely under computer control. Furthermore, an accessory multinuclear probehead with digital tuning covering the range from ^{31}P to ^{109}Ag with ^{1}H decoupling came with the instrument. The instrument's true versatility is evident when considering its capability of executing practically any two-dimensional experiments including COSY, NOESY,ROESY, TOCSY and heteronuclear correlations.

Since the heart of the instrument is its superconducting magnet, the cryogenics involved in maintaining the necessary supercooled condition is not a trivial consideration. The liquid helium dewar surrounding the magnet is filled approximately every three months, while the liquid nitrogen dewar required to cool the liquid helium requires a weekly refill. These chores have been performed mainly by Bob Soukup with the chemistry faculty assisting him when possible. Bob also has fashioned an air line with filter system to the magnet so that the sample spinning can be performed cheaply.

Meanwhile, the organic chemists have made extensive use of the instrument in Chem 422 (Identification of Organic Compounds) and Chem 321B (second-semester organic chemistry) for structural analysis of unknowns and compounds synthesized. The instrument also is used as a research instrument. For example, my students have begun employing the instrument for the analysis of enantiomeric excess of optically active compounds which they prepare during the course of their research.

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

We enjoy hearing from you. The information which you send about your career is sometimes shared with Chemistry and Biochemistry majors who are thinking ahead about their life's work. We have an Alumni Bulletin Board where communications from alumni are posted for faculty to read, and I can assure you that they are read with great interest! All degrees noted in the following listings are in Chemistry unless otherwise specified. Alumni having both a bachelor's and master's from our department are listed under the year they received their bachelor's.

1958

Philip L. Anthony, BS (MS, U of Hawaii), is presently serving as president of the Board of Directors of the Orange County Water District. The district is one of the world's leading ground water management agencies and also operates two advanced water recycling facilities. It maintains one of the largest water chemistry laboratories in the country. Readers of the *Newsletter* are welcome to tour the laboratory and water treatment facility.

1959

William I. Rogers, BS, formerly with Martin Marietta, TRW and Lindberg Corp., is now "semi-retired and a bloody orange grove farmer."

1961

Fred H. Dorer, BS (PhD, U of Washington), continues as vice president for Academic Affairs at California State University, Bakersfield. "Both of our sons are now graduate students, one in Middle Eastern Studies at the American University in Cairo, and the other in the MD/PhD program at the University of Washington."

Arie A. Passchier, BS (PhD, U of Washington), celebrated his 25th year with Rockwell where he is senior engineering specialist. His older son is a freshman at UC San Diego, and his younger son will begin UCLA in the fall.

1963

Joanne Farvolden Myers, BS (MS 1967), is an industrial hygiene consultant for the State Compensation Insurance Fund, and lives in Sacramento. "I have been certified since 1989 as an Industrial Hygienist, and since 1991 as a Hazardous Materials Manager. I am currently president-elect of the Sacramento Section of the AIHA and am coordinating our fall conference, 'Pollution Prevention.'"

1964

Per B. Christiansen, BS, is president and chief executive officer of Nalco Fuel Tech in Naperville, Ill. This is a joint venture company in the air pollution control market, and its technology is aimed at NO_x reduction from stationary combustion sources.

Beverly J. Garrigues, BS (MA, National University). "After teaching high school chemistry for many years, I have migrated into the field of counseling. I have my own practice in Temecula as a marriage, family, child and individual counselor. My daughter, Trisha, is a second generation graduate of CSULB (1992), and has been accepted as a graduate student in the College of Veterinary Medicine at UC Davis. My husband, Bill, a 1969 CSULB graduate, is senior scientist for Hughes Aircraft, and son, Jonathan, is a music major at Westmont Christian College in Santa Barbara."

William Timberlake, BS (MS UCLA) is a chemistry faculty member at Los Angeles Harbor College. Tim is treasurer of the UCLA Chemistry Alumni Association for 1992-93.

1966

John Leeb, BS (MS 1972), is chief chemist at the Naval Weapons Station in Seal Beach.

1967

David R. Fagerburg, BS (PhD 1970, U of Washington), is research associate in polymer chemistry with Eastman Chemicals Division of Eastman Kodak Company in Kingsport, Tenn. He received the 1993 Speaker of the Year Award for the Northeast Tennessee Section of the ACS in recognition of his contributions to chemistry.

