

Spring 2011

## ORSP Research Newsletter - Spring 2011

Office of Research and Sponsored Programs

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## *Coastal Education and Research Facility*

The Pontchartrain Institute for Environmental Sciences Coastal Education Program at the University of New Orleans provides teachers, students and community members with unique opportunities to explore and learn about the coastal wetlands of southeastern Louisiana through experiential science. The program is based at its Coastal Education

and Research Facility (CERF) located at Chef Menteur Pass and adjacent to Bayou Sauvage National Wildlife Refuge. CERF is located in an area facing multiple coastal threats (sea level rise, land loss, alteration by hurricane protection structures, etc.), placing its program on the “front line” for all the coastal issues that will impact





**CERF (continued from Page 1)**

Children participating in the Coastal Education Program (below)



Louisiana and the world over the next century. Additionally, its location on a major tidal pass makes it an ideal place for important climate change related data collection. Surprisingly, CERF's location is also literally within New Orleans city limits, so all local students are close enough to participate on a "day-trip" basis. The Coastal Education Program serves schools in the southeast Louisiana coastal parishes, providing programs for elementary to high school grades. CERF's audience includes underrepresented and underserved groups and CERF is ADA compliant. In addition, it offers professional development opportunities for area teachers and provides teaching materials for the classroom.

The CERF education programs focus on increasing students' awareness and understanding of the values of Louisiana's coastal wetlands, the issues facing them, and the choices we have for protecting and restoring them. Their methodology emphasizes

inquiry-based science activities that cut across the science disciplines and also include the social sciences. One of the programs at CERF is part of a larger program to encourage minority students to study the Geosciences. Field based classes offered at CERF cover a range of topics, including: water quality and biological data collection; GPS and GIS mapping technology; remote sensing technology; measuring rates of land loss using aerial photography and satellite imagery; wetland habitat assessment; and many others. The activities presented are aligned with the Louisiana State Science Grade Level Expectations (GLEs).

### **Research at CERF**

The Nekton Research Laboratory, directed by Dr. Martin O'Connell, bases its fieldwork at CERF, docking the Research Vessel Cavalla there. Nekton is conducting surveys of fish populations in the Lake Pontchartrain Estuary, as well as a lemon shark surveys in the Chandeleur Islands. They

(Left) Children planting trees for shoreline restoration

### ***CERF (continued from Page 2)***

are also gathering data to address issues related to sportfish populations.

The Research Vessel Fisk docks at CERF when the UNO Coastal Research Laboratory is working in the area. Coastal geologists based in the De-

partment of Earth and Environmental Sciences and the Pontchartrain Institute are studying the dynamics of the Mississippi River Delta, looking at how sediment supply, subsidence, sea level rise and other factors influence the coastal plain.

Graduate student Sunny Brogan of the Nekton Research Laboratory holds a juvenile bull shark that was collected during routine surveys in Lake Pontchartrain



### ***Three UNO Programs in Top 100***

According to the NSF Webcaspar database and our NSF Expenditure Survey for 2009 UNO has three programs in the sciences and social sciences in the top 100 of their discipline: Sociology (#58), Chemistry (#59) and Earth & Environmental Science (#61). These three programs had more research expenditures last year than any other Louisiana university (by discipline). We also had two other programs that were in the top 200 and had more research expenditures than any other Louisiana university: Psychology and Electrical Engineering. Of the 12 engineering, science and social science disciplines listed in the survey UNO was the highest ranked among all (public and private) universities in Louisiana in the 5 listed above. The NSF survey also includes Education funding and we are highest in that as well.

### ***UNO Research Funding Increases***

According to the recently submitted NSF Expenditure Survey for 2010, UNO has increased federal research expenditures and total research expenditures for the third straight year. In 2010 we did \$19.2M in federal research expenditures, a 27.6% increase over 2009, and \$35.0M in total research expenditures, a 13.7% increase over last year. Despite a 6% decrease in the number of research/instructional faculty, the number holding active research grants increased from 38 to 57 faculty members and our Research Productivity (federal research expenditures per faculty member) increased from \$32,356 in 2009 to \$43,736 in 2010. As you may recall, UNO had the highest Research Productivity of any public university in the state in 2009. With the impending budget cuts at the federal level it may be difficult to continue this trend. However, if we continue to seek external funding we can continue to grow the research enterprise.

