

# THE NATURAL PHENOMENA

SUMMER 2008



## Inside this Issue:

Message from the Dean ..... 1

Commencement and  
Department Accomplishments ..... 2

The Departments of Chemistry and  
Computer Science and Engineering.3

The Department of Physics and a  
Farewell to a Good Friend..... 4

Development Corner.....5

Donor Thanks..... 6

CNS Outstanding Alumnus, Graduate  
and Undergraduate, and In Memory  
Of.....7





## A MESSAGE FROM THE DEAN



B. Robert Carlson, Dean of the College of Natural Sciences

Congratulations to all of the 2008 spring and summer graduates of the College of Natural Sciences. Let me be among the first to congratulate you. All of us – faculty, staff, administration, and family – are very proud of you and what you have accomplished. Whether you are looking forward to additional study next year or entering the workforce, our thoughts and best wishes are with you.

2007-08 has been a very good year for the college. Let me mention a few of the highlights: The renovation of the Biological Sciences Building was completed in May 2007. We have continued to experience difficulty with the water quality in the building, but progress is being made! For those of you who have not seen this building recently, you are not going to believe the transformation! New laboratories, new lecture rooms, new equipment, enhanced technology, new restrooms, paint on the walls, new tile on the floors, etc. This year, we have been renovating the Physical Sciences Building. PS-10 was completed and back in use for the spring quarter. The building is almost completed now and the final inspections are underway. The Department of Physics and the Department of Health Science and Human Ecology will be moving into the facility during July and August. At the end of this building project, all of the CSUSB instructional science laboratories in traditional science degrees will be new, a fact that should greatly improve the effectiveness of science instruction at CSUSB.

CNS continues as the only college to have met its enrollment goals each quarter, which I attribute to an appreciation of the faculty strength, the popularity of the CNS programs among student majors, and effective scheduling of classes by the department chairs. Now I'm fairly sure that faculty and students would have preferred that we had offered more classes on Tuesday and Thursday in the middle of the day, but available facilities make that

impossible to do!

CNS is initiating new undergraduate degree programs that will make popular programs more accessible and create new majors for students. The Department of Biology has been approved to offer a B.A. in biology teaching credential option in an attempt to address the shortage of high school science teachers. The Department of Mathematics has also been approved for a B.A. in mathematics, integrated teaching track to address the shortage of teachers. The department has also approved a new B.S. in mathematics with concentrations in biology, computer science, geographic and information systems or physics.

Our experimental master's degree program in environmental science continues to grow in its second year: four students the first year, 12 students the second year. The Department of Chemistry and Biochemistry and the Department of Geological Sciences are sponsoring this program. For both of these departments, this program represents their first graduate program.

CNS celebrated last year as the first college to achieve its advancement goal in the history of the campus. For the 2007-08 year, donors will contribute more than \$1.3 million in support of departments and programs in the college. The two primary projects that the public is supporting are the building of the observatory (Department of Physics) and broad support for the Department of Nursing. With the difficulty that the state of California has had in providing adequate budgetary support for its colleges and universities, the support of alumni, interested individuals, and foundations has become more important than ever to the quality of the programs that we can offer. Please take time to read about specific gifts that have been received this year in another section of this publication. Perhaps you will discover ideas as to how you might join others in making a difference in the education of others.

Obviously, facilities are crucial to the growth of CNS. Our dependency upon laboratory experiences, both on-campus and off-campus, require that appropriate facilities be available. Construction will begin on a new laboratory facility for nursing near the existing HPE Building. When the nutrition laboratory moves to the remodeled Physical Sciences Building in summer, 2008, the kinesiology department will assume the current basement space for a biomechanics laboratory. As the campus projects its building needs for a campus of 25,000 students, two buildings are being projected for CNS. First is a building to house mathematics, computer science,

physics, and computer engineering programs. A second building being projected is some combination of nursing and biology.

The CNS faculty continues to be the backbone of the college. Its commitment to students and its ability to create a positive environment within which students can learn is unparalleled. I have had the pleasure of being associated with four different universities during my career. Clearly, the commitment to teaching of the CNS faculty is the strongest that I have ever experienced, and that is what a university should be about. This year, three faculty were recognized by the college as being the most outstanding faculty.

Bryan Haddock of the Department of Kinesiology was selected as the Outstanding Faculty in the area of teaching. His commitment to teaching and student needs is well recognized by his students. Dr. Haddock has also received several grants from the National Institutes of Health that have allowed him to help other faculty and students to meet their professional goals.

Chris Freiling of the Department of Mathematics was recognized as the Outstanding Faculty in the area of professional growth. In the 24 years he has worked at CSUSB, Dr. Freiling has published 45 papers in highly regarded refereed journals and has another 14 refereed papers in conference proceedings. Dr. Freiling currently is the principle investigator for a National Science Foundation research grant for collaborative research in the areas of mathematics, computer science, and engineering.