Dennis Fost, BS (PhD, Purdue U), is vice president for Marketing and Commercial Development for Mona Industries, Inc. in Paterson, N.J.

Marc Kasner, BS (PhD, Purdue U), is professor of Chemistry at Montclair State College in Upper Montclair, N.J. "I have been at Montclair for 20 years and am the resident physical chemist. In addition to teaching general and physical chemistry, I have a modest research program involving electrochemistry of organometallics. I have two children, Jessica (14) and Marc (12)."

William Lake, BS, MS 1969 (PhD 1973, Purdue U) is director of Research and Development for the Biotech Group in Immunotherapy for Baxter Healthcare Corporation. Bill continues as co-chair of the CSULB Chemistry and Biochemistry Department's Corporate Campaign Committee. He has been named as a community representative to the Dean's Search Committee for the College of Natural Sciences and Mathematics.

1968

Donald J. Ferm, BS, after nearly 20 years in Consumer Product Research with US Borax, transferred to industrial products in 1988 when the company sold consumer business to Dial Corp. Since then he has been involved in process and product development for the FIREBRAKE line of zinc borates utilized as flame retardant additives in the plastics industry. He works in Valencia.

Raymond E. Ouellette, BS, is manager of Environmental Services for Mittelhauser Corporation in Laguna Hills.

1972

Leon Lazarus, MS, is an environmental scientist with the US Environmental Protection Agency in Edison, N.J. "As part of my outreach effort to educate the regulated community about quality assurance issues, I have assisted Westchester Community College to develop a series of seminars on environmental monitoring."

1973

Paul Yankey, BS (MS, Cal Poly Pomona; MS USC), is a PhD candidate at USC in environmental engineering and lives in Long Beach.

1974

Sherin S. Abdel-Meguid, MS (PhD 1977, U of Nebraska), is associate director with SmithKline Beecham in King of Prussia, Pa. He was a postdoctoral associate in protein crystallography at Purdue University and Yale University before joining Monsanto in 1984, where he soon became senior group leader and head of Biophysical Sciences. In 1990, he moved to SmithKline Beecham pharmaceuticals where he is an associate director in the Department of Macromolecular Sciences. He has been involved in a

number of research projects including the design of potential therapeutic molecules for the treatment of hypertension, inflammation and AIDS.

Mary Mallander, BA (MD Georgetown University) is in private practice. She and her husband, Dr. Chris Cain, a biochemist, and four children, Kathleen (11), Emily (9), Paul (6), and Peter (4) live in Redlands.

Rik Tuinstra, BS (PhD 1978, U of Wisconsin) is employed by Dow Chemical where he does polycarbonate process work. He and his family live in Midland, Mich.

1976

Donald Crider, BA, is employed by Analytical Controls as a sales and support engineer specializing in sales and service of gas chromatographs for the petroleum industry. Donald lives in Dana Point.

Goko Hideki, MS Biochemistry, is assistant professor at Kobe University, Kobe, Japan.

1977

Rex Thornhill, BA (DPM 1988, California College of Podiatric Medicine), worked seven years in industry as a process engineer with Hughes Aircraft (Los Angeles), Texas Instruments (Houston) and Honeywell (Minneapolis). He entered medical school in 1983 and now has an established practice in Paso Robles.

1978

Betty Jane Burri, MS (PhD 1982, UC San Diego), is a research scientist with Western Human Nutrition Research Center/US Department of Agriculture in San Francisco. A recent study conducted by Dr. Burri showed that low carotene diets appeared to cause changes in oxidative damage and hormones.

Norman Hegler, BS (PharmD 1992, UC San Francisco) is clinical pharmacist specialist with Kaiser Permanente. He and his wife, Rosalyn, live in San Diego and have a son Daniel (2-1/2).

Melanie Grady Patterson, BA, is quality engineer specialist with Northrop in Pico Rivera. She and her husband, Rod, a pharmacist, have four children and live in Diamond Bar. She oversees the activities of eight chemists and technicians.

1979

Michael Carr, BS, after gaining 10 years of experience with Hughes and General Dynamics in England, has moved to Portland, Ore., and has established ITMS, a growing and profitable electronics company.

Stephen Fritch, MS, MPA 1992, is lead criminalist with the Long Beach Police Department. He and his wife, Sally, recently acquired an amateur radio license and are enjoying their new hobby.

