

## News From Around the College

### Dean's Office

McCarthy Hall 166  
(714) 278-2638

### Dean:

Dr. Kolf O. Jayaweera  
kjayaweera@fullerton.edu

### Associate Dean:

Dr. David Fromson  
dfromson@fullerton.edu

### Assistant Dean:

Rochelle Woods  
McCarthy Hall 488  
rwoods@fullerton.edu

### Department of Biological Science

McCarthy Hall 282  
(714) 278-3614  
Dr. Robert A. Koch, Chair  
rkoch@fullerton.edu

### Department of Chemistry & Biochemistry

McCarthy Hall 580  
(714) 278-3621  
Dr. Maria Linder, Chair  
mlinder@fullerton.edu

### Department of Geological Sciences

McCarthy Hall 254  
(714) 278-3883  
Dr. Diane Clemens-Knott, Chair  
dclemensknott@fullerton.edu

### Department of Mathematics

McCarthy Hall 154  
(714) 278-3631  
Dr. Paul Deland, Chair  
pdeland@fullerton.edu

### Department of Physics

McCarthy Hall 611  
(714) 278-3366  
Dr. Roger Names, Chair  
rnames@fullerton.edu

### Program in Science Education

McCarthy Hall 527  
(714) 278-2307  
Richard Lodyga, Director  
rlodyga@fullerton.edu

### Mathematics

Nearly half of the faculty members of the Department of Mathematics were invited to present at the annual meeting of the National Council of Teachers in Mathematics-Southern Section. Held in early November in Palm Springs, this meeting features top mathematics educators speaking about mathematics teaching and learning at all levels. With more than 3,500 K-16 teachers in attendance, it is one of the largest mathematics meetings in existence. Speakers from CSUF included **Drs. Marty Bonsangue, Armando Martinez-Cruz, Harris Shultz, David Pagni, Kathy Lewis, Jerry Lege', Margaret Kidd, Jerry Gannon, Larry Weill, Bill Leonard, Scott Annin, and Cherlyn Converse.**

### Geology

Department Seminar: December 1, MH-327, 4:30, Dr. Antony Orme, (UCLA) "Late Quaternary oscillations of Owens Lake, California"

**Dr. Jeffrey Knott** of Geological Sciences was a co-author for three presentations at the Geological Society of America annual meeting in Denver earlier this month. The first presented quantitative measures of student learning in introductory geoscience classes at CSUF using changes in teaching techniques within an active classroom environment. The second, co-authored with the CSUF Geology 101 Laboratory faculty, presented a strategy for integrating field trips and in-class exercises to improve student learning. The third presentation was a qualitative assessment of faculty attitude changes and quantitative improvements in student learning in classes using Conceptests.

**Knott, J. R., 2004**, Engaging students and improving student learning in introductory geoscience classes using Conceptest questions; Geological Society of America Abstracts with Programs, v. 36, n. 5, p. 490.

Knott, J. R., **Butcher, P., Carlson, G., Levine, S., McClain, T., Wareham, S. Weaver-Bowman, K., Williams, C.**, 2004, Enhancing student achievement and geology majors through integration of field trips into general education courses; Geological Society of America Abstracts with Programs, v. 36, n. 5, p. 159.

**Owens, K., McConnell, D. A., Steer, D., Van Horn, S., Knott, J., Borowski, W., McGrew, H., Dick, J., Greer, L., Malone, M.**, 2004, Changing pedagogy to include Conceptests and peer instruction in introductory geoscience courses: The impact on instructors and students; Geological Society of America Abstracts with Programs, v. 36, n. 5, p. 218.

## NSM NEWS CONTINUED

### Biological Science

The 16th Annual Graduate Women in Science conference has been scheduled for March 19, 2005 on the CSUF campus. Undergrads, Masters and PhD students throughout Southern California present their research each year during a lively and informative conference.

**Melissa Fowler**, a SCERP scholar in Dr. Paul Stapp's laboratory, was awarded the Judith A. Presch Desert Research Scholarship for her undergraduate research on the foraging behavior of desert rodents.

Nine students were awarded grants for their proposals to the Undergraduate Research & Creativity Awards program. They are: **Ronald Coleman**, \$500 (Cohen lab), **Alireza Namini**, **Rahelle Tibbetts**, **Laura Pasternack**, \$1,500 (Drath lab), **Albert Rodriguez**, \$940 (Eernisse lab), **Melinda Oropeza**, \$997 (Pelaez lab), **Tracy Valentovich**, **Kelly Schwiebert** \$1,945 (Sandquist lab), and **Sarah Blessum**, \$1,000 (Tolmasky lab).

Graduate students, **Lamar Blackwell** and **Reginald McNulty**, traveled with **Dr. Robert Koch**, to present posters at the American Society for Cell Biology annual meeting in Washington, D.C. Their posters were entitled, "Rho family GTPases mediate integrin-initiated ascidian sperm activation" and "Signaling in ascidian sperm activation requires a pH-dependent change in membrane potential," respectively.

