
UCR Research and Economic Development Newsletter: August 11, 2012

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Vice Chancellor for Research and Economic Development

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Introduction

I began my position as Vice Chancellor of Research and Economic Development a little over a month ago. I'm initiating this newsletter to communicate research issues to the UCR community. Some of my goals include:

- Being an advocate for research & scholarship in all disciplines
- Involving more undergraduate students in research
- Helping to grow the research funding, particularly from the federal government
- Making UCR a major driver of economic development in the region
- Providing streamlined services and support to faculty and departments submitting grants

To reflect the broader mission, the Office of Research has been renamed the Research and Economic Development Office. I come to UCR from Rutgers, where for the last six years I served as Vice President for Research and Economic Development. Prior to that I was a division director at the National Science Foundation (in Information and Intelligent Systems), served on the Board of Regents of the National Library of Medicine, founded a software company to commercialize my research, and was on the faculty of UC Irvine for many years.

Since I'm new to UCR, I still have much to learn. I'm looking forward to working with faculty and academic leadership to advance UCR's research profile. Please consider inviting me to a department meeting in the fall or contacting my assistant (Gloria Gallego, gloriag@ucr.edu, 951-827-4800) to set up a meeting to discuss your research or your thoughts on research or economic development.

NSF Acceptance Rates

Some federal funding agencies publish statistics on the acceptance rates of proposals in various directorates and programs. For the most recent year, the NSF acceptance rates and median annual award sizes are below.

Organization	Number of Proposals	Number of Awards	Funding Rate	Median Annual Size
NSF Overall	51,551	11,185	22%	\$106,257
BIO	7,437	1,308	18%	\$145,286
CSE	5,996	1,378	23%	\$133,333
EHR	4,660	807	17%	\$149,740
ENG	12,296	2,047	17%	\$110,076
GEO	4,514	1,415	31%	\$121,352
MPS	8,798	2,355	27%	\$100,000
O/D	2,059	581	28%	\$19,943
OPP	680	297	44%	\$136,882
SBE	5,111	997	20%	\$47,008

Due to an increased emphasis on climate related research, the ATMOSPHERIC and GEOSPACE SCI division has had some fairly high acceptance rates recently:

Program	Number of Proposals	Number of Awards	Funding Rate	Median Annual Size
AERONOMY	58	40	69%	\$103,680
ATMOSPHERIC CHEMISTRY	99	55	56%	\$176,114
CLIMATE & LARGE-SCALE DYNAMICS	168	78	46%	\$131,709
CR, Earth System Models	65	22	34%	\$323,576
MAGNETOSPHERIC PHYSICS	81	32	40%	\$100,000
PALEOCLIMATE PROGRAM	45	30	67%	\$133,605
PHYSICAL & DYNAMIC METEOROLOGY	91	51	56%	\$165,697
SOLAR-TERRESTRIAL	76	24	32%	\$124,070
UPPER ATMOSPHERIC FACILITIES	52	16	31%	\$85,305

I advise faculty that their chances are double the average if they submit a proposal that is novel and addresses all of the criteria in the call for proposals. In my experience at NSF, about half the proposals submitted have no chance of being funded because the PI proposes something that is a minor or obvious increment over what has been done in the past or leaves out a component that is required (such as an assessment plan).

You can drill down on other NSF programs and divisions at <http://dellweb.bfa.nsf.gov/awdfr3/default.asp>. Future newsletters will include acceptance rates of other agencies.

Promoting Your Research

“Articles freely available online are more highly cited. For greater impact and faster scientific progress, authors and publishers should aim to make research easy to access.” - S. Lawrence, Online or Invisible, Nature, Volume 411, Number 6837, p. 521, 2001.

Faculty benefit when it’s easy for others to find your research. Decades ago, journals would provide printed reprints of articles. To promote their research, some faculty mailed hard copies to other scholars they thought

would be interested. In this century, it's even easier to share articles electronically by email and on websites and open archives.

One way to enable others to find all of your publications easily is to create a Google Scholar profile. See http://www.sciencesurvivalblog.com/high-impact-journals/why-every-scientist-should-make-his-google-scholar-profile-public_5875 for a longer discussion and <http://scholar.google.com/> to get started (look for "My Citations at the top). Google Scholar interfaces with publishers and universities libraries to provide access to publications that require subscriptions. A new feature in Google Scholar will send you an email when new citations to your articles are published.