Tom Johnson, BS (MS 1982, U of Washington), is a freelance photographer with the firm of Gorman and Dannehl.

Robert P. Malden, MS, is the owner of Killdee Scientific Glass Company in Santa Fe Springs and lives in Signal Hill.

Patrick McKay, MS, is senior research associate with Genentech, Inc., in South San Francisco where he has worked for the past 13 years. The McKays have two children, Brian (7) and Allison (3). His work presently is in process development.

Fred McKibben, MS (MD 1984, USC) and his wife, Dr. Diane McKibben, announced the arrival of a daughter, Elizabeth Claire, on March 9. The McKibbens also have a son, Jeff.

Tony McLaughlin, BA (DDS 1983, U of Washington), is a self-employed dentist in Redmond, Wash. He plays in golf tournaments and recently obtained his private pilot's license.

Ba Thu Nghiem, BS, (PhD 1984, U of Kansas), is senior formulation development pharmacist for Fort Dodge Laboratories in Fort Dodge, Iowa.

1980

Brian C. Dubow, BS, is senior program manager and chief engineer with NASA SpaceLab Lifescience Payloads, UC San Diego Department of Medicine.

K. Scott Marsi, BA (MS 1983, San Diego State U), is national sales manager, Surfactants & Specialties Group, for Rhone-Poulenc, Inc. He and his wife, Linda, and daughters, Aiko (5) and Kimiko (1), live in Lawrenceville, N.J.

Cheryl Shimazu, MS, is assistant professor of Chemistry at Cerritos College in Norwalk. "It is my fourth year teaching at Cerritos College. I have been quite busy revising both the quantitative analysis and introductory chemistry courses. My husband, Hide, and I have been enjoying raising our two sons, Matthew (8) and Mark (6)."

1981

Tom Harmon, BA (MA Chemistry 1983, USC; MD 1987, U Pittsburgh), is a surgeon with the Thomas-Davis Medical Centers in Tucson, Ariz. He and his wife, Beth, have a son, Tyler.

Richard Hudspeth, MS (PhD 1988, USC), is a molecular biologist and project director at Phytogen, Inc., in Pasadena.

Huong-Anh Ngo Long, BA (MD 1986, UC Davis), specializes in physical medicine and rehabilitation and is medical director of the Rehabcentre in San Pedro Peninsula Hospital.

Paul Manos, BA (DDS 1984, UCLA), is vice president and dental director for DentiCare of California, Inc., in Laguna Niguel. He and his wife, Sue, have two sons: Michael (4) and Jonathan (2).

David L. Smith, BA (DDS 1981, USC), is a self-employed dentist, practicing in La Mesa.

1983

John Berg, BS (MS Civil Engineering 1993, Loyola Marymount U), is Chemist II with the Los Angeles Hyperion-Environmental Monitoring Division in Playa Del Rey.

Sho-Chein Jane Tsuang, MS 1983, a pharmacist with Thrifty Drugs, works in Escondido.

1984

Laurie Brodie, MS, teaches chemistry on a part-time basis at Chadwick School in Rolling Hills.

Dwight Gergens, BS (MS 1986, UC Irvine, MBA 1988), is assisting product manager for Microelectronic Adhesives for Ablestik Electronic Materials in Rancho Dominguez, where he has worked for the past five years.

Paul Mosher, BS, is president of Ceramic Solutions in Redondo Beach.

E. Michael Mosig, BA (DDS Georgetown U), is medical staff dentist at the Arizona State Hospital in Phoenix, Ariz.

Joanne G. Parks, Graduate Student (MD 1988, USC), is a psychiatric fellow at Rush-St. Luke's Presbyterian Hospital in Chicago. "As a specialist in dissociative disorders (including multiple personality disorder), I will be joining the staff of Rush-St. Luke's Presbyterian Medical Center." She and husband, Gary, have two children: Alyssa (6-1/2) and David (1-1/2).

Theresa Rohr-Kirchgraber, BA (MD 1988, Cornell University Medical College), is senior clinical instructor at Case-Western Reserve School of Medicine in Cleveland, Ohio. "I am excited about my ongoing research in graduate medical education and community medicine. My interest in that area has led to presentations on the cultural consideration in the treatment of diabetes. We have two children, Richard and Grace. We would be interested in hosting CSULB students coming to Cleveland for interviews."