Two papers from the **Dr. Tolmasky's** laboratory appeared in print recently: **Dorsey CW**, **Tomaras AP**, **Connerly PL**, **Tolmasky ME**, **Crosa JH**, and **Actis LA**. 2004. "The siderophore-mediated iron acquisition systems of *Acinetobacter baumannii* ATCC 19606 and *Vibrio anguillarum* 775 are structurally and functionally related." *Microbiology* **150**:3657-3667; and **Di Lorenzo M**, **Poppelaars S**, **Stork M**, **Nagasawa M**, **Tolmasky ME** and **Crosa JH**. 2004. "A nonribosomal peptide synthetase with a novel domain organization is essential for siderophore biosynthesis in *Vibrio anguillarum*." *Journal of Bacteriology* **186**: 7327-7336.

### Chemistry and Biochemistry

Update on Troy student **Amreeta Gill**: She has now won the state competition, and she presented her work at the Tuberculosis Structural Genomics Consortium retreat at Asilomar, Pacific Grove, CA.

The following are recently published articles and poster presentations from the Chemistry and Biochemistry Department:

**H.J.P. de Lijser** and **N.A. Rangel**, *Photochemical Acetalization of Carbonyl Compounds in Protic Media Using an in Situ Generated Photocatalyst*, *J. Org. Chem.*, **69**, 8315-8322 (2004).

**H.J.P. de Lijser** and **C.K. Tsai**, *Photosensitized Reactions of Oxime Ethers. A Steady-State and Laser Flash Photolysis Study*, *J. Org. Chem.*, **69**, 3057-3067 (2004).

**B.V. Marquez** and **H.J.P. de Lijser**, *Base-Assisted Deprotonation of Oxime Radical Cations*, National Collegiate Honors Council Conference, New Orleans, LA, November 10-14, 2004 (poster).

**R.E. Shade** and **H.J.P. de Lijser**, *Substituent Effects on the Photooxidation of 5-X-2-Adamantanone Oximes*, 38th Western Regional Meeting of the American Chemical Society, Sacramento, CA, October 27-30, 2004 (poster).

**Dr. de Lijser** will be attending the 16th Winter Meeting of the Inter-American Photochemical Society in Clearwater Beach, FL (January 6-9) with two of his students:

**B.V. Marquez**, **N.A. Rangel**, and **H.J.P. de Lijser**, *The Effect of an Added Base on the Formation of Iminoxyl Radicals and Nitriles in the Photoinduced Electron Transfer Reactions of Aldoximes*.

**NSM NEWS CONTINUED**

**K. Tadpetch and H.J.P. de Lijser**, *Mechanistic Aspects of the Photosensitized Electron Transfer Reactions of Benzylketoximes.*

**H.J.P. de Lijser and N.A. Rangel**, *Photochemical Acetalization of Carbonyl Compounds in Protic Media Using an in Situ Generated Photocatalyst.*

**Carolina Vasquez**, presented her work on the tuberculosis pyrimidine regulatory protein at the American Crystallographic Association meeting in Chicago. Her poster presentation was featured in the recent ACA newsletter summary: "Carolina Vasquez, from the Kantardjieff group at Cal State-Fullerton, presented a striking poster on the structure of M. tuberculosis pyrR and results of virtual screening."

**Physics**

**Dr. Mark H. Shapiro**, Professor of Physics, Emeritus, presented an invited paper entitled "Simulation of Low Energy Large Au Cluster Impacts on Aluminum Targets" at the 18<sup>th</sup> International Conference on the Application of Accelerators in Research and Industry in Ft. Worth, TX on October 12, 2004. The paper was coauthored by Prof. T. A. Tombrello of Caltech.

**Featured NSM Faculty**

**Dr. Katherine Kantardjieff** recently published an article that was featured on the cover of *Current Pharmaceutical Design*. The article is entitled, *Structural Bioinformatic Approaches to the Discovery of New Antimycobacterial Drugs*. It discusses integrated bioinformatic approaches to drug discovery exploit computational techniques to examine the flow of information from genome to structure to function. Congratulations to Dr. Kantardjieff.

Congratulations to the NSM alumni who will be honored at the 2005 Vision & Visionaries Gala on the evening of April 26, 2005

Dr. Warren R. McKay  
Class of 1987 Biological Science  
Physician, UCSF

Dr. Linda Spilker  
Class of 1977 Physics  
Cassini Deputy Project Director, JPL

**NSM Announcements****Scholarship Information**

For the 2005-2006 School year NSM is pleased to announce that scholarships will be available to students. There are multiple scholarships and awards and all students are encouraged to apply. There's nothing better than attending school when someone else is paying for it. For more information on these scholarships and awards please go to the Financial Aid Webstite at: <http://www.fullerton.edu/financialaid>.

## Lecture Series

**Biological Science****Place: McCarthy Hall 513****Day: Wednesday****Time: 4pm****Dec. 8****Dr. Dennis Hedgecock**

Department of Biological Sciences,  
University of Southern California

**"Genomic Approaches to Understanding Individual Variation in Growth and Survival of the Pacific Oyster *Crassostrea gigas*"**

**Chemistry and Biochemistry****Place: McCarthy Hall 238****Day: Thursday****Time: 4pm****Dec. 9****Mr. Yi-Ting Lin**

Graduate Student Department of Chemistry  
& Biochemistry, CSUF "TBA"



***Season's Greetings and good Luck on your finals. Have a restful and safe holiday. See you after the break and HAPPY NEW YEAR!***