Doug Smith of the Department of Chemistry and Biochemistry was selected as the Outstanding Faculty in the area of service. Dr. Smith gives significant amounts of time to service activities within the department, college, and university. Many new programs within the college have been implemented under his watchful eye as chair of the College Curriculum Committee.

Again, congratulations to all of our graduates. We appreciated your having been a student at CSUSB and hope that, when you decide to further your education, you will once again think of CSUSB. We wish you the best of luck and fortune in your future plans.

Sincerely,

B. Robert Carlson, Dean

# COMMENCEMENT 2008

The College of Natural Sciences' commencement ceremony takes place on June 14, 2008, at 2 p.m. in the Coussoulis Arena on the CSUSB campus. Before a crowd of their family and friends, more than 300 students will receive their diplomas that day. Among those students are several who are being singled out for various honors.

Each year, the college chooses students it determines to be outstanding, both from the undergraduate and graduate student populations. This year, the outstanding graduate students are **Adam Huttenlocker**, from biology; **Jihad Tafas**, from computer science and engineering; **Stephen Mann**, from health science and human ecology; **Chris Duran**, from mathematics; and **Janet Grinyer** from nursing. These students have shown great promise in their chosen fields, and the college is proud to recognize them. The outstanding undergraduate students are **John Uhrig**, from biology; **Richard**

**Nguyen**, from chemistry and biochemistry; **Anthony DeLaLoza**, from computer science; **Shelby Harrell**, from geology; **Cheri Schaffer**, from health science and human ecology; **Mari Mikami**, from kinesiology; **Lyudmila Shved**, from mathematics; **Tracy Matthews**, from nursing; and **Paula Chojnacki**, from physics. These students have worked very hard and richly deserve the honors.

Additional students have received departmental honors. From the Department of Biology: **Neal Dach**, **Justin McAllister**, **John Uhrig**; from the Department of Chemistry and Biochemistry: **Liezl Barrett**, **Michael John Kornoff**; from the Department of Computer Science and Engineering: **Anthony DeLaLoza**, **James Finley**, **Jessiah Ruiz**, **Lori Snyder**; from the Department of Geology: **Shelby Harrell**; from the Department of Health Science and Human Ecology: **Arturo**

**Garcia, Jr.**; from the Department of Kinesiology: **Wynsha Garner**, **Shannon Humphrey**, **Jonathan Martin**, **Mari Mikami**, **Rebecca Schnack**, **Jacqueline Swope**, **Beaudette Tori**, **Chanritha Vong**; from the Department of Math: **Pamela Robles**, **Lyudmila Shved**, **Billy Truax**; from the Department of Nursing: **Olubukola Ajayi**, **Daniela Alcaide-Sprengle**, **Kristal Casey**, **Jenna Chiatovich**, **Rey Fast**, **Nicole Field**, **Cynthia Giden**, **Karen Gomez**, **Samantha Hayward**, **Scott Heywood**, **Sheila Kraft**, **Kristin Lay**, **Ing Liew**, **Jacquelyn Maas**, **Tracy Matthews**, **Jennifer Meister**, **Sherri Myung**, **Renee Negrete**, **Kenny Nguyen**, **Erica Pace**, **Mariana Parada**, **Sarah Rich**, **Cristina Saavedra**, **Jennifer Silverman**, **Christa Sirowy**, **David Sobek**, **Noel Thakkar**, **Alexis Topper**, **Terea Wooster**; from the Department of Physics: **Paula Chojnacki**. The College of Natural Sciences wishes all the new graduates the best of luck.

## DEPARTMENT ACCOMPLISHMENTS

### Department of Biology

The Department of Biology recently moved back into the newly-remodeled Biology Building. The building now houses nine state-of-the-art biology teaching labs, faculty research labs, electron microscopy center, faculty offices and the biology department office. The department continues to grow, with more than 700 majors now, and this year we welcomed three new faculty into the Department of Biology: Dr. Laura Newcomb is a virologist, Dr. Kevin Middleton is a vertebrate anatomist, and Dr. Scott Shaffer is an animal physiological ecologist. The department recently received approval for its "blended program in biology," the first of its kind in the CSU system. This degree option, for students with an interest in teaching at the high school level, combines the B.A. in biology with the single subject teaching credential in biology so that students can complete both simultaneously. We are interested in keeping in touch with alumni, so please contact the Department of Biology at (909) 537-5305 or [dpolcyn@csusb.edu](mailto:dpolcyn@csusb.edu) and get on our contact list.