Richard Uyehara, Jr, BA, is a petroleum chemist with the State of California and works in Anaheim. He has a 13-month-old son, R.J. Richard would like to make contact with friends from CSULB.

1985

Candyce Thuminh Thai Tran, Student (PharmD 1989), is chief pharmacist at Beirne's Pharmacy in New Haven, Conn.

1986

Elizabeth Brinkman, BS, MS 1987 (PhD 1993, Stanford), is a postdoctoral associate at SRI International Molecular Physics Department in Menlo Park. On June 20, 1992 she and Dr. Greg Scott, an electrical engineer, were married. "The group I'm in develops laser-based diagnostics, principally to study flame and atmospheric chemistry. The project I'm working on studies the hydroxide free radical, an intermediate in much of the chemistry in the atmosphere. I recently had two papers based on my thesis work accepted for publication in *J. Chem. Phys.*"

Katherine Christopherson Kurjan, BS, is senior professional chemist with Allergan, Inc. in Irvine. "We take new and existing drugs and create stable formulations to use for treatment of many ocular diseases," she says.

J. Scott Ewert, Student, received his MD Degree on May 30 from Loma Linda University. His wife, Karen Lynn, also was awarded her MD at the same ceremony.

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

Grant W. Meisenholder, Chemistry Minor, is employed with the Department of Medicine as a research associate at UC San Diego. He supervises use, training and maintenance of the FACScan cytometer and does research involving antigen expression and function. He chairs the Lab Biosafety Committee.

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

Erin Besner Tuccinardi, BA, is senior engineer at Northrop Aircraft in Materials and Processes Product Support and Environmental Technology and works in Hawthorne.

1987

Kelly Carroll, MS Biochemistry, is employed as research associate with Celtrix Laboratories in Palo Alto. He heads the Quality Control Biology Laboratory and performs bioassays and ELISA tests on manufacturing raw materials and finished products.

Brett Kislin, MS, is completing his PhD in organic chemistry at UC Santa Cruz. "Orals will be coming up and thesis research is in progress," Brett writes.

Larry C. Matsumoto, BA, (MD 1993, Creighton University), has begun a residency in Gynecology and Obstetrics in Chicago.

Joel McPherson, BS, after six years as a chemist for McDonnell Douglas, has entered the graduate program in chemistry at CSULB.

Brian Dean Schmidt, BS, laboratory technician IV and shift supervisor with Engelhard in La Palma, performs precious metal assays.

Coleman A. Smith, BS, (PhD 1992, UC Davis), was married in June 1991 to Cathy Hayes, also a chemist who is finishing her PhD in analytical chemistry at UC Davis. "After completing my PhD, I began a postdoctoral position at Los Alamos National Laboratory. I work in the Actinide Materials Chemistry Group, and my current research includes aqueous plutonium chemistry and metal encapsulation by caged carbon compounds."

Gerald Y. Uyesato, BA (PharmD 1991, UC San Francisco), works as a clinical pharmacist at La Habra Community Hospital in La Habra.

1988

Susan E. Boggs, BS, (MA 1992, UC Santa Barbara), is a graduate student in inorganic chemistry, working under the direction of Dr. Peter Ford at UC Santa Barbara. "My work encompasses photochemistry of ruthenium pentaammines, catalysis with regard to mechanistic information concerning C-H activation, and most recently investigations into possible anti-cancer drugs related to photodynamic therapy."

Kerry W. DeGroot, BS Biochemistry (MD 1992, Georgetown U), is a resident in anesthesiology in Washington, D.C. He and Jacqueline Weinecke, MD, were married in the campus chapel at Georgetown University on May 15 of this year and live in Bethesda, M.D.

Keith Hupke, BA, is assistant director of Home Health Care for Anaheim Rx Health Care. He and his wife, Geri Anne, have one son, Alexander.

Jon Lohwasser, BA (PharmD 1992, UC San Francisco), is a pharmacist at Los Alamitos Hospital.

David F. Maynard, MS (PhD 1992, UC Riverside), has been appointed assistant professor of Chemistry at California State University, San Bernardino.

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.

Paul Serra, MS Biochemistry (MD 1992, UC Davis), is a family practice resident at the Latrobe Area Hospital in Latrobe, Pa.

Martha Speckman, BA, (PharmD 1993, UC San Francisco), is a pharmacy resident at Moses Cone Hospital in Greensboro, N.C.