If you'd like to see my profile as an example, go to <http://scholar.google.com/citations?user=bhO5bMAAAAJ&hl=en>.

Finding Grant Opportunities

The Research and Economic Development Office has a trial subscription to a COS, a service for finding grant opportunities. COS was once called Community of Science, but its grant database is much broader than science. It includes all academic disciplines including Arts, Humanities, Engineering, Education, Business, and Medicine. It includes foundation opportunities as well as federal funding agencies. To try COS, go to <http://pivot.cos.com> If you are using a computer on the UCR campus, it should recognize that you have a subscription and allow you to create an account you can use anywhere. Some features of COS are:

1. Searching for grant opportunities by keyword or agency.
2. After you have done a search, you can save it to get email alerts when new opportunities are announced that match the search criteria,
3. Searching for grant opportunities that match your profile. For most faculty, it will have already created a profile from publicly available data such as publications and grants. Instead of typing keywords, COS finds opportunities related to your publications.
4. For a grant opportunity, finding faculty at UCR that might apply or be interested in collaborating by matching their profile.

Below are some screen captures of using COS:

- Searching for grant opportunities on Digital Preservation

<input type="checkbox"/>	Sort by	Relevance ▼	Opp title ▼	Sponsor ▼	Deadline ▼	Amount ▼
<input type="checkbox"/>		1.	Preservation and Access Education and Training Grants National Foundation for the Arts and the Humanities National Endowment for the Humanities (NEH) Division of Preservation and Access		Jun 28, 2013	\$500,000
<input type="checkbox"/>		2.	Preservation and Access Research and Development Grants National Foundation for the Arts and the Humanities National Endowment for the Humanities (NEH) Division of Preservation and Access		May 16, 2013	\$400,000
<input type="checkbox"/>		3.	National Geological and Geophysical Data Preservation Program (NGGDPP) United States Department of the Interior (DOI) U.S. Geological Survey (USGS)		May 21, 2013	see note
<input type="checkbox"/>		4.	ACLS Digital Innovation Fellowships American Council of Learned Societies (ACLS)		Oct 02, 2012	\$85,000
<input type="checkbox"/>		5.	Heritage Grants Kansas Humanities Council (KHC)		Sep 05, 2012	\$3,500
<input type="checkbox"/>		6.	Data Infrastructure Building Blocks (DIBBs) National Science Foundation (NSF) Office of Cyberinfrastructure (OCI)		Aug 30, 2012	\$8,000,000
<input type="checkbox"/>		7.	National Leadership Grants Institute of Museum and Library Services (IMLS)		Feb 01, 2013	\$1,000,000
<input type="checkbox"/>		8.	Cultural and Environmental Grants for U.S. Nonprofits Working in Russia and East and Central Europe Trust for Mutual Understanding (TMU)		Nov 01, 2012	see record

- Suggestions for grant opportunities based on a faculty profile

Funding matches

426 Funding opportunity matches for:

David Lo

Division of Biomedical Sciences, University of California, Riverside

Profile country filters: United States Unrestricted opps included

Share	Ordered by: match relevance	1-10 of 4
<input type="checkbox"/>		Next
<input type="checkbox"/>	 Division of Allergy, Immunology, and Transplantation (DAIT) - SBIR/STTR	Sponsor:
<input type="checkbox"/>	 Gates Vaccine Innovation Award	Sponsor:
<input type="checkbox"/>	 Immunization and Vaccines for Children Program	Sponsor:
<input type="checkbox"/>	 Vaccine Preventable Diseases: Technological Innovation to Enhance Vaccine and Immunization Program Effectiveness - SOL1001093	Sponsor:
<input type="checkbox"/>	 Additional Support for NIH-funded F32 Postdoctoral Fellows Awards Program	Sponsor:
<input type="checkbox"/>	 Immunization Information Systems Sentinel Site Project	Sponsor:
<input type="checkbox"/>	 2012 Advancing Research in Transplantation Science (ARTS) Awards	Sponsor:
<input type="checkbox"/>	 Research to Advance Vaccine Safety (R21)	Sponsor:
<input type="checkbox"/>	 Research Grants	Sponsor:
<input type="checkbox"/>	 Research to Advance Vaccine Safety (R01)	Sponsor:

1 2 3 4 |

- Searching for Collaborators on DARPA's Functional Materials program

Faculty matches

14 Faculty matches within my institution for opp:

Opportunity

Functional Materials

Share	Ordered by match relevance	1-10 of 14 res	
<input type="checkbox"/>			
<input type="checkbox"/>	Myung, Nosang Vincent	Associate Professor, Assistant Professor	Chemical & Environmental Engineering, University of California, Riv
<input type="checkbox"/>	Yin, Yadong	Assistant Professor	Materials Science and Engineering Program, University of California Riverside
<input type="checkbox"/>	Kawakami, Roland	Assistant Professor	Department of Physics and Astronomy, University of California, Riv
<input type="checkbox"/>	Abbaschian, Reza	Dean/Distinguished Professor	Department of Mechanical Engineering, University of California, Riv
<input type="checkbox"/>	Lyubomirsky, Ilya	Assistant Professor	Electrical Engineering, University of California, Riverside
<input type="checkbox"/>	Liu, Jianlin	Associate Professor	Materials Science and Engineering Program, University of California Riverside
<input type="checkbox"/>	Haberer, Elaine	Assistant Professor	Electrical Engineering, University of California, Riverside
<input type="checkbox"/>	Garay, Javier E.	Assistant Professor	Department of Mechanical Engineering, University of California, Riv
<input type="checkbox"/>	Haddon, Robert	Distinguished Professor	Chemical & Environmental Engineering, University of California, Riv
<input type="checkbox"/>	Ozkan, Cengiz S.	Associate Professor, Assistant Professor	Department of Mechanical Engineering, University of California, Riv

Give COS a try at <http://pivot.cos.com> and let me know if you think we should continue with COS after the free trial.

Agriculture and Food Research Initiative (AFRI) Interagency Programs

Interagency programs often reflect multi-year federal research priorities and increased investment in a research topic by many agencies. Below are the interagency priorities of USDA/AFRI. (source: http://www.nifa.usda.gov/funding/afri/afri_interagency_programs.html)

Decadal and Regional Climate Prediction using Earth System Models

The Decadal and Regional Climate Prediction using Earth System Models (EaSM) solicitation is intended to capitalize on the synergy between development of climate models, their use in assessment and attribution of climate variability and impacts, and the development of approaches to effectively inform adaptation policy. EaSM's goal is to improve upon and expand on current modeling capabilities in order to substantively contribute to the advancement of reliable regional and decadal climate predictions. Submission of the application is through the National Science Foundation.

Ecology and Evolution of Infectious Diseases

As a collaborative interagency effort, the National Institute of Food and Agriculture (NIFA) of the U.S. Department of Agriculture (USDA), the National Science Foundation (NSF), the National Institutes of Health (NIH), and the U.K. Biotechnology and Biological Sciences Research Council (BBSRC) ... This interagency program announcement solicits applications that support research on the ecological, evolutionary, and socio-ecological principles and processes that regulate the transmission dynamics of infectious diseases. The program's focus is on both the discovery, and the building and testing models that elucidate these principles and processes. Research proposals should focus on understanding the determinants of transmission of diseases to humans, non-human animals (including species of agricultural relevance such as ruminants, swine, poultry, equine, aquacultured species), or plants; the spread of pathogens by environmental factors, vectors or abiotic agents; the population dynamics and genetics of reservoir species or alternate hosts; or the cultural, social, behavioral, and economic dimensions of disease transmission.

National Robotics Initiative

The goal of the National Robotics Initiative is to accelerate the development and use of robots in the United States that work beside, or cooperatively with, people. Innovative robotics research and applications emphasizing the realization of such co-robots acting in direct support of and in a symbiotic relationship with a human is supported by multiple agencies of the federal government including the National Science Foundation (NSF), the National Aeronautics and Space Administration (NASA), the National Institutes of Health (NIH), the U.S. Department of Agriculture (USDA) and others. The purpose of this program is the development of this next generation of robotics, to advance the capability and usability of such systems and artifacts, and to encourage existing and new communities to focus on innovative application areas.

