



NEWS FROM AROUND THE COLLEGE

Department of Biological Science

Dr. **Sandra Banack** and her students are giving back to support the fight against ALS (Amyotrophic Lateral Sclerosis), a fatal disease they are also trying to learn more about through their research efforts at Cal State Fullerton. She and her students will take part in the Orange County "Walk to D'Feet ALS" on Saturday, October 21 at Mason Regional Park in Irvine. Read the complete story on page 3.

Graduate students **Abby Benson** and **John Kraft** were both awarded Grants-In-Aid from the American Society of Mammalogists to support their MS research on the behavioral ecology of small mammals in shortgrass prairie. Abby, John and REU (Research Experiences for Undergraduates) participant **Jessica Aldana** recently returned from a summer of research in northern Colorado.

In June, former graduate student **Sarah Millus** gave a paper titled "Experimental control of a native predator and breeding success of a threatened seabird on Santa Barbara Island, California" with co-authors **Dr. Paul Stapp** and Paige Martin, at the Society for Conservation Biology meeting in San Jose, California. Also in June, Dr. Stapp and postdoctoral associate **Dan Salkeld** presented a paper titled "Evidence of a role for small mammals in the ecology of plague in prairie dog colonies" at the Annual Meeting of the American Society of Mammalogists in Amherst, MA.

Research by graduate student **David Elliott** on use of the recently completed wildlife underpass on Harbor Boulevard received local newspaper and television coverage. By using cameras and track plates, David was able to show that deer and coyotes began using the underpass almost immediately after construction was completed, and more quickly than expected.

Darcee Guttilla recently defended her thesis on the ecology and effects of sterilization on feral cats on Catalina Island. She has taken a job as a wildlife biologist with the Santa Catalina Island Conservancy.

Christopher Moore, recently from Cal-Poly Pomona, joined the lab as an MS student in Fall 2006. Chris will be studying the effects of fire on rodent communities and granivory on recovery of vegetation in the Mojave Desert, a project that he worked on as a technician during the summer.

Postdoctoral associate **Dan Salkeld** and **Dr. Paul Stapp** recently published a paper entitled "Seroprevalence rates and transmission of plague (*Yersinia pestis*) in mammalian carnivores" in *Vector-Borne and Zoonotic Diseases* (6:229-237). A paper by Paul Stapp, "Rodent communities in active and inactive colonies of black-tailed prairie dogs in shortgrass steppe" was recently accepted for publication in the *Journal of Mammalogy*.

Dr. Paul Stapp organized a workshop entitled "Toward a synthesis of LTER studies of small mammal populations and communities in arid and semiarid ecosystems" at the 2006 All-Scientist Meeting of the Long-Term Ecological Research (LTER) Network in Estes Park, CO. Dr. Stapp, postdoctoral associate **Scott Newbold** and graduate student **Katie Levensailor**, along with Colorado collaborators, also presented a paper titled "Using livestock grazing to improve habitat for Mountain Plovers: Responses of arthropods, small mammals and nesting birds to changes in habitat structure" at the same meeting.

Dean's Office
MH 166
714 . 278 . 2638

Dean
Dr. Steven Murray
smurray@fullerton.edu

Associate Dean
Dr. David Fromson
dfromson@fullerton.edu

Assistant Dean
MH 488
Rochelle Woods
rwoods@fullerton.edu

Dept. of Biological Science
MH 282 / 714.278.3614
Dr. Robert Koch, Chair
rkoch@fullerton.edu

Dept. Chemistry & Biochemistry
MH 580 / 714.278.3621
Dr. Maria Linder, Chair
mlinder@fullerton.edu

Dept. of Geological Sciences
MH 254 / 714.278.3883
Dr. Diane Clemens-Knott, Chair
dclemensknott@fullerton.edu

Dept. of Mathematics
MH 154 / 714.278.3631
Dr. Paul Deland, Chair
pdeland@fullerton.edu

Dept. of Physics
MH 611 / 714.278.3366
Dr. Murtadha Khakoo
mkhakoo@fullerton.edu

Program in Science Education
MH 527 / 714.278.2307
Richard Lodyga, Director
rlodyga@fullerton.edu

Department of Geological Sciences

Dr. David Bowman presented a poster at the 2006 Southern California Earthquake Center Annual Meeting in Palm Springs on September 9-14, 2006. The poster was titled "Predicting NO Earthquake: Regional seismicity along the Wasatch fault, Utah."

Dr. Nicole Bonuso has published a paper on a research examining Late Paleozoic faunal distributions on a global scale. The following is the citation: Bonuso, N., & Bottjer, D. J. (2006). A quantitative study of benthic faunal patterns within the Pennsylvanian and Early Permian. *Palaios*, 21, 316-324. This research examines Late Paleozoic faunal distributions on a global scale. The study concludes that taxonomic differences between brachiopod and bivalve segregate faunal distributions but, more importantly, the cause of this separation is due to ecological difference in the modes of life exhibited by the two groups.