Leo J. Stemler, Jr, BS, is an applications chemist with Unocal Corporation in Fullerton. He is chair-elect and program chair for the Orange County Section of the American Chemical Society for 1993. "I help design water treatment plants; my duties include bench scale testing, pilot plant operation, full-scale plant start-ups and some analytical work."

1989

Sean Avera, Student 1989, received degrees of DDS and MS in Oral Biology simultaneously at the School of Dentistry Commencement at UCLA, June 13.

1990

Bahared Bahadini, BA, is a medical student at Chicago College of Medicine.

Marcel Goldberg, BS, is a medical student at the U of Kansas School of Medicine. He was married to his college sweetheart, Joy Thostesen, in July of 1991.

Jamie L. Hancock, BS Biochemistry, is currently pursuing a Doctor of Optometry Degree at UC Berkeley. She is also president of a student organization that provides vision care to underdeveloped countries. Jamie is conducting research for her OD thesis requirement, "Fluctuation of Refractive Error and Visual Acuity in Patients Who Have Had Radical Keratotomy Surgery."

David J. Lennon, BS, recently was promoted to manager of the Field Chemistry Department for IT Corporation in Wilmington. "I had the opportunity to hire two CSULB chemists," David says.

David Porzio, BS Biochemistry, is a medical student at UC Irvine College of Medicine, beginning his senior year. He is interested in specializing in anesthesiology.

Ming F. Yuan, MS, is a chemist with Pace, Inc. in Huntington Beach.

1991

Kimberly Corkery, BS, lives in Roanoke, Va. She is a "domestic engineer" and tutors high school and college students to keep up with her chemistry.

Miki Aurang Csintalan, BS Biochemistry, has completed her second year of medical school at Washington University in St. Louis, Mo., where her husband, Rick, has finished his first year of medical school.

Carina Fryer, BA, is an analytical chemist with Pyramid Laboratories in Costa Mesa.

Eloisa Gonzalez, BS Biochemistry, is a medical student at the Stanford Medical School. "I am conducting research on the use of simultaneous interpretation vs. sequential interpretation between patients and physicians to help eliminate language barriers between these two groups of people."

Rong J. Guan, MS Biochemistry. "I have finished my two-year NIH postdoctoral fellowship at Boston University School of Medicine. In June, my wife, Ming Ping Liu (a Biochemistry graduate student 1990-91), and I moved to New York City where we will begin our three-year internal medicine residency training at St. Luke-Roosevelt Medical Center. Our son, Patrick, is almost 3 now."

Sharon M. McKelvey, BS Biochemistry, is a student at the College of Osteopathic Medicine in Pomona.

John D. Molloy, BA, is employed with Acuson as an environmental and safety engineer. John was married to Mia Dhondt on July 24.

1992

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

Giap Minh Nguyen, BS, is a seminarian and a first-year theology student in the Master of Divinity program at the Sacred Heart School of Theology in Hales Corner, Wis.

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

Kelly D. Robinson, BS Biochemistry. "I'm just completing my first year of medical school, and I'm probably headed in a primary care direction."

Samuel Sperry, BS, works for the inorganic section of Certified Testing Laboratories in Signal Hill. "I was married shortly after graduating, and I will begin a PhD program in Chemistry at UC Santa Cruz this fall."

Greg Whitaker, BS Biochemistry, has completed his first year as a medical student at the Scholl College of Podiatric Medicine in Chicago.