### Department of Geology

Dr. Sally McGill traveled to Mongolia in 2007 to study the surface rupture of the 1957 Gobi-Altai earthquake and continues her research on the San Andreas fault in Badger Canyon. Dr. Alan Smith and Dr. Joan Fryxell took nine students to Dominica in 2007 for the Research Experience for Undergraduates program, and this research resulted in two posters being presented at the Annual Meeting of the Geological Society of America and two more at the fall meeting of the American Geophysical Union. Past and current students presented their research on Dominica at the 18<sup>th</sup> Caribbean Geological Conference in Santo Domingo, Dominican Republic. Dr. Fryxell is continuing to work on several geologic maps for the Nevada Bureau of Mines and Geology. During the winter and spring quarters, Dr. Hans Schellekens of the University of Puerto Rico at Mayaguez was a visiting professor in the department, working with Dr. Smith on a number of projects related to Caribbean geology. Dr. Erik Melchiorre continues to work on the unusual chemistry of groundwater at the Mountain Pass Mine in California, and with colleagues, published a paper in the *Australian Journal of Mineralogy*. Bonnie Brunkhorst was awarded the Robert H. Carlton

award by the National Science Teachers Association.

### Department of Health Science

HSCI Administrative Service Coordinator Cindy Levin received the Academic Affairs Distinguished Service Award at the 2007 fall convocation. Our faculty serve as editors, manuscript reviewers, grant writers, researchers, presenters, and leaders of regional, national, and international professional organizations. They are outstanding in terms of service throughout the university and community. Student opinions of teacher effectiveness result in high regard for our classroom work. Drs. Dan Fahey and Marsha Greer were tenured and promoted. She is working on the RIMI Grant. He took a sabbatical to conduct research on the Irish healthcare system. Dr. Chris Lindfelt was a welcome addition this year in healthcare management and health services administration. He has begun to master and balance a plethora of important responsibilities.

### Department of Kinesiology

The Department of Kinesiology faculty members have now positioned the department as a leader in the western United States with their teaching, research and service. This past year, faculty members published results of their research in international and national journals and at international meetings in South America and Europe. Faculty members continue to serve on editorial boards of international journals. Moreover, a member of our faculty has secured externally funded grants that now amount to more than \$5 million. I am sure you will agree this is an impressive record of achievement that distinguishes our department from other kinesiology programs. Moving our program forward requires resources. Help us meet our commitment to making CSUSB kinesiology an outstanding program. Please help us by making a generous gift to **CSUSB Department of Kinesiology Alumni Fund** so that we can continue our quest of becoming a leading program in the western United States. Your support is the life-blood of our program. Finally, please accept this as an invitation to visit our department to experience the faculty, students and activities in which we are now engaged.

### Department of Mathematics

The Department of Mathematics' revisions to its bachelor of science degree are pending final administrative approval. The revised degree, due to begin fall 2008, is suited especially for those students planning graduate studies in an area of mathematics, or an interdisciplinary program involving mathematics. Students in the new program will be able to choose either the general track, for those with interests in either pure or applied mathematics, or one of the applied concentrations in biology, computer science, economics, geographic information systems, or physics. The Bachelor of Arts in Mathematics, Teaching Track is approved by the California Commission on Teacher Credentialing. The BATT has been designed to address the new CCTC Standards. In February 2007, the BATT received final approval by the CCTC as a waiver of the CSET Exam. Faculty members who have published papers this year include Dr. Corey Dunn, Dr. Nadia Dyakevich, Dr. Ilseop Han, Dr. Yuichiro Kakiyama, and Dr. Rolland Trapp, who co-wrote his paper with four undergraduate students. Our new faculties are Dr. Giovanna Lloset and Dr. Madeleine Jetter.

### Department of Nursing

The BSN program started at the CSUSB Palm Desert Campus in fall 2007. The MSN degree program was updated into a hybrid format, approved by the Western Association of Schools and Colleges in winter 2008. Drs. Mikel Hand, Mary Molle, Marilyn Stoner, Donna Rane-Szostak and Ora Robinson have been invited to do podium and/or poster presentations at international, national, regional and state conferences during the past year. The department was awarded a California Endowment grant and a State Workforce Investment grant in 2007 to support some of its programs. In 2007-08, CSUSB continued its multi-year partnership with Riverside Community Hospital in educating additional students in the generic BSN program at the San Bernardino campus. Looking forward to the future, an additional new 10-bed nursing skills learning lab is planned for the department, as well as a remodel of the department's existing Media/Computer Lab, which will house 50 computers for use by nursing students.