Department of Mathematics

Stipends for NSM Students Going into High School Teaching Recently Funded by NSF—The Improving Mathematics, Physics, and Chemistry Teaching (IMPACT) project was funded by the National Science Foundation under the Robert Noyce Scholarship program. IMPACT is designed to support talented, low-income, prospective secondary school mathematics, physics, and chemistry teachers during the year they work towards their teaching credential. Each year, the program will award stipends to 10 students who have earned a Bachelor's degree in mathematics, physics, or chemistry and intend to earn a secondary school teaching credential. During the four years of the grant, a total of 40 students will participate. IMPACT will operate within the current Secondary Credential program to actively recruit and fund minority candidates, especially Hispanics, to enter the fields of mathematics, physics, and chemistry teaching. Candidates must be accepted into the credential program before they can apply for IMPACT support. **Dr. Margaret Kidd** is PI for the program and directs the program along with co-PI's **Dr. David Pagni** and **Mr. Richard Lodyga** (Director, Science Education). Applications will be ready by November 2006 for students beginning their credential year in spring 2007.

MARC

MARC is pleased to welcome two new scholars into the program. **Jose Corleto** (Biological Science) is working in the research laboratory of Dr. Robert Koch and **Jacob Gonzalez** (Biochemistry) is working in the laboratory of **Dr. Christopher Meyer**. Several second year MARC scholars spent their summer conducting research at PhD-granting institutions. **Richard Parenteau** (Biological Science) conducted research at UC San Francisco in the Department of Physiology. **Anita Nosratieh** (Electrical Engineering) conducted research at UC San Diego at the Center for Functional Magnetic Resonance Imaging in the Department of Radiology, and **Kevin Chavarria** (Psychology) at King's College in London, England at the Institute of Psychiatry at the Maudsley Hospital. All six MARC scholars will be heading to the SACNAS National conference in Tampa FL at the end of October. Five of the scholars—**Eric Nunes** (Psychology), Anita Nosratieh, Kevin Chavarria, Jose Corleto and Richard Parenteau—received full travel grants to present their research. **Marcy Olave** in **Dr. Amybeth Cohen's** research laboratory also received a travel grant from SACNAS.

Anika Green, Assistant Dean for Graduate Education and Director of Biosciences Diversity Programs at Stanford University will visit Cal State Fullerton on November 1, 2006 to discuss with students the graduate school and summer opportunities in the Biosciences at Stanford University. Ms. Green will present information from 11 am to noon in the Legislative Chambers of the Titan Student Union. All are welcome. Stanford Biosciences is composed of thirteen close knit home programs: Biochemistry, Biological Sciences, Bio-medical Informatics, Biophysics, Cancer Biology, Developmental Biology, Genetics, Immunology, Microbiology and Immunology, Molecular and Cellular Physiology, Molecular Pharmacology, and Neurosciences, and Structural Biology. You can find more information on these programs at <http://med.stanford.edu/phd>. Students pursuing their PhD's in the Biosciences at Stanford are fully funded, which includes tuition, medical and dental insurance, and a \$27,500 stipend. The Stanford Summer Research Program (SSRP) in Biomedical Sciences, an 8-week residential research program open to rising sophomores, juniors, and seniors. More information about SSRP can be accessed at <http://ssrp.stanford.edu>.

Dr. Amybeth Cohen, **Darya Alizedah** (Master's August 2006), **Marcy Olave** (current Master's student) and **Paul Gerard** (MARC scholar and BS June 2006) presented their research at the national meeting of the American Society Plant Biologists (ASPB) in Boston, MA. Darya, Marcy and Paul received travel grants from ASPB.

Alcohol Awareness Week—October 2 - 6

Tuesday : Beer Goggle Obstacle Course / 10 - 1 pm / Quad
Wednesday : Alcohol Town Hall Meeting / 7 - 9 pm / Pavilion BC, TSU
Thursday: Resource Fair Info Tables & Snacks / 10 - 1 pm / Titan Walk

Presented by GAMMA (Greeks Advocating the Mature Management of Alcohol)

Support the Fight Against ALS

Dr. Sandra Banack and her students are giving back to support the fight against ALS (Amyotrophic Lateral Sclerosis), a fatal disease they are also trying to learn more about through their research efforts at Cal State Fullerton.