## ***Board of Regents 2010-11 Support Fund Awards***

### **ITRS**

#### **Weilie Zhou**

Advanced Materials Research Institute

“Fabrication of Supercapacitors through Three Dimensional Nanoarchitecture”

### **Enhancement**

#### **Leonard Spinu**

Advanced Materials Research Institute/Physics

“Acquisition of Laser Interferometer Stage for Large Scale Precise E-beam Nanolithography for Novel Nanomaterials Synthesis and Device Fabrication”

#### **Matthew Tarr**

Chemistry

“Multidisciplinary Facility for Nanoparticle Size and Zeta Potential Characterization: Dynamic Light Scattering Instrument”

#### **Pierre F. Poudeu Poudeu**

Advanced Materials Research Institute/Chemistry

“Acquisition of a Spark Plasma Sintering System for Nanocomposite Research and Education”

#### **Pamela Kennett-Hensel**

Marketing & Logistics

“Using Technology-Based Active Learning to Enhance Student Success”

#### **Tumulesh Solanky**

Mathematics

“Continuation of Statistical Consulting Education at UNO”

#### **Kevin Stokes**

Advanced Materials Research Institute/Physics

“Hall Effect/Nernst Effect Low Temperature Measurement System for Research and Education in Electronic Materials”

### **Graduate Fellowships**

#### **Department of Chemistry**

Doctoral Program—Four Year

### **Endowed Chairs**

“The Annette Weinberg Bernstein Chair in University Management”

## ***Board of Regents Travel Grants***

The Board of Regents sponsors travel grants for emerging science and engineering (S&E) faculty members to meet with funding agency program officers or to give major invited talks. Faculty members who hold a regular tenure-track but untenured S&E position in any Louisiana public institution of higher education are eligible for an award.

### **Award Amounts**

The maximum amount available to an awardee traveling to visit a funding agency is

\$1,200. If the applicant is accompanied by an already competitive (tenured/funded) faculty mentor, an additional \$1,200 will be awarded for travel expenses of the pair.

The maximum amount available to an awardee traveling to give an invited plenary or major presentation is \$1,200.

### **Eligible Disciplines**

Eligible S&E disciplines under this program are those eligible for NSF funding.

They include:

### **Biological sciences (all)**

### **Mathematical & computer sciences**

### **Earth & environmental sciences (Geology, Oceanography, Environmental)**

### **Engineering (all)**

### **Physical sciences (Astronomy, Chemistry, Physics)**

### **Social & behavioral sciences**

For more information please contact: [gppetrie1@uno.edu](mailto:gppetrie1@uno.edu)



## *Training, Resource and Assistive-technology Center (TRAC)*

TRAC, located on the lakefront campus, in the Oliver St. Pe' building has been offering services since 1985. The Center's primary mission is to provide training for people with disabilities. One such program, a contract through Louisiana Rehabilitation Services, is the Exceptional Entrepreneurs of Louisiana (ExcEL), a self employment training program to teach people with disabilities how to start their own business. Dr. Bill Galle and Dr. Kenneth Lacho coordinate the curriculum, while the TRAC staff provides the screening, case management and follow up. This program has gained national and international recognition and has been considered a model program for other states. Other training programs include our Summer Residential Program for people who are blind or have low vision. The participants are taught how to use screen-reading software that reads the screen to the user along with standard MS Office programs, Internet access, social networks, and other programs that help them prepare for college life.

Assistive Technology might include screen-magnification software, literacy tools to assist people with learning or cognitive disabilities with reading and writing tasks, or downloadable iPhone/iPod Touch apps. TRAC staff conduct assessments to determine the appropriate assistive technology and provide the training needed to effectively use the technology. Assistive technology advances not only help students; they also help people maintain their employment when they begin to have difficulties brought on by disabilities (acquired through disease or accidents). TRAC staff can help people improve their quality of life and increase their abilities to achieve independence.

TRAC staff also shares knowledge and experience through research and preservice



*TRAC Facility*

coursework for counselors and educators. TRAC staff, Dr. Rose Angelocci, has served as adjunct faculty for the department of Special Education and Habilitative Services and the department of Educational Leadership, Counseling, and Foundations. TRAC has also collaborated with faculty from the College of Business on research, presentations, and publications.