Shawn Misialek, Chemistry Award recipient

Current Activities of Some of Our 1992-93 Graduates

Jayan R. Bhakta, PharmD program, USC

Nadia Bybee, Self-employed

Brian K. Culligan, Optometry School, Southern California College of Optometry

Joanne Dao, PharmD program, USC

Steven J. Dell, PhD program, Princeton University

Roy Q. Guillermo, Baxter Healthcare, Santa Ana

Jolene C. Kanda, MS program, San Diego State University

Charles Lindeman, Targhee, Inc., Environmental Consultants

Martha E. Lopez, Research Associate, UC Irvine School of Medicine

Derrick Myers, MD program, UC Irvine

Jose E. Meza, PhD program, UC Berkeley

Shawn Misialek, PhD program, Purdue University

William Poon, Watson Laboratories, Corona

Kelly D. Robinson, MD program, Medical College of Wisconsin

Claudia E. Rodriguez, PharmD program, USC

Robert M. Rzasa, PhD program, Texas A&M University

Robert D. Smith, American Honda Corporation

Samuel Sperry, PhD program, UC Santa Cruz

Robert "Chip" Stevens, Beckman Instruments, Fullerton

Jana L. Van Meter, Beckman Instruments, Fullerton

Jeffrey M. Whitaker, MD program, Medical College of Wisconsin

Staff News

Burt Codispoti, instructional support technician, is the newest addition to the stockroom staff. He hails most recently from Seattle, Wash., where he was employed as a technician at a small cancer research foundation. There, a lot of practical work in molecular/cellular biology helped prepare him for his new work, complementing the training he received as a student and instructional support technician at Humboldt State University (BS Chemistry, BA German, 1991). Burt enjoys Italian cooking, playing music and practicing his German with friendly comrades among the department's faculty and students.

Judy Ferraro, secretary. Jeannette and I both hit milestone birthdays this year; we are now permanently 39! We moved back into PH 3 (Science 3)—no heat or air-conditioning, but rain puddles everywhere. However, I count my blessings each day. My mom (who was very sick in May) is making a miraculous recovery, and both of my sons visited from Boston this summer.

Department Secretaries: Judy Ferraro (left) and Jeannette Santage

Joyce Kunishima, director of laboratories. Losing one-third of our technical staff due to budget cuts last year made this year one of the most challenging ever. Somehow we made it through. We now have two superb technicians, Anne Nguyen and Burt Codispoti, and the stockroom is running very well.

Anne Nguyen, instructional support technician. This is my eighth year working at CSULB, and the most difficult because of the budget crisis. Being a mother of three children, a full-time employee and the wife of a busy husband (Dr. Richard Nguyen is professor of Civil Engineering at CSULB) keeps me quite busy.

Jeannette Santage, department secretary. This was a very busy year for us. I got to talk with many of our alumni when planning our first-ever donors reception. My continuing interaction with our students and alumni is really what keeps me going here. Thanks!

Bob Soukup, electronics technician. This past year has been a most interesting and challenging one for me, especially with the delivery and set up of the new 400 MHz NMR. I have taken on the "care and feeding" of the super-conducting magnet, and I am becoming quite proficient at satisfying its ravenous appetite for liquid nitrogen and treating it to a drink of liquid helium occasionally (when it demands something "cool and refreshing").

This spring my family and I had the pleasure of visiting with Bob Clark, the former glassblower for Chemistry, and his family at their 7-1/2 acre ranch near Grants Pass, Ore. Bob is retired and spends his time tending his land and acting as "Mr. Mom" for his son, Robbie, while his wife is at work.

On-Campus Reception for Donors. *Left to right:* ***John Nelson ('69), Stephanie MacLean ('78), Kurt MacLean ('78)***

Where Are They Now?

Katrina Brinkman, student assistant in the Chemistry/Biochemistry Office 1986-92, lives in the San Francisco Bay area and works as a designer for a furniture company.

Dr. Margaret "Peggy" Kline, Lecturer 1984-88, received tenure at Santa Monica College where she is a professor of chemistry. "One former general chemistry student of mine was first out of 350 in organic at UCLA! I'm still horseback riding. In fact, I even have a 'new' horse," she says.

Dr. Richard Partch, Visiting Lecturer 1980-81, is professor of chemistry in the Department of Chemistry at Clarkson University in Potsdam, N.Y. "I continue to enjoy a 'booming business' in the field of materials. My expertise in organic chemistry fits very nicely the needs of others in ceramics, electronics, imaging, etc." He is also a member of the Center for Advanced Materials Processing, a $24.5 million institute located on the Clarkson campus and dedicated in May.

Dr. Louis Perlgut, Professor, 1965-82, Part-time Faculty 1982-92, has "retired" again as a part-time faculty member at CSULB. He is presently a part-time faculty member at Saddleback College and lives in Rossmoor in Laguna Hills.

Dr. A. G. Tharp, Faculty Member 1959-87, Emeritus Professor 1987. Dr. Tharp spends half his time in his home in Manila, The Philippines, and the other half in his "Ole Kentucky Home" in Louisville. Dr. Tharp has had some major health problems recently, including a thromboendarectomy, open heart surgery with five by passes and has had a pacemaker implanted.