Dr. Banack, associate professor of biology, and her students will take part in the Orange County "Walk to D'Feet ALS" on Saturday, October 21 at Mason Regional Park in Irvine. Proceeds from the annual 5K walk benefit the ALS Association, which encourages scientific research to find a cure for ALS. Last year, 1,100 walkers raised more than \$218,000. This year's goal is \$250,000.

ALS is also known as Lou Gehrig's disease for the legendary baseball player who was diagnosed with it in 1939. ALS is a motor neuron disease that affects nerve cells in the brain and spinal cord, resulting in muscle weakness and atrophy. An estimated 30,000 people nationwide have ALS.

The cause of ALS is not completely understood, according to the ALS Association. But over the last decade, there has been a wealth of new scientific understanding about the disease that provides hope for the future. And that's where Dr. Banack has stepped up to the plate through her ongoing research. She and fellow researchers have studied the indigenous people of Guam who ate bats and showed a high level of neurotoxin, which is associated **with** diseases such as ALS, Alzheimer's disease, and Parkinson's disease.

While her research today continues to delve into the connection between neurotoxin and neurodegenerative disease, her hope is that one day, she can **prevent** people from getting these diseases. By participating in the ALS event, this scientist not only wants to heighten awareness about the disease, **but contribute to finding a cure.**

Because people with the fatal disease usually experience muscle weakness and paralysis and lose their ability to walk, Dr. Banack added that by getting involved in the **event, "We can be their feet, and help to give them hope."**

CSUF faculty, students and staff are welcome to join Dr. Banack in the walk at Mason Regional Park, 18712 University Drive. There is no registration fee; participants are encouraged to seek pledges or give a small donation. A CSUF carpool will meet at 7:45 a.m. at parking lot E, row 10. Registration is at 8:30 a.m. and the event begins at 10 a.m. Information: Sandra Banack, (714) 278-5260; registration is available online at ALS Association, Orange County Chapter, www.alsaoc.org or call (714) 285-1088.



Tucker Wildlife Sanctuary

Open House

29322 Modjeska Canyon Road
Modjeska Canyon, CA 92676

October 7, 2006

3 - 5 p.m.

FREE

Join us for a late afternoon of food, drinks and music in our beautiful sanctuary as we recognize the scouts and friends who have helped to beautify Tucker.
Meet the Dean of Natural Sciences and Mathematics from Cal State Fullerton and hear what's planned for the future.

For more information contact: (714) 649-2760

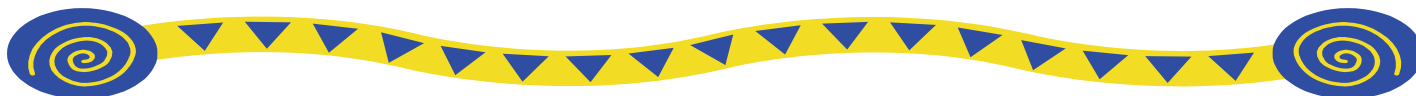
MATHEMATICS SEMINARS

Undergraduate Research Seminar (coordinators: Alain Bourget, Bogdan Suceava)

- Friday, October 6: Room MH 476, 2:00 - 3:00 pm
Michael Martinez - *When the Zero-divisors of a Ring form an Ideal, based on the Zero-divisor Graph.*
- Friday, October 13: Room MH 476, 2:00 - 3:00 pm
Alfredo Martinez - *The relative position of the Euler line in a triangle. Comments on a recent note published in Gazeta matematica.*

Problem Solving Seminar (coordinators: Alain Bourget, Bogdan Suceava)

- Thursday, October 19: Room MH 476, 2:30 -3:30 pm
Alain Bourget - *Pigeonhole Principle and Applications*
- Friday, October 20 Room MH 476, 2:00 - 3:00 pm
Bogdan Suceava - *Non-standard systems of equations*
- Thursday, November 2: Room MH 476, 2:30 -3:30 pm
Alain Bourget - *Summations and Their Applications (Part 1)*
- Friday, November 3: Room MH 476, 2:00 - 3:00 pm
Edward Pineda - *Applications of AM-GM inequality and of Cauchy-Schwarz inequality*
- Thursday, November 9: Room MH 476, 2:30 -3:30 pm
Alain Bourget - *Summations and Their Applications (Part 2)*
- Friday, November 10 Room MH 476, 2:00 - 3:00 pm
Steven Davis - *Combinatorics: Methods of Counting*



Department Advisement Dates

Registration for the spring semester starts at the end of October.
The advisement dates for the departments are as follows:

<u>Department of Biological Science:</u>	Check with department
<u>Department of Chemistry and Biochemistry:</u>	October 9–27, 2006
<u>Department of Geological Sciences:</u>	October 9–20, 2006
<u>Department of Mathematics:</u>	October 16–20, 2006 October 23–27, 2006
<u>Department of Physics:</u>	Contact jfeagin@fullerton.edu

Seminars

Biological Science Wednesdays @ 4 pm in MH-513

October 4

Speaker: Dr. Kevin Hovel (Department of Biology, San Diego State University)
Host: SCERP
Topic: Integrating landscape ecology and seagrass ecology to study the effects of habitat structure on predator-prey dynamics.