Plant Feedstock Genomics for Bioenergy

The goal of the Plant Feedstock Genomics for Bioenergy solicitation is to support fundamental research on biomass genomics and provide the scientific foundation to facilitate use of lignocellulosic materials—i.e., nonfood plant fiber—for bioenergy and biofuels. The program is supported by the U.S. Department of Agriculture (USDA) and the U.S. Department of Energy (DOE) and emphasizes research on perennials, including trees and various grasses that can be developed as dedicated bioenergy feedstocks. Combining DOE's leadership in genome-scale technologies with USDA's long experience in crop improvement will help accelerate development of such specialized crops and improve their effectiveness as feedstocks for biofuels production.

Specific areas of interest include: (1) Phenotyping plant germplasm collections and advanced breeding lines in public breeding programs of bioenergy crops (energy cane, Miscanthus, sorghum, switchgrass, Populus) to discover and deploy valuable alleles for bioenergy traits such as: biomass yield, quantity and quality of key metabolites (sugars, starches, lignocelluloses); adaptation to temperature extremes, drought (water use efficiency), salinity, and nitrogen use efficiency. (2) Fundamental research to enhance translation of genomics information into cultivar improvement ("phenomics") utilizing candidate bioenergy crops, specifically perennial grasses and woody biomass crops, for which genomic resources are available or are currently being developed to include: genotype-to-phenotype: functionality determination and confirmation of candidate bioenergy-relevant genes (biomass yield, quantity, and quality; environmental adaptation); systems biology approaches, including integration of complex data, to predict phenotype from genotype (e.g., reconstruction of metabolic pathways and regulatory networks relevant to bioenergy traits).

Water Sustainability and Climate

The goal of the Water Sustainability and Climate (WSC) solicitation is to understand and predict the interactions between the water system and climate change, land use (including agriculture, managed forest and rangeland systems), the built environment, and ecosystem function and services through place-based research and integrative models. Studies of the water system using models and/or observations at specific sites singly or in combination that allow for spatial and temporal extrapolation to other regions, as well as integration across the different processes in that system are encouraged, especially to the extent that they advance the development of theoretical frameworks and predictive understanding.

Promoting Research Objectivity

It is my goal as Vice Chancellor of Research and Economic Development to make sure that UCR complies with all federal, state and UC regulations while at the same time making it easy for faculty to do so. I will strive to make sure that UCR imposes no requirement on researchers that is not mandated by sponsors or UCOP.

If you conduct sponsored research, you may have received or soon will receive an e-mail mandated by UCOP Office of Ethics, Compliance and Audit Services on taking the 2012 Compliance and Conflict of Interest for Researchers Briefing (COIR). I encourage all that receive this notification to take the briefing. I have reviewed the briefing material and it takes a little less than an hour or so to go through it. The email you receive will provide a link to the course. If you want to review the material at any time, it is available at http://www.universityofcalifornia.edu/compaudit/compli_brfng_coi4res.html.

I avoid the use of the term “conflict of interest” to stress that relationships with industry and commercialization of technology are not activities that should be avoided. I prefer to use the term “Promoting Research Objectivity” that NIH uses in some of its guidelines to discuss the goals of the regulations. To promote objectivity in research, some relationships need to be disclosed and research conducted in such a way as to insure that financial interest does not affect the conduct of the research. Identification of a financial interest is not evidence of misconduct or bias. Disclosure creates the opportunity to manage, reduce, or eliminate even the appearance of bias.

On August 24, 2012, all universities are required by Public Health Service (PHS) to implement updated procedures for Promoting Research Objectivity that affect faculty submitting to PHS agencies including NIH, AHRQ, and HRSA, as well as foundations and associations that follow PHS regulations such as American Heart Association, American Cancer Society, Arthritis Foundation, Susan G. Komen Foundation, and Alliance for Lupus Research. See <http://grants.nih.gov/grants/policy/coi/index.htm> for more information. Two components of this regulation affect faculty.

1. Training. Fortunately, taking the UCOP Office of Ethics, Compliance and Audit Services satisfies the training requirement.
2. Disclosure. The Electronic Campus Approval Form (eCAF) is being modified to include a new section when submitting a grant to an agency that requires financial disclosures. This is still under development and details will be available before the deadline.

Vermillion Flycatcher

I plan on closing the research newsletters with an item not related to research or economic development such as a wine recommendation or a photo from my hobby of bird watching. Here’s a photo of a Vermillion Flycatcher. In the Riverside area, they can be found fairly reliably at the Prado Regional Park in Chino. This one was by hole #5 of the Frisbee golf course.



(click to enlarge photo)

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