

# RESEARCH OMNIBUS

A Newsletter for the Cal State L.A. Research Community

Office of Research and Development, Academic Affairs, Cal State L.A.  
Office of Research and Sponsored Programs, University Auxiliary Services, Inc.

April 2010

## ***New Award Highlight: Diane Haager – “A Reform-Minded Los Angeles Urban Teacher Residency Program”***



**Diane Haager (Special Education and Counseling)** has received a five-year grant entitled “A Reform-Minded Los Angeles Urban Teaching Residency Program” from the U.S. Department of Education. The \$8.8 million grant is a collaborative partnership among Cal State L.A.; the Center for Collaborative Education; Los Angeles Unified School District; the Mayor’s Partnership for Los Angeles Schools; three community organizations – Families In Schools, Alliance for a Better Community, and Central American Resource Center; the Los Angeles Pilot Schools Network; United Teachers Los Angeles; and WestEd Research. The project’s curriculum director is **A. Dee Williams (Curriculum and Instruction)**.

The partnership will establish a 15-month community and teacher residency program aligned with California state standards for teacher certification and induction, coupled with Cal State L.A.’s requirements for a master’s degree in education, to prepare teachers to enter into high-need Los Angeles public schools. The residency will integrate theory and practice in a blend of graduate-level coursework, project-based experiences, and collaborative professional learning through highly supported cohort communities. Residents will be paired with mentor teachers in reform-minded schools within the Los Angeles Unified School District. While in the classroom, resident-teachers will receive a \$21,000 stipend. Upon completion of the program, participants will earn both a teaching credential and a master’s degree. Beginning with a first-year cohort of 25 teacher residents and growing to a cohort of 75 in the fifth year, the program will enroll 250 resident teachers over the life of the initiative and create a permanent pipeline of innovative, effective new teachers for the district.

Cal State L.A. is one of only five grantees selected from a pool of 17 California applicants. Nationwide, only 28 of 172 proposals were funded.

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## ***Student Research Symposium Winners Honored; Top Oral Presenters Prepare for Statewide Event***



Winners of the 18<sup>th</sup> annual Cal State L.A. Student Symposium on Research, Scholarship and Creative Activity were honored on March 3 in the University Club. Both oral and poster presenters were recognized, and the 11 students selected to represent Cal State L.A. as statewide delegates to the 24<sup>th</sup> CSU Student Research Competition were named. In addition, a Phi Kappa Phi \$1,000 travel award was presented to Natalie Sandoval, master’s student in Biology, for the best presentation of the symposium. The symposium was co-sponsored by the Office of Research and Development, Office of Research and Sponsored Programs, and The Honor Society of Phi Kappa Phi.

*Dr. Kevin Baaske, Phi Kappa Phi officer, with student travel award winner Natalie Sandoval.*

To help prepare for the CSU Student Research Competition at San Jose State University April 30 to May 1, the delegates will participate in a half-day workshop offered by emerita faculty member Janet Fisher-Hoult and her husband, Charles Hoult, from Northrop Grumman, both of whom volunteer each year to serve as judges for the campus competition. For many years, they have generously donated additional time to coach the delegates to the statewide competition.

Students receiving awards in each category of the campus symposium are listed below.

## **Oral Presentations**

### **Engineering and Computer Science I**

#### **1<sup>st</sup> place - Hector Ramirez, Statewide Delegate**

M.A. Industrial and Technical Studies

*Root Cause Analysis of Low Fuel Cell Voltage Generation*

Faculty Mentor: Dr. David Blehman

#### **2<sup>nd</sup> place - Emerzon Cruz, Sandra Ibarra, Henry Luong, and Brian Vazquez**

B.S. Mechanical Engineering

*Flow Visualization Investigation of Soot Formation in a Jet Engine Combustion Chamber*

Faculty Mentor: Dr. Darrell Guillaume

### **Engineering and Computer Science II**

#### **1<sup>st</sup> place - Jessica Alvarenga, Statewide Delegate**

M.S. Electrical Engineering/B.S. Electrical Engineering

*State Estimation of a segmented telescope testbed using a Kalman Filter Algorithm*

Faculty Mentor: Dr. Helen Boussalis

#### **2<sup>nd</sup> place - Bin (Owen) Mo**

M.A. Geography

*GIS Network Analysis for Finding the Potential Metro Rail Ridership by Access Modes in Los Angeles County*

Faculty Mentor: Drs. John Kirchner and Hong-Lie Qiu

### **Biological Sciences I**

#### **1<sup>st</sup> place - Natalie A. Sandoval, Statewide Delegate & Travel Award**

M.S. Biology

*Novel Putative Function of the Host Defense Protein PLUNC: Carrier of Antimicrobial Cholesteryl Esters in Respiratory Epithelial Secretions*

Faculty Member: Dr. Edith Porter

#### **2<sup>nd</sup> place - Connie Lee, Statewide Delegate**

M.S. Biology

*The Effect of Loose versus Rigid Robotic Assistance on the Hindlimb during Treadmill Stepping in Spinally Contused Rats*

Faculty Mentor: Dr. Ray de Leon

### **Biological Sciences II**

#### **1<sup>st</sup> place - Dominique T. Richardson, Statewide Delegate**

M.S. Environmental Science, Environmental Biology Option

*Incorporating animal behavior and environmental education into conservation biology*

Faculty Mentor: Dr. Paul Narguizian

#### **2<sup>nd</sup> place - Rebecca Flegel**

M.S. Biology

*Using GIS to Model Disturbance in Mussel Beds*

Faculty Mentor: Dr. Carlos Robles

**Behavioral and Social Sciences I**

**1<sup>st</sup> place - Juan Landeros and Eden Chavez, Statewide Delegates**

B.A. Anthropology

*Fiesta Zoogochense: Evaluating Generational identity of a Dispersed Zapotec Community in Los Angeles Through Ritual Clothing*

Faculty Mentor: Dr. James Brady

**2<sup>nd</sup> place - David Jamison**

M.A. History

*Continental Divide: Money, Power, and Corporate Politics in the Field of African Studies in America from 1957 to 1969*

Faculty Mentor: Dr. Choi Chatterjee

**Behavioral and Social Sciences II**

**1<sup>st</sup> place - Charissa Kim, Statewide Delegates**

B.S. Biology

*Effects of pretraining lesions of the amygdala on effortful behavior in rats*

Faculty Mentor: Dr. Alicia Izquierdo

**2<sup>nd</sup> place - Phoutdavone Phimphasone**

M.A. Psychology

*The Relationship of Hostility, Sadness, and Self-Esteem on the Perception of Future Events*

Faculty Mentor: Dr. Ji Son

**Humanities and Letters**