

COLLEGE OF

Natural Sciences & Mathematics



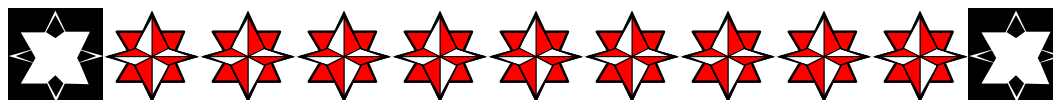
SPOTLIGHT

New Faculty Member Adds Research Strength to NSM

A new laboratory has recently been set up in the SLC for Dr. Zhuangjie Li, who joined the faculty as an assistant professor in the Department of Chemistry and Biochemistry last fall.

Dr. Li's research interests include characterization of transient radical species and the study of the dynamics and kinetics of atmospheric processes involving sulfur- and halogen-containing species, volatile organic compounds and aerosols. Two graduate students and three undergraduate students are currently involved in Dr. Li's atmospheric chemistry projects. Their results will be presented at the upcoming 21st Annual Informal Symposium on Kinetics and Photochemical Processes in the Atmosphere, which will be held at CSUF on February 24, as well as at the American Chemical Society 227th National Meeting in Anaheim, CA on March 28-April 1.

With the addition of Dr. Li, the Department of Chemistry and Biochemistry now has a "critical mass" of atmospheric chemists. Dr. Li will collaborate with his atmospheric colleagues, Drs. Scott Hewitt and Fu-Ming Tao, to enhance the quality and productivity of atmospheric chemistry research at CSUF.



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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
(714) 278-7082
rwoods@fullerton.edu

Department of Biological Science
McCarthy Hall 282
(714) 278-3614

Dr. C. Eugene Jones, Chair
cejones@fullerton.edu

Department of Chemistry & Biochemistry
McCarthy Hall 580
(714) 278-3621

Dr. Robert Belloli, Chair
rbelloli@fullerton.edu

Department of Geological Sciences
McCarthy Hall 254
(714) 278-3883

Dr. John Foster, Chair
jfoster@fullerton.edu

Department of Mathematics
McCarthy Hall 154
(714) 278-3631

Dr. James Friel, Chair
jfriel@fullerton.edu

Department of Physics
McCarthy Hall 611
(714) 278-3366

Dr. Roger Nanes, Chair
rnanes@fullerton.edu

Program in Science Education
McCarthy Hall 527
(714) 278-2307

Richard Lodyga, Director
rlodyga@fullerton.edu

Department News



Chemistry

- The Department of Chemistry and Biochemistry announces research recently accepted for publication: **a-CHLORINATION OF CARBOXYLIC ACIDS USING TRICHLOROISOCYANURIC ACID**
Gene A. Hiegel, Diane Dutton Faher, Justin C. Lewis, Tan Duc Tran, Gregory G. Hobson, Farhad Farokhi.
The research focuses on carboxylic acids chlorinated in the α position by heating with trichloroisocyanuric acid after formation of a small amount of the acid chloride using phosphorus trichloride.
- Dr. Harold Rogers, Associate Professor of Organic / Inorganic Chemistry, will appear in the 2004 edition of *Who's Who Amongst America's College Teachers*. Dr. Rogers also appeared in the 2000 edition. The publication honors the top 5% of college teachers and nominations are submitted by former students. This year's publication will be released in June or July. During the past year Dr. Rogers has taught Chem 301A and 301B (Organic Chemistry lecture), 302 (Organic Chemistry laboratory), 325 (Inorganic Chemistry), and 435 (Hazardous Materials).

In addition to his teaching duties, Dr. Rogers is the Department Safety Coordinator, a Member of HIRT (Hazardous Incident Response Team), and is on the Environmental Studies Council. He joins other staff in presenting the Academic Laboratory Safety Workshops each semester and during intercession/summer. He has previously won two quarterly EH&S safety awards, and also received the Governor's Safety Award in 2000.