Dr. Grant Willson, Lecturer 1973-74, is a Fellow at IBM at the Almaden Research Center in San Jose. He was elected to the National Academy of Engineering (1992), received the ACS Carouthers Award (1992) and the ACS Chemistry of Materials Award (1991). "I enjoy reading the *Newsletter*, and greetings to my 'old' colleagues."

Dr. Andrew Wong, Lecturer, 1982-84, Professor of Chemistry at Occidental College 1984-93, has resigned his position at Occidental College to enter his father's business in Taipei, Taiwan.

Honors to 1992-93 Graduates and Continuing Students

Cynthia Albert	*Organic Chemistry Award (Merck Index); Alumni Award*
Leticia Arellano-Summer	*Election to Phi Lambda Upsilon*
Oren Beske	*Biochemistry Award; Alumni Award; Howard Hughes Award*
Keith Bogdon	*Horalek Memorial Award for Service; Departmental Honors; Alumni Award*
Michael Bundy	*Johnson Outstanding Thesis Award*
Monique M. Chhour	*Election to Phi Lambda Upsilon*
Jane M. Chong	*Dean's List*
Brian Culligan	*Howard Hughes Award; Election to Phi Lambda Upsilon*
Steven Dell	*Organic Chemistry Award (Merck Index); Alumni Award; Analytical Chemistry Award; Henderson Memorial Award; Election to Phi Beta Kappa; Howard Hughes Award*
Thang Dinh	*Organic Chemistry Award (ACS Polymer Division); Alumni Award; Stern Memorial Award in Physical Chemistry; Howard Hughes Award; Election to Phi Lambda Upsilon*
Nancy J. Gardner	*Election to Phi Lambda Upsilon*
Kristina M. Gaus	*Election to Phi Lambda Upsilon*
Eloisa Gonzalez	*David Scoggins Award*
Carolyn Griffith	*Freshman Chemistry Award (CRC Handbook); Alumni Award*
Dana A. Haley	*Election to Phi Lambda Upsilon; Howard Hughes Award*
Chi Su Ham	*Dean's List*
Brent Harpham	*California Foundation for Biochemical Research Summer Fellowship*
Jerry Henry	*Freshman Chemistry Award (CRC Handbook); Alumni Award*
Shih-Chien Huang	*Election to Phi Lambda Upsilon*
Nhung A. Huynh	*Election to Phi Lambda Upsilon; Howard Hughes Award*
Michael R. Lewis	*Dean's List*
Charles Lindeman	*Election to Phi Lambda Upsilon; Howard Hughes Scholarship*
Dao S. Lim	*Dean's List*
Thomas Ly	*Advisory Council Award, Outstanding Graduate Student; Alumni Award*
Marla Meraz	*Rhodes Award; Howard Hughes Award*
Kevin Merkes	*Howard Hughes Award; Election to Phi Lambda Upsilon; American Heart Association Fellowship*
Jose E. Meza	*American Institute of Chemists Award; Alumni Award; Outstanding Graduate, College of Natural Sciences and Mathematics; Howard Hughes Award*
Patrick Middleton	*Election to Phi Lambda Upsilon*
Shawn M. Misialek	*Biochemistry Award; Alumni Award; Howard Hughes Award; Election to Phi Lambda Upsilon*
Lauren Miyaguchi	*Election to Phi Lambda Upsilon*
Brett S. Moore	*Dean's List*
Alison D. Moss	*Dean's List*
Brigitte Nguyen	*Scoggins Memorial Award; Alumni Award; Howard Hughes Award*
Vicky Nguyen	*Howard Hughes Award*
Minh K. Phan	*Dean's List*
Susan E. Ramos	*Organic Chemistry Award (Merck Index); Alumni Award; Howard Hughes Scholarship*
Shu-Chin Shen	*Advisory Council Award, Outstanding Graduate Student; Alumni Award; Graduate Dean's List*
Sam Sperry	*Inorganic Chemistry Award; Alumni Award; Henderson Memorial Award*
Robert Stevens	*Howard Hughes Award*
Teresa Streifel	*Howard Hughes Award*
Davide Tenaglia	*Election to Phi Lambda Upsilon*
Rachirong Vinyaratn	*Dean's List*
Julie A. Vincent	*Dean's List*
Kathy Wang	*Howard Hughes Award; Election to Phi Lambda Upsilon*
Mimi H. N. Wen	*Dean's List*
Stephen Westerhout	*Election to Phi Lambda Upsilon*
Jeffrey M. Whitaker	*Howard Hughes Scholarship*

Individual Contributions

Gifts to the department amounting to $17,786, including a second bequest from the Michael Monahan Estate, were received from 103 individual donors between August 1992 and July 1993. If you are considering a gift to the department, 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 are shared among departments.