## THE DEPARTMENT OF CHEMISTRY



Department Chair: David Maynard

**Professors:**

Kimberley Cousins

John Craig

Ken Mantel

Larry Mink

Dennis Pederson

Lisa Shamansky

Brett Stanley

Shumei Yang

**Associate Professors:**

James Noblet

Douglas Smith

John Tate

**Assistant Professors:**

Yu Yung Kim

**Department Office:**

Irene Carrasco

A new science master's in environmental sciences (MSES) was first offered by the department in 2006, and currently has 10 students enrolled. The core curriculum covers a variety of interdisciplinary science courses along with powerful public administration courses, preparing students for leadership roles in business, environmental and government agencies. If you are interested in knowing more about this program, please contact Dr. Brett Stanley, graduate coordinator (bstanley@csusb.edu). Dr. Shumei Yang has made significant progress in her research project this year. Her project is funded by NIH and mainly focused on cytotoxic effects of nicotine on coronary endothelium. She had three papers published in 2007. She had two students, Dario Gutierrez and John Tenayuca, working with her in 2007, and John presented their study at the 41st ACS Western Regional Meeting in San Diego. Dr. Lee Kalbus, Emeritus, published "A Spectrophotometric Study of the Permanganate-Oxalate Reaction" and "Infrared Examination of the Transformation of Barium Sulfate into Barium Carbonate" in the *Journal of Chemical Education*. The 2007-08 Chemistry Club has committed itself to being more student-involved this academic year. The department of chemis-

try and biochemistry has five MASS Scholars studying this year-- Greg Barding senior, biochemistry; research advisor, Dr. Stanley; Michael Kornoff (senior, biochemistry; research adviser, Dr. Smith); Raissah De Los Reyes (senior, chemistry; research adviser, Dr. Cousins); Amber Moras (freshman, biochemistry); and Casey Payne (new transfer student, chemistry). The MASS Scholars program is funded by a grant from the National Science Foundation and recognizes high-achieving students in math and science. Dr. Kimberley Cousins is co-PI of the grant and the MASS adviser for chemistry and biochemistry. John Tenayuca (senior, biochemistry) is participating in the McNair Scholar research program. Following his summer research with Dr. Cousins, he presented his results, "The Computational Prediction of the Cold and Menthol Activated Calcium Ion Gated Channel TRPM8" to both the 16th Annual National Ronald E. McNair Scholars Research Conference in Wisconsin and to the 47th Annual American Society for Cell Biology Meeting in Washington, D.C. John has also been collaborating with Dr. Yang, and presented a poster titled "Nicotine's Affinity for the tetrahydrobiopterin site: A molecular modeling study" at the American Chemical Society Western Regional

Meeting in San Diego. The poster was coauthored by Dr. Cousins and Dr. Yang, as well as by recent CSUSB Biochemistry graduate (and current graduate student at Vanderbilt University), Dario Gutierrez. Alumna Jennifer Bell (BS, Chemistry 2001) is completing her MS in Environmental Science at CSUSB. She has been teaching introductory chemistry laboratories and "Chemistry and the Environment" in our department, and also serving as co-advisor of the Chemistry Club. Dr. David Maynard presented a paper entitled "The Adhesive and Repair Material on Lord Pakal's Funerary Mask: some broader implications" at the SAA Meeting in Vancouver, Canada. As co-director of the California Science Project TRI, he escorted local middle school science teachers on to a day's activities at the Zoological Society of San Diego's center for Conservation and Research for Endangered Species. During the fall quarter, he participated in a week long workshop "Institute for Inquiry" at the Exploratorium in San Francisco. Greg Barding was nominated and received the Outstanding Student of the Year award for his research in transportation issues. The award was bestowed by the Leonard Transportation Center, and Greg is the first CSUSB student to receive this award.

## THE DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING



Department Chair: George Georgiou

**Professors:**

Richard Botting

Arturo Conception

Josephine Mendoza

Owen Murphy

Tong Yu

Kay Zemoudeh

**Associate Professors:**

Ernesto Gomez

Yasha Karant

Keith Schubert

David Turner

Kerstin Voigt

**Assistant Professors:**

Haiyan Qiao

**Department Office:**

Alice Martinez

Monica Latimer

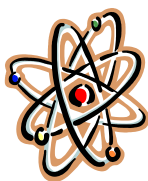
The computer science department celebrated its 25th anniversary with a luncheon on Jan. 31, 2008. The event highlighted the achievements of its faculty, staff, students and alumni. The former chairs of the department were recognized, including Dr. Richard Botting, the first chair, who founded the department in 1983. This year the department of computer science is offering the B.S. in computer engineering and B.S. in bioinformatics degrees. The computer engineering degree is the first engineering degree offered at CSUSB. To strengthen the program, Dr. Haiyan Qiao joined the faculty as an assistant professor in fall 2007. She recently earned her Ph.D. in computer engineering from the University of Arizona, Tucson. She holds the M.S. in computer science from North Dakota State University, and both B.S. and M.S. degrees in electrical engineering from Huazhong University of Science and Technology in China. In fall 2007 the department was visited by a three-member ABET accreditation team for the re-accreditation review of the B.S. in computer science program. ABET is the recognized accreditor for college and university programs in applied science, computing, engineering, and technology. Although the final report of the results will not be avail-