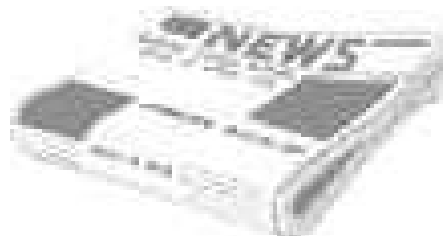
- Dr. Christopher Meyer was honored with the annual Research Award at the 16th Annual California State University Program for Education and Research in Biotechnology (CSUPERB) meeting in San Jose (January 16-18), putting CSUF in a tie with San Diego State for the most awards in this category. Previous recipients of the award include Drs. Linder, Koch, and Tolmasky. Dr. Meyer presented an hour-long seminar which will soon be available on the internet.
- Jimmy Hernandez won the 1st annual Glenn Nagel Award for undergraduate research based on his abstract, essay, and poster presentation. The award will fund his travel to the American Society for Biochemistry and Molecular Biology national meeting in Boston this June.
- Dr. Scott Hewitt will be hosting an Atmospheric Chemistry Conference on February 24, to be held in the Titan Student Union. It is an all day event. For more information contact the Chemistry & Biochemistry Club at CSUF_Chem_Biochem_Club@hotmail.com or visit the Chemistry & Biochemistry Club website at http://www.geocities.com/csuf_cbc/CSUF_Chem_Biochem_Club.html

Math

- The Department of Mathematics will be hosting several Colloquium talks throughout the spring semester. This month's talk will be:
Thursday, February 19 2:00 pm: Dr. Marius Stefan (UCLA) - *On free probability theory and its applications to operator algebras*

(Continued on page 3)

Department News



(Continued from page 2)

Other talks scheduled for the spring semester include:

Thursday, March 18, 2:00 pm: Dr. Alberto Candel (Cal State Northridge) – *title to be announced*

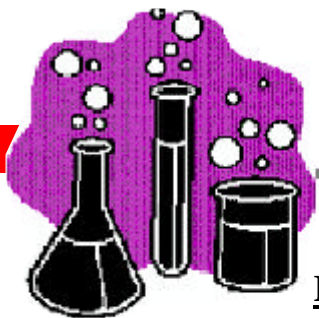
Friday, April 9, 2:00 pm: Dr. Catalin Zara (Penn State Altoona) – *Momentum Polytopes*

Thursday, April 29, 2:00 pm: Dr. William Murray (Cal State Long Beach) – *title to be announced*

- The Department of Mathematics is also sponsoring a Problem Solving Seminar along with the annual William Lowell Putnam Competition . The Problem Solving seminar will start in April 2004, with a series of introductory talks. CSUF math screening test for the Putnam Competition will take place Monday, October 4, 2004, at 2:00 p.m. The top three students will represent CSUF in the 2004 W. L. Putnam Competition, which will take place Saturday, December 4, 2004, from 8:00 a.m. to 11:00 a.m. and from 1:00 p.m. to 4:00 p.m. Besides the team members, any CSUF undergraduate student is welcome to participate as an alternate. Students interested in participating in the 2004 competition should contact Dr. W. Gearhart (wgearhart@fullerton.edu), Dr. B. Suceava (bsuceava@fullerton.edu) or Dr. S. Annin (sannin@fullerton.edu) for preparation materials or contest information. The CSUF Putnam Committee would appreciate the feedback of faculty members from other departments in order to identify interested students (the contact information is the same as above).

Biology

- Two graduate students working on coastal marine ecology projects under the direction of Dr. Steve Murray recently won awards for presentations of their M.S. thesis research at conferences. Lisa Gilbane, who is using stable isotopes to analyze food web inputs into intertidal mussels, won best student poster awards for her presentations at the May 2003 Southern Academy of Sciences meetings at CSU Northridge, and the November 2003 annual meetings of the Western Society of Naturalists in Long Beach. Aimee Bullard, who is studying the primary productivities of southern California rocky intertidal communities, received the best student poster award for her work at the June 2003 national meeting of the Phycological Society of America in Salishan, Oregon, and was given honorable mention recognition for her talk at the November meetings of the Western Society of Naturalists. Aimee and Lisa also presented the results of their research at a colloquium held this past January at the Universidad Autonoma de Baja California Norte in Ensenada, Mexico, where they had the opportunity to interact with Mexican students and scientists, as well as investigators from the University of Connecticut. Both students are Sea Grant Trainees and work under Dr. Steve Murray as Research Assistants on projects funded by the USC Sea Grant program and the Pacific OCS Office of Minerals Management Service.