Each donor will receive a personal acknowledgement from the chair 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. 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 Blvd., Long Beach, CA 90840-3903.*

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**Gifts to the Spyros Pathos IV Memorial Fund. Spyros was a Chemistry major at the time of his untimely death on Jan. 5, 1993.*

Contributions from Organizations

The value of gifts to the department from all sources during the past year was $129,150. Corporations donated $111,364 in cash or in-kind gifts. Most of the cash gifts 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 university's budgets have been reduced each year for the past eight years. The effects of budget reductions have been painfully felt in our department as well. Thus, we have come to depend upon assistance from alumni, businesses and other organizations to meet the expenses of maintaining a quality program in Chemistry and Biochemistry. We are indeed grateful for these gifts!

continued on page 19

Gifts

Particular thanks go to members of the Corporate Fund Campaign Committee: Dr. Bill Lake, Director of Research, Baxter Healthcare, Co-chair; Dr. Evord Knights, Vice President, Unipure Division, Unocal, Co-chair; Jerry Aspland, President, ARCO Marine; Dr. Michael Block, Manager, Unocal; Dennis Dingle, Regional Manager, Linc Quantum Analytics; Kevin Fockler, Regional Sales Manager, Baxter Healthcare Corporation; Dr. John Kuebrich, Manager, ARCO; Kurt MacLean, Attorney, Poms, Smith, Lande & Rose; Dan Moothart, President, American Qualex; John Nelson, Attorney, Morgan, Armbruster, Nelson, Cary and Nelson; Leo Stemler, Applications Chemist, Unocal.

Alumni who want information or wish to assist with the 1993-94 campaign are invited to contact Ken Marsi at 310/985-4941.

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 and in-kind gifts:

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

Dear CSULB Chemistry Alumnus:

The faculty and I hope that you have enjoyed reading our 18th annual *Newsletter* and will take time to send us information about yourself for the next edition. I would also appreciate any comments you might wish to offer about the *Newsletter*—what you enjoy reading, and what you would like to see that has not been included.

Contributions to the Chemistry and Biochemistry Department Alumni Fund also are invited. The CSULB Alumni Office will be informed of any gift. Donations are used for the publication of the *Newsletter*, Chemistry Alumni Scholarships and Awards, and miscellaneous projects which help maintain the quality of our department. You will receive a personal letter of appreciation for gifts in any amount. If you wish to contribute, make your check payable to: ***CSULB Foundation/Chemistry Fund, Department of Chemistry and Biochemistry, California State University, Long Beach, 1250 Bellflower Blvd., Long Beach, CA 90840-3903.***

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Information about yourself (job, further education, family, scientific achievements, etc.) which you would like included in next year's *Newsletter*.

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If you have enclosed a contribution, please enter the amount _____. Thank you! **Kindly complete this questionnaire and enclose in the envelope provided.**

Some 1992-93 Graduates. *Front row, left to right: Michael Manneh, Aaron Bakly, Hoan Le, Dan Foster, Randy Estrada, Dr. Dennis Anjo (Faculty), Dr. Marco Lopez (Faculty), Hossein Razavi, Shawn Misialek. Second row, left to right: Ijedma Mbadughia, Joyce Miyagishima, Ndia Bybee, Elizabeth Riegelhuth, Linda Willhite, Brigitte Nguyen, Maria Laibinis, Nina Bao, Shu-Chin Shen, Joann Dao. Third row, left to right: Julie Szajlei, Kathy Wang, Kelvin Tjon, Steven Dell, Keith Bogdon, Kiana Tabibzadeh, Patrick Middleton, Dr. Kenneth Marsi (Faculty), Dr. Kensaku Nakayama (Faculty), Unidentified. Back row, left to right: Danny Fong, Ann Le, Jolene Kanda, Brian Culligan, Samuel Sperry, Alexander Greer, Dr. Stuart Berryhill (Faculty), Jeffrey Whitaker, Derrick Myers, Robert Smith, Robert Stevens.*