able before July 2008, the provisional results suggest a most positive review, which is a testament to the high quality of our program, faculty, staff, and students. The B.A. in computer systems degree has become more flexible by having five options: game development, graphics programming, system administration, Web programming, and general interdisciplinary. Students choose one of these options in which to specialize. The general interdisciplinary option enables a student to choose a minor in another discipline. Students in the B.A. program have the opportunity to apply their knowledge of computer theory and practice to a problem related to their chosen option when they take CSCI 482, the senior project class. The department hosted its annual Open House on Nov. 30, 2007. It was a great success. Despite the rain on that day, more than 80 students from area high schools, accompanied by their teachers and school counselors, attended the all-day event. Department faculty held sessions in the areas of robotics, computer graphics, algorithm animation, Web development, computer games, bioinformatics, programming languages and data security. Within the sessions there were fun demonstrations, competitions, and quizzes. The purpose of the

event is to showcase department programs and faculty to high school students, their teachers and school counselors. The event also lets students know of career choices that exist within the computing field and, in general, encourages them to attend college. The Computer Science Club has been very active by organizing tutorials on Unix and other subjects, by participating in the open house and the 25th anniversary celebrations, and by helping organize seminars and other activities. The Industry Advisory Board of the department had its second meeting on Nov. 20, 2007. A subject of this meeting was the recruitment and retention of qualified students in the department programs. Also discussed were the skills that students should develop in order to be effective when employed in the industry. Various ways in which industry can play a role, (e.g. via internships, presentations, etc.), were discussed. The department welcomed two new staff members: Alice Martinez joined the office staff as the administrative support coordinator of the department and Birdy Wang joined the technical staff with responsibilities primarily related to the computer networks and labs.



## THE DEPARTMENT OF PHYSICS



Department Chair: Paul Renteln

### Professors:

Paul Dixon

Timothy Usher

### Associate Professors:

Karen Kolehmainen

### Assistant Professors:

Susan Lederer

Laura Woodney

### Department Office:

Maureen Murphy

Dr. Paul Dixon was on sabbatical for the fall quarter. He continued his research into dynamic light scattering in complex fluids. Dr. Karen Kolehmainen served as the physical science content reviewer for a series of elementary school science textbooks published by Pearson Scott Foresman and Millmark Education. These books are used by thousands of children statewide. She also designed and conducted several science workshops for fourth-grade teachers. In addition, she reviewed the content of two astrophysics textbooks. Dr. Sue Lederer received a Cottrell College Science Award from the Research Corporation to begin a new research project with a group of planetary scientists at NASA Johnson Space Center. The project utilizes the hyper-velocity guns at NASA JSC's Experimental Impact Laboratory in Houston, Texas. The experiments, which are scheduled to run from the summer of 2007 to the summer of 2008, are designed to collide minerals commonly found in the dust of comets at very high velocities (2-7 km/s), typical of collisional impact speeds. CSUSB student Ryan Olney took part in a summer internship at JSC and is continuing work during the school year on this project. Initial results were presented at the 2007 American Astro-

nomical Society's Division for Planetary Sciences meeting in Orlando, Fla. Dr. Lederer was also elected to a three-year appointment as a committee member of the DPS. Dr. Tim Usher continued his research into the degradation mechanisms in proton exchange membrane fuel cells. His research is carried out jointly with Brett Stanley from the Department of Chemistry and Biochemistry and Kurt Kloesel from NASA-Dryden, and is funded in part by NASA through the California Space Grant Consortium and the Department of Transportation through the CSUSB William and Barbara Leonard University Transportation Center. Dr. Paul Renteln served again as chair of the department. He gave a seminar to the Caltech combinatorics group in May, and his paper on derangement graphs appeared in the Electronic Journal of Combinatorics. Dr. Laura Woodney attended a conference on bio-astronomy in San Juan, Puerto Rico, and presented a paper at the 2007 DPS meeting. She spent over a month at Lowell Observatory in Flagstaff, Ariz., studying the morphology of comets 8P/Tuttle and 2P/Encke. She also gave talks to various amateur astronomy groups, including the Orange County Astronomers and the Pomona Valley Astronomers, and she presented a

seminar to the University of Redlands, Department of Chemistry. The Society of Physics Students and the Department of Physics sponsored a talk on asteroids, presented by Dr. Robert Gaskell of the Planetary Science Institute. From amongst the physics majors, Karen Lowande was awarded the Fred Kellers Scholarship, Matt Johnson was admitted to an REU program, and Benton Drew secured an internship at General Atomics. The computer engineering program, a joint effort of the Departments of Physics and Computer Science, began this year, and seems to be attracting a lot of student interest. The observatory project continues to receive donations from alumni and members of the community. (Thanks to everyone for their generosity.) Working plans for the Observatory were drawn up by Hill Partnership Inc. We hope to be able to move back from the CS building to the newly remodeled PS building sometime in the summer of 2008. Alumni are strongly encouraged to contact the department so we can keep in touch. E-mail your favorite professor directly (for addresses check out our Web site: [physics.csusb.edu](http://physics.csusb.edu)), or else contact Maureen Murphy at [mmurphy@csusb.edu](mailto:mmurphy@csusb.edu).