October 11

Speaker: Dr. Joshua Shimel (Department of Ecology, Evolution, and Marine Biology, UC Santa Barbara)
Host: SCERP
Topic: Microbial control of ecosystem processes in California grasslands.

October 18

Speaker: Dr. Jayson Smith (CSUF)
Host: Dr. Kathy Dickson
Topic: Long-term change in macrophyte and macroinvertebrate communities on wave-exposed rocky intertidal shores.

October 25

Speaker: Dr. John Salamone (Department of Psychology, University of Connecticut)
Host: MARC
Topic: TBA

Chemistry & Biochemistry Thursdays in MH-238, Tuesdays in MH-682, @ 4 pm (Refreshments at 3:45 pm)

October 3

Speaker: Ms. Pamela Hung (CSUF Graduate Student)
Topic: Dendritic Polymer-Structure, Physical Properties, and Applications.

October 5

Speaker: Dr. Carl Carrano (Department of Chemistry & Biochemistry, San Diego State University)
Topic: The Role of Symbiotic Bacterial Metabolites in the Development of Toxic Phytoplankton Blooms.

October 12

Speaker: Dr. Marykay Orgill (Department of Chemistry University of Nevada, Las Vegas)
Topic: Locks & Keys: How Analogies are Used and Perceived in Biochemistry Classes.

Chemistry & Biochemistry (cont'd)...

October 19

Speaker: Dr. Stephen Mezyk (Department of Chemistry & Biochemistry, Cal State Long Beach)
Topic: Removing Carcinogens from Drinking Waters by Free Radicals.

October 24

Speaker: Mr. Anthony Hollow (CSUF Graduate Student)
Topic: TBA

October 26

Speaker: Dr. Krishna Foster (Department of Chemistry & Biochemistry, Cal State LA)
Topic: TBA

Geological Sciences Wednesdays @ 4:30 pm in MH-327 (Refreshments at 4:15 pm)

October 11

Speaker: Dr. Adam Woods (CSUF)
Topic: From Oman to the Owens Valley: The Unusual World of the Early Triassic.

October 25

Speaker: National Lorentz (Department of Geology, USC)
Topic: Depositional Controls on the Reed Dolomite, White-Inyo Mountains, CA.

Physics Wednesdays @ 4:00 pm in MH-606

October 4

Speaker: Dr. Ionel Tifrea
Topic: 20 Years of High Temperature Superconductivity.


October 18

Speaker: Dr. Murtadha Khakoo
Topic: TBA.

Mathematics (See page 4)



Colleagues Colloquium



Colleagues
of the College of
Natural Sciences
and Mathematics

CAL STATE FULLERTON

From the Petri Dish To the Dinner Plate!

"Myths and Misconceptions about
Genetically Modified Organisms
and Their Potential Global Impacts"

Dr. Chris Meyer
CSUF Department of Chemistry & Biochemistry

Wednesday, October 4 - 7:30am
Coyote Hills Golf Course
1440 East International Road Fullerton, CA 92835

Series Sponsor:
ENVIRONMENTAL AUDIT, INC.

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DEAN'S BREAKFAST BRIEFING

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DEAN'S BREAKFAST BRIEFING

From the Petri Dish to the Dinner Plate!

"Myths and Misconceptions about Genetically Modified Organisms and Their Potential Global Impact"

Join the Colleagues of the College of Natural Sciences and Mathematics on Wednesday, October 4, 2005 for a highly entertaining and informative presentation by Department of Chemistry & Biochemistry faculty member Chris Meyer, Ph.D.

How is plant genetic engineering performed? What is the difference between conventional breeding and genetic engineering? Why is plant genetic engineering so controversial? Are biotech foods safe? Come gain a better understanding of the science behind GMOs as Dr. Meyer serves up a smorgasbord of thought-provoking answers to these and other important questions. Learn more about the issues that have stirred emotions and sparked protests across the globe.

Seating is extremely limited for this event so contact Doug Colby at 714-278-7018 or email dcolby@fullerton.edu to reserve your place today.

Tickets: \$10.00 for non-members - Free for Colleagues Members
Registration: 7:00am - Program: 7:30am to 9:00am

More information & directions to Coyote Hills online at <http://asm.fullerton.edu/colleagues>.

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For more information, contact: Doug Colby at dcolby@fullerton.edu or (714) 278 - 7018