Research Center

Research Happenings

NSM Professors Receive Research Grants

- Dr. Jochen Schenk, Assistant Professor in the Department of Biological Science, received a \$320,000 grant from the Andrew W. Mellon Foundation to conduct research on "hydraulic segmentation and axis splitting in desert shrubs". The project will involve field research in North and South America, as well as South Africa and will be conducted in collaboration with researchers at the University of Connecticut.
- Dr. Richard Laton, Assistant Professor in the Department of Geological Sciences, is awash in grants dealing with the health of groundwater in two Southern California regions, a circumstance that has created a stream of opportunities for real-world research by the university's students. He has received grants totaling more than \$250,000 from the Mojave Water Agency for research on water sources, water sampling and water supplies in the Victorville, Apple Valley and Lucerne Valley areas. The most recent grant awarded this fall — for \$192,907 — funds various research projects.
- Dr. Mark Filowitz and Dr. Maria Linder took the initiative to apply for the renewal of NSM's long-standing National Science Foundation-funded REU grant that supports the research of 9-10 undergraduate students for 10 weeks during the summer. The students, more than half of whom are from outside institutions, work in the laboratories of Chemistry/Biochemistry faculty and have common seminars, workshops, social and other activities. The NSF grant has been renewed once again, for a three-year period (from '04 to '07). This grant is one out of only about 17 applications funded - out of a total of 127. Most of the other institutions grant PhD degrees.
- Dr. Linder was also awarded another RO1 National Institutes of Health grant, this one for 5 years starting February 10, 2004, for a total of about \$1.2 million. It is a collaborative grant with colleagues located near Melbourne, Australia who are in the field of copper metabolism. It is expected that the grant will facilitate understanding of a number of aspects of how copper is transported from the diet to specific tissues and organs; what brings about dramatic changes in these transport processes during lactation, so that much of the incoming copper goes directly to the mammary gland and milk and from there to the newborn infant; and what is the importance to infant nutrition of specific forms of copper in the milk.

Dimensions

DIMENSIONS provides undergraduate students the opportunity to become published in a peer-reviewed journal while acquiring familiarity with the submission process that will assist them in submitting their future work to journals in their field. *DIMENSIONS* will also recognize the high quality of undergraduate research by annually publishing CSUF students' best work in biology, biochemistry, chemistry, geology, mathematics, physics and science education.

The deadline for first drafts is February 13, 2004

For information on submission guidelines, visit: <http://nsm.fullerton.edu/> and click "Publications"
OR contact

Jimmy Hernandez, Editor-in-Chief

j_hernandez10@yahoo.com

MONEY

SCHOLARSHIP AND EMPLOYMENT INFO

Cultural Heritage Award

In recognition of Black History Month, the Cal State Fullerton African American Faculty & Staff Association has established the "Cultural Heritage Award" to encourage CSUF students to share their talent surrounding the visual and performing arts. This year's theme is

Walking in the Spirit

Eligible Entries:

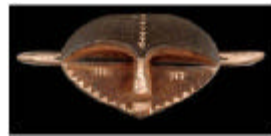
Paintings Drawings Sculptures Essays Poetry

Winner will receive a cash award of \$350!