## SPECIAL THANKS TO LOU FERNANDEZ



The College of Natural Sciences would like to thank Provost Louis Fernández for all his support and to wish him all the best on his retirement. Dr. Fernández has been part of the CSUSB family since 1991, first as dean of CNS and later as Provost of the campus. Prior to coming to CSUSB, he was professor and chair of the Department of Earth Sciences and dean of the College of Sciences at the University of New Orleans. Dr. Fernández is a geologist, whose Ph.D. at Syracuse University focused on volcanic rocks of the Azores. He continued working in exotic places while at New Orleans, concentrating on field and laboratory studies of Cenozoic volcanic rocks in the Sierra Madre Occidental in Mexico. His contribution to the geological sciences has extended beyond academics through his efforts on innumerable national committees, many of which he chaired, to promote the increased participation of minorities and women in all aspects of the geosciences. As a consequence of this work, the American Association for Higher Education awarded him the Outstanding Support of Hispanic Issues in Higher Education

Award in 2004. Although he initially participated in the geology program at CSUSB, his administrative duties finally forced him from active departmental participation. Within the last few years he has once again become involved in departmental activities by going on field trips to Owens Valley and to Dominica with Alan Smith's and Joan Fryxell's REU program, which provided him a friend (see photo) and managed to keep his tennis shoes a pristine white color (again, see photo) in spite of the rain and the mud. Once again, on behalf of everyone at CNS, thank you Dr. Fernández, and enjoy your retirement.



## DEVELOPMENT CORNER

**San Antonio Community Hospital Supports Nursing at CSUSB**

The Department of Nursing at CSUSB is working very hard to meet the healthcare challenges that face our communities. In the U.S., we are facing a national shortage of health professionals, especially in nursing. In support of CSUSB's nursing department's efforts to maintain its enrollment of 400-plus nurses, San Antonio Community Hospital has generously approved financial support of the Nursing Adjunct Faculty program for the next two years. The financial support is divided with a \$30,000 per year donation for a total of \$60,000. "The financial support comes at a critical time, as we're faced with budget uncertainty, we can continue the level of education necessary for our nursing students," said Dr. Lynne Leach, chair of the nursing department.

"San Antonio Community Hospital is very happy to partner with CSUSB and its nursing program. We look forward to a long and mutually beneficial relationship that works to meet the healthcare needs of the communities we serve," said Liz Aragon, vice president and chief nursing officer for San Antonio Community Hospital. Since 1907, San Antonio has grown from a small community hospital in Upland to become a leader in healthcare in the western Inland Empire. Today, nearly 2,000 professional, technical and service personnel at its acute care facility provide a comprehensive range of medical services, utilizing the latest technologies. SACH offers a wide range of medical and surgical services, which include critical care, cardiac treatment, maternity and pediatric services. SACH also offers a complete range of laboratory, radiology, respiratory care and physical therapy services.

**The Stars Are Shining Brighter**

The observatory capital campaign under the leadership of Jim Imborski, senior vice president and Inland Empire Manager for Parsons Brinkerhoff, one of the largest engineering firms in the world, is reaching a new milestone of cash and in-kind commitments totaling almost \$1.5 million toward the construction of the observatory. "The group of supporters continues to get larger, so that we can begin to see the proverbial light at the end of the tunnel," said Imborski. This group includes the WM Keck Foundation, California Portland Cement, Associated Engineers Inc., Magnuson Estate, Bayless Family, Design West Engineering,

Northrup Grumman, Hill Partnership Inc., Redlands Engineering Company, High Light Electric, Converse Consultants and CSUSB faculty/staff donations. As we get closer to our goal, there are companies that are considering in-kind donations such as Southern California Edison and others. Join us in helping to build a state-of-the-art research and teaching facility to serve K-12 education, research and the community at large. The observatory will be the first of its kind to serve area schools and the community with a twin tower facility for both day and night viewing. For more information on how you can help, please call the CNS Development Office at (909) 537-7638.

**New Computers for Nursing from Kaiser**

The Kaiser Foundation recently awarded the nursing department two grants for a total of \$20,000 to purchase new computers for the Nursing Media Lab. These computers will allow for the expansion of workstations available to nursing students. Currently, there are 400-plus students enrolled in the Nursing program. "The nursing department appreciates the support from Kaiser Foundation and will put these computers to good use," said Dr. Lynne Leach, chair of the nursing department. The need for well educated and trained nurses continues to be a challenge. The CNS nursing department will continue to move its nursing program forward with supportive partnerships, such as Kaiser. The Kaiser Foundation Health Plan is one of the largest not-for-profit managed health care companies in the United States. Kaiser offers an integrated care model using both hospital and physician care through one of the

largest networks under the Kaiser Permanente name. Membership in Kaiser numbers more than 8.5 million members.

