Dean’s Message
With the end of the academic year rapidly approaching, the students and faculty in our college are busy preparing for final exams and looking forward to commencement.

As we look back over the past academic year, we have had many successes to be proud of. We continually work to ensure that our students have excellent educational experiences. Based upon input from the local industry, we have developed new educational programs to meet industrial needs and to provide career opportunities for our students. The graduation rate of our students has improved faster than any other university in the country, while diversity of our students has continued to grow. Research in College of Sciences has also been very productive, bringing in more grants than ever before. Our faculty and students have been prolific, with many publications in high quality, peer reviewed journals, and numerous books that influence sciences globally.

Although we have had wonderful successes, we continue to have serious challenges with state budget reductions that have prevented hiring of new faculty, and resulted in substantial reductions in faculty and staff. We have been working to bring in alternative sources of revenue, including expanded research support, offering specialized certificates through Extended Studies, and increased philanthropy. The generous gift from Darlene Shiley (highlighted in this issue) is a wonderful example of the tremendous impact of philanthropy on our university.

Stanley Maloy
Dean, College of Sciences

ADHD and Prenatal Alcohol Exposure
Comparing Profiles of Learning and Memory Impairments in Two Groups of Children.

“Children with FASD and ADHD can appear very similar,” explained Sarah N. Mattson, a professor in the department of psychology at San Diego State University and corresponding author for the study. “Both alcohol-exposed children and those with ADHD demonstrate behavioral difficulties such as hyperactivity and impulsivity, and children with FASD often meet diagnostic criteria for ADHD. Studies that compare these groups can aid in accurate identification and appropriate diagnoses, which are important as they have implications for the kinds of interventions and resources provided to these children and their families.”

Mexican Quake Changed Thinking about Faults
One year ago (April 4), windows and walls wiggled and jiggled across San Diego County.

The seismic punch was delivered by a collection of faults near Mexicali that snapped on Easter Sunday, unleashing energy that was felt by an estimated 20 million people in parts of Mexico and the United States. The so-called El Mayor-Cucapah quake erupted in a region well known for its seismicity; but there were many surprises, including the discovery that the quake jumped a seven-mile gap in the fault zone. That’s twice the distance of any jump scientists had seen before. Researchers also found reason to wonder whether events like El Mayor-Cucapah mean the threat of damaging quakes in Southern California is different and bigger than they assumed. Are there more to come?

Autonomous Helicopter Aerial Imaging for Monitoring of Natural Reserves
The research and development for the project was conducted at the Intelligent Machines and Systems Laboratory, Computer Science Department.

Mahmoud Tarokh and his team of two graduate students, Paulo Merloti and David Pai, have successfully demonstrated in the field the autonomous helicopter project. The objective is to apply a robotic helicopter for environmental monitoring in the wetlands, particularly at the Tijuana River National Estuary. The use of robotic helicopter boosts the speed and frequency of environmental monitoring efforts and broadens the area monitored, while lowering operational costs and increasing personnel safety.

NSF awards a grant for a high-speed computer network between SDSU and UCSD
This infrastructure will create new opportunities for research collaboration between UCSD and SDSU.

The National Science Foundation recently awarded SDSU’s Computational Science Research Center (CSRC) a grant for a high-speed network that will connect SDSU directly with the San Diego Supercomputer Center (SDSC) and the California Institute for Telecommunications and Information Technology (CalIT2) at UCSD. Dr. Christopher Paolini in the College of Engineering, together with College of Science researchers Castillo, Cooksy, Pullman, and Thomas, will lead the effort. The equipment will allow CSRC researchers to transfer data between the two campuses at 10 gigabits/second, a 100 times faster than standard SDSU network connections.
Where are You Now?

SEND US YOUR STORIES:
alumni@sciences.sdsu.edu
http://sciences.sdsu.edu

Recent Alumni Updates:

2004
Dr. Edward Steven Jimenez
Edward earned his B.S. in Mathematics from SDSU in 2004 and his Ph.D. in Applied Mathematics from the University of Arizona in 2010. His dissertation was titled "Simulation and Estimation of Organ Uptake in a Digital Mouse Phantom." Edward was an SDSU McNair and MARC Scholar who researched simulation-based optimization of innovative petroleum distillation columns. Edward is currently a Computer Software Developer at Sandia National Laboratories in Albuquerque and has been involved in industrial-computed tomography.

Dr. Roger Sabbadini
Professor of Biology Retired in 2009 after 27 years.
Roger was a founder of the interdisciplinary Molecular Biology Institute, a charter member of the SDSU Heart Institute, and an advocate for the BioScience Center. Roger’s pioneering studies in the field of lipidomics helped to characterize the role of bioactive lipids in heart disease and cancer. Roger has founded three thriving biotechnology companies since 1997, including Lpath Inc., Mpex Pharmaceuticals, Inc., and Vaxion Therapeutics, Inc. Lpath develops therapeutic monoclonal antibodies against bioactive lipids and is currently enrolling for a Phase II clinical trial for age-related macular degeneration. Mpex is developing an inhaled antibiotic for use in Cystic Fibrosis patients and was recently acquired by Axcan, Inc. Vaxion Therapeutics is focused on the targeted delivery of anti-cancer agents using its proprietary minicell delivery platform.

$5M Shiley Gift Renames BioScience Center
Local philanthropist Darlene Shiley also pledged an additional $1 million for scholarships.
Darlene Shiley has pledged $5 million to support San Diego State University’s BioScience Center. The gift was announced on Saturday, April 9, during a gala celebrating President and Mrs. Stephen L. Weber, who will retire after leading the university for 15 years. “Because the BioScience Center project was of great personal and professional importance to them, it seemed appropriate to give Stephen and Susan a significant going-away present in tribute to his masterful presidency,” said Darlene Shiley. As a result of the new donation, the entire BioScience Center will be renamed in Donald Shiley’s honor, the "Donald P. Shiley BioScience Center" which currently houses the preexistent Donald P. Shiley Center for Cardiovascular Research.