Rules

Undergraduate or graduate Cal State Fullerton student
In good academic standing
All work must be original
Artist must bring his/her own easel

- Submit your entry to the Multicultural Center, TSU by Tuesday, February 10, 2004
- Artwork will be displayed at the African American History Month Celebration on Thursday, February 12, 2004
- Winner will be announced at the African American History Month Celebration



ESSAY CONTEST

A group of NSM students is sponsoring an essay contest with an award of **\$100** to the most thought provoking essay on any issue concerning biotechnology or other relevant topics in science that influence society and question our current societal or personal ethical standards. Your essay should not exceed 10 pages and must be double-spaced, 12 pt font, 1" margins and reference all supporting evidence.

Submissions will be taken until the end of CSUF SPRING 2004 semester and evaluated during the summer session

For information, visit the website:
<http://www.freewebs.com/scienceethicssociety/>

To submit an essay electronically, please contact:
ScienceEthicsSociety@hotmail.com

MONEY

SCHOLARSHIP AND EMPLOYMENT INFO

Louis Stokes Alliance for Minority Participation

Who:

Underrepresented minority students (African American, Native American, Pacific Islander, Hispanic) majoring in mathematics, science, computer science, or engineering.

What:

Grant to provide stipends for students working on independent study research projects during Summer 2004. There is a total of \$2400 available, to support four students at \$600 apiece.

When:

Rolling deadline. Early application is encouraged!

How:

Contact Ernie Solheid in the Mathematics Department at (714) 278-7023 for details.

SCHOLARSHIPS

The Financial Aid Office has recently released updated information on scholarships available to students,

including scholarships of particular interest to NSM students. **Scholarship information is now available online only.** For detailed

criteria and application information, please see the financial aid website,

<http://www.fullerton.edu/financialaid/>

ICC Funding

Who:

All NSM students who are planning to attend research conferences either to present work (active participants) or attend workshops (non-active participants); NSM student organizations who are planning special events or speakers.

What:

General funding for:

- Active Conference Participants: travel fare, hotel cost, registration fees
- Non-active Conference Participants: registration fees
- Clubs: speakers, events, special event advertising

When:

Deadline is revolving, proposal must be received at least one week before ICC meeting (Fridays) in which it should be considered, but it is highly recommended that proposals be submitted as soon as possible.

How:

A proposal and funding request form must be submitted to NSM-ICC. Forms can be obtained at the Opportunity Center, MH 488.

How Much:

- Active Participants: up to \$600
- Non-participants: up to \$100
- NSM student organizations: varies by request



GOOD TO KNOW ...

February is African American Heritage Month

Several free events are scheduled throughout the month, including art exhibits and a speaker series. For more information contact the Multicultural Leadership center at 714-278-7366 or e-mail at:
multiculturalcenter@fullerton.edu

Or check the Daily Titan news

Tutoring Schedule

The Opportunity Center has totally free tutoring beginning for the spring semester on February 9. Stop by the Opportunity Center, MH 488, for the spring schedule. Courses include:
Biology 101, 171, 172, 273, 274
Chemistry 120 A/B, 301 A/B, 421
Physics 211, 212

EWP ORIENTATION

Prepare for the February 21 test

Friday, Feb. 13, 2004
1:00-2:00 p.m.

MH-238 (Last name beginning A-K)
MH-264 (Last name beginning L-Z)

There is no charge and no pre-registration. Check <http://www.fullerton.edu/testing> for more information.

All seniors majoring in biology **MUST TAKE** the ***BIOLOGY EXIT EXAM*** in order to graduate!

The exam is only offered **ONCE A YEAR**, so please don't wait!

2004 Exam Dates:
Thursday, March 18, 4:00 pm-7:00 pm
Friday, March 18, 1:00 pm-4:00 pm

Sign up in the Biology Department Office,
MH-207, (714) 278-3614



New Campus-Wide ID Debuts

In a move to protect sensitive personal data of students, faculty and staff, Cal State Fullerton is moving away from use of social security numbers as a primary identification medium. Student identification numbers, generally the student's social security number, will be converted to the new Campus-Wide Identification system. To learn more about this change and its impact on you, visit the CWID website at <http://www.fullerton.edu/cwid>.

You can find your new CWID number by logging in to your student portal or TitanOnline.