**Giving to CNS Reaches New Level**

This past academic year the College of Natural Sciences reached a new level of achievement. The fundraising goal of \$1.3 million was surpassed thanks to the many donors and efforts of the dean, faculty and staff. The \$1.3 million were private funds raised in support of various priorities established by the dean and department chairs. This current academic year, we are well on our way to meeting or exceeding this year's goal. The College of Natural Sciences, its dean, faculty and staff invite you to join a winning team through your support. There are many ways in which to support the CNS, student scholarship, naming opportunities of various science facilities, faculty research and chair/professorship endowments. Your support is an important factor in providing necessary resources and moving the CNS forward in academia. If you would like to discuss or learn more about these opportunities call the CNS Office of Development at (909) 537-7638.

**Participation by CNS Faculty and Staff at an All-Time High**

The faculty/staff campaign was a great success thanks to the hard work of all the CNS volunteers and Ada Coleman, who coordinated the effort and developed the theme "C.S. YOU.S.B ~ Putting the 'you' back into CSUSB." There were several departments that took on the dean's challenge to reach 100 percent participation and receive \$25 per participant from the dean back to those departments. The contribution from the dean went into a program that mattered most to that department. The 100 percenters were the departments of biology, chemistry, geology and nursing. Also, the Dean's central office reached 100 percent participation. The results demonstrate to our private and corporate donors, and our community, that those who work here are the first to step up and show their support for CSUSB.

The College of Natural Sciences strives to be the highest quality resource for students by inspiring scientific exploration through education and interactive programs. You are part of the inspiration and your support in this campaign has helped our college to grow and continue to poise young adults for success in our expanding global environment. We thank you for putting the "you" back into CSUSB.



(L to R) B. Robert Carlson, dean Natural Sciences, Albert K. Karnig, president, CSUSB, Greg Christian, executive director, Fontana Kaiser Permanente Lynne Leach, chair, Department of Nursing, CSUSB, Kathy Christmas, nurse executive, Fontana Kaiser Permanente, and Vita Willett, executive director, Riverside Kaiser Permanente.



# A HEARTFELT THANKS TO OUR DONORS

Mr. Gebreas Bayen	Mr. Emilio Zamora	Mr. Kevin H. Yamaguchi	Ralph Wagner Consulting Eng., Inc.
Dr. Kenneth Mantei	Ms. Jennifer Spellman	Mr. Freeman L. Smith, Jr.	Inland Center Kiwanis Club
Ms. Irene Carrasco	Ms. Patricia Naretto	Mr. Rafael Baliterra	Mr. Wing K. Lau
Mrs. Katrina Preciado	Ms. Leonor Ortega	Mr. Michael F. Barilla	San Bdno. Co. Med. Society Alliance
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Dr. Joan Fryxell	Ms. Donna A. Hugg	Dr. Kim Clark	Pop Top Heaven, Inc.
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Ms. Connie Chin	Dr. Robert A. Senour	Disability Rights Legal Center	Cucamonga Valley Water District
Mr. Carlos R. Fabro	Dr. Robert W. Frost	Dr. Catherine Gannon	West Valley Water District
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Ms. Cynthia J. Balteria	Ms. Brooke Etter	Mrs. Nenita Belen	San Bernardeino Co. (A/C/R)
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Mr. Ramiro DiazGranados	Ms. LaNisha L. Rice	Mrs. Beryl S. Craig	The Community Foundation
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Ms. Christina I. Rubia	Dr. David F. Maynard	Dr. John M. Pfau	Mrs. Lory Lewis
Ms. Lauren D. Mendoza	Mrs. Sylvia L. Kite	Dr. Owen Murphy	Dr. B. Robert Carlson
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Mr. Jorge A. Sandoval	Dr. John Craig	Mobility Works	Mrs. Debbie Reynolds
Ms. Stephanie A. Hlber	Dr. Richard Botting	Mr. Steven D. Cifelli	Mrs. Alice Martinez
Mr. Adolph Stone	Mr. Robert Valenzuela	Mountain High Resort	Mrs. Monica Latimer
Mr. Zerafin Fregoso	Mr. Bradley D. Brown	Pacific Labor Group, Inc.	Mr. Ken Poarch
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Mr. Larry J. Ronquillo	Mr. James B. Shambaugh	Mr. Stewart E. Boden	Ms. Cindy Levin
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Mr. Jose A. Ek	Dr. Robert G. Stein	Mr. Charles A. Stanley	Ms. Suzie Earp
Ms. Margie M. Quesada	Mrs. Margaret K. Long	Mr. Karl W. Plumlee	Ms. Gigi Hanna
Ms. Rissa L. Potts	Dr. Shumei Yang	Dr. James D. Crum	Mr. Dwight Gallo
Ms. Elizabeth Raymond	Lorillard Tobacco Company	Dr. Javier Torner	Dr. Alan Smith

## IN MEMORY OF



Professor Richard Fehn, who had taught at the university since 1983, died June 30, 2007, after a long bout with prostate cancer.

Though diagnosed with the disease several years ago, he continued teaching classes, conducting research and mentoring students until midway through the 2007 winter quarter. That dedication was typical of Fehn, who was named the university's Outstanding Professor of the Year in 2004 not only for his teaching ability, but also his cutting edge research on diabetes and the role of thyroid hormone. Dr. Fehn was a CSUSB alumnus, receiving both his bachelor's and master's degrees in biology from Cal State San Bernardino, where he returned in 1983 as associate professor. He taught classes in physiology, anatomy, endocrinology, cellular and developmental biology, among others at CSUSB, and served as chair of the biology department from 1994-97. Dr. Fehn was a dedicated mentor, working tirelessly with students as they conducted research, published their work and moved on to doctoral and professional schools across the country. Fehn mentored at least 87 undergraduate and graduate students, including four California Predoctoral Fellows and five Graduate Equity Fellows. In honor of Dr. Fehn's dedication to the Department of Biology and his students, the animal physiology lab in the newly-renovated Biology Building has been dedicated in his name, and the Department of Biology has established a memorial fund that will be used to support undergraduate and graduate research in perpetuity. If you would like to contribute to the Rich Fehn Memorial Research Fund, please contact the Department of Biology at (909) 537-5305.

### CNS OUTSTANDING ALUMNUS



Dr. Maynard received his B.S. in chemistry from CSUSB in 1976, graduating with honors. He earned an M.S. in chemistry at Cal State Long Beach and a Ph.D. in Organic Synthesis

at UC Riverside. After a short stint as an adjunct professor at Occidental College, he returned to the chemistry department at CSUSB in 1993. Dr. Maynard is completing his ninth year as department chair of chemistry and biochemistry, where his activities included the completion of the \$28 million Chemical Science Building. He is the co-founder, and co-director of the Laboratory for Ancient Material Analysis, a campus based, internationally recognized laboratory that provides archaeologists and museum curators with detailed cultural, physical, and chemical data about ancient materials, contributing to their understanding of ancient technical knowledge, use of natural resources, provenience of raw materials and trade networks. As part of his LAMA activities this year, he gave an invited talk on the "The Adhesive and Repair Material on Lord Pakal's Funerary Mask" at the 2008 Society of American Archaeologists in Vancouver, British Columbia.

### CNS OUTSTANDING GRADUATE



Chris Duran is receiving an M.A. in mathematics and is graduating with a 4.0 GPA. He is clearly a leader among the other graduate students, being a respected teaching assistant who has taught his

own math 80 and 90 classes. The department of math agrees that he is an exceptional communicator of mathematics, and he has been selected to teach math 110. This is a rare opportunity given to only those students who have the ability and the high-level communication skills to carry out such a task. Chris' thesis is a thorough discussion of a famous and quite difficult theorem known to mathematicians as "Poincare Duality." He has made significant progress through material that Ph.D. candidates study. As an undergraduate, Chris paid for his own tuition, but this year he was awarded a State University Grant and an ASI scholarship. Chris plans to continue in mathematics to earn his Ph.D. at UC Riverside, where he was awarded the prestigious Eugene Cota Robles award. This is a tuition waiver with guaranteed funding for five years, of which he must work as a teaching assistant or research assistant for at most three years. This is an exceptional offer that is only given to the most superior of applicants.

### CNS OUTSTANDING UNDERGRADUATE



Lyudmila Shved's journey began when she moved to the United States from the Ukraine in 2001. She embraced the challenge of having to learn the language and culture of her

new country. She made the decision to learn as much as she could, and she found early on that she had exceptional mathematical abilities. She used her abilities to become a tutor at the Learning Center at Victor Valley College, advancing to a level IV tutor, which is the highest level. She transferred to CSUSB in 2005, and has maintained a 4.0 GPA. She became a Mathematics and Science Scholar (MASS) and has been on the Dean's List every quarter. Lyudmila was inducted to the Phi Kappa Phi Honor Society in May 2007, and she will begin as a graduate student in mathematics in the fall. Lyudmila is a member of the Math Club, and frequently attends colloquia and other activities. Lyudmila was quoted as saying, "Life would be dreary if everyone would think, feel and act the same. That is why diversity is one of the greatest gifts given to humanity. I believe we all dream big, although dreams vary greatly from person to person. I like mathematics, and I enjoy every bit of the work I do toward my dream of becoming a teacher of mathematics."