The Public Service Training component of TRAC provides computer training throughout the state to Department of Transportation and Development employees as well as other entities and does not focus on disability related issues.

TRAC also participates in international initiatives by coordinating the International Conference on Higher Education held in Innsbruck, Austria at the University of Innsbruck. This conference attracts participants from around the world, who are concerned about addressing the needs of col-

lege students with disabilities. The last conference, held in July 2010, had over 23 countries represented and nearly 200 participants. The University of Innsbruck co-hosts the event, allowing us to use its building and contributes staff time to help coordinate the conference.

The TRAC facility has two large conference rooms, a small meeting room, 13-station computer lab and 14 residential rooms for lease. Many professors have utilized the residential rooms to house their guest presenters, family, friends, and other students exploring the opportunity of attending UNO.

Please check out our website for program details, conference rooms and lodging at [www.trac.uno.edu](http://www.trac.uno.edu).

## ***Honors for UNO Mechanical Engineering Department***

The American Society of Mechanical Engineers International Gas Turbine Institute's Turbo Expo Technical Conference has long been recognized as the world's leading conference on all aspects of gas turbine technology. It now includes related topics in wind, steam, fans/blowers, and solar. The Conference recently recognized three individuals from the UNO Department of Mechanical Engineering.

Lei Zhao, a graduate assistant in UNO's Energy Conversion and Conservation Center (ECCC), received the Young Engineer Travel Award to attend the 2011 Turbo Expo in Vancouver, British Columbia in June. He was chosen from over 60 applicants to present three papers related to gas turbine hot sections cooling technologies.

In addition, a paper co-authored by Dr. Ting Wang, ECCC Director, and Dr. Jobaidur Khan, ECCC Project Engineer, was presented at the 2010 Turbo Expo in Glasgow, Scotland was chosen as the Best Paper by the Industrial and Co-generation Committee. The paper was entitled, "3D Modeling for Wet-compression in a Single Stage Compressor Including Liquid Particle Erosion Analysis."

ECCC promotes clean energy research and education to enhance regional economic growth, and to develop energy programs that are environmentally friendly and sustainable. It is directed by Ting Wang, UNO professor of mechanical engineering.

## ***NSF EPSCOR FY2011 Pfund Awards***

### **Simon Lailvaux Biological Sciences**

"Pedigree reconstruction and animal model estimation of the G matrix using microsatellites in *Anolis carolinensis*"

### **Robert Laird Psychology**

"A trip to the DMV can offer insight into autonomy development"

### **Matthew Tarr Chemistry**

"Novel nanoarchitectures for improved dye sensitized solar cells"

### **Dongxiao Zhu Computer Science**

"An informatics framework for joint analysis of differential expression and differential splicing using RNA-seq data"

## ***Economic Development Administration Award***

The Institute for Economic Development and Real Estate Research received an award from the Economic Development Administration to conduct a seafood processing and marketing cooperative feasibility study. The project will directly benefit fishermen and others involved in or dependent upon seafood harvesting, production, processing and marketing who have been significantly and adversely impacted by the BP oil spill. It focuses on developing an organization and physical plant investments that will save and create jobs in the region. A co-op model offers the potential to share burdens, risk, and rewards amongst the fishing community. In addition, such a facility could provide members/owners with discounted prices through economies of scale by jointly purchasing fuel, supplies and other equipment.

# ***Professional Development for Research***

## ***Responsible Conduct of Research Training***

It has been a year since the Office of Research started requiring the Responsible Conduct of Research (RCR) training for all individuals performing research on National Science Foundation (NSF) and (DHHS) National Institutes of Health (NIH) grants. This training is done online through Share-Point. However, both NSF and NIH strongly recommend that the training not be done strictly online. Therefore, the Office of Research will be conducting discussion sessions of research ethics cases or an interactive video to meet this requirement. Individuals who receive some form of compensation from either NSF or DHHS must attend.

The first scheduled session will be lead by Dr. Johnson from the Philosophy Department on Wednesday April 20<sup>th</sup> in LA 362 from noon to 1 p.m. Space is limited to promote discussion so register by using this link: [Professional Development Registration](#). (Navigation in SharePoint is: Research, Training, Professional Development Registrations).

As other sessions are scheduled, an announcement will be made. If your department or college already conducts an ethics related meeting periodically, please contact Carol Mitton ([cmitton@uno.edu](mailto:cmitton@uno.edu) or extension 5546) to determine if this will satisfy the requirement of live ethics training.

## ***Online Professional Development***

This semester ORSP is working to develop online Professional Development sessions; these sessions are based on workshops held on campus in previous semesters. Once the training is complete, you will be able to view the sessions at your convenience. A completion date has not been set, but an announcement will be made once the sessions become available. Traditional in-person Professional Development sessions will be offered again periodically starting in the fall. If you have any questions, please contact Carol Mitton at [cmitton@uno.edu](mailto:cmitton@uno.edu) or extension 5546.

## ***NIH All About Grants Podcasts***

The Office of Extramural Research within the National Institutes of Health (NIH) has numerous podcasts for viewing on different grant application topics. NIH staff members are the speakers. These podcasts are an opportunity to improve your NIH applications as the funding is becoming more competitive.

Please take a moment to examine the list of currently available podcasts by clicking this link:

[http://grants.nih.gov/podcasts/AllAbout Grants/index.htm](http://grants.nih.gov/podcasts/AllAboutGrants/index.htm)

Updates to the podcasts occur every other week.

## ***NIH Online Resources***

[New Sample Ro1 Applications and Summary Statements](#)

[Common Mistakes in Writing Applications](#)

[Advice for Early Stage and New Investigators, including choosing a grant type](#)

[Peer Review Process](#)

[NIH Peer Review Revealed \(YouTube\)](#)

[Funding Opportunities and Notices](#)

[Public Health Service Application Guide](#)

[General Information](#)

[Correlation between Overall Impact Scores and Criterion Scores](#)



## Summer Research Program Awards

The following UNO faculty received 2011 Summer Research Program awards from the Office of Research and Sponsored Programs:

### SCoRe (Stimulating Competitive Research)

#### Charles Bell

Evolving Patagonia

#### Lothar Birk

FeatureBased, Automated Hull Shape Generation

#### Huimin Chen

Estimation and Model Selection for Prognostics Using Minimum Description

#### Richard Frank

The Politics of Human Trafficking

#### Robert Laird

Parenting Teen Drivers (Pilot Data)

#### Zhengchang Liu

Regulation of TORC2 Signaling in Human Cell Lines

#### Tumulesh Solanky

Statistical Modeling of Cancer Clusters in Louisiana

#### Christopher Taylor

Pure Sequence-based Classification for Microbial Communities

### CEO (Creative Endeavor Opportunity)

#### Olivier Bourderionnet

Swing Troubadours Brassens, Vian, Gainsbourg: les Trente Glorieuses en 33 tours

#### Belinda Cambre

Understanding the Impact of High-Stakes Testing in Louisiana Ten Years

#### Caroline Carson

Collaboration on Writing and Publishing a Book (In Two Languages)

#### Celeste Conefry

On Virtue, Slaves and Savages: The Caribbean "Other" and Post-Revolutionary French Identity in an Early Nineteenth Century Juvenile Novel

#### Erik Hansen

Spring Film Project 2012 -- "Everything Happens"

#### Matthew Jacobsmeier

Social Groups, Perceptions of Candidates' Ideologies, and Elections: A Research Agenda Moving Forward

#### Daniel Lewis

Lobbying, Counteractive Lobbying & Legislative Success

#### Rachel Luft

Disaster Manarchy: An Intersectional Analysis of Post-Katrina Social Movements

#### Kyeong Sam Min

When to say I'm sorry? Effects of apology timing on consumer satisfaction

#### John Overton

Similarities and Differences of Fine Art and Still Photography Composition

#### Anne Rioux

A Life of Constance Fenimore Woolson

#### Dan Rule

Neutral Ground - Solo Exhibition

#### Christopher Saucedo

Public Sculpture Project Completion, St Claude Gates, UNO Gallery

### SUE (Summer Undergraduate Experience)

#### Michael Mizell-Nelson

Public History and Digital History Workshop

#### Pierre F. Poudeu Poudeu

Exploration of Sub-nanometer Scale Phase Boundary Strategy to Advanced High Performance Thermoelectric Nanocomposites



*At left:  
A model of  
Christopher  
Saucedo's public  
sculpture for the  
UNO Gallery on  
St. Claude  
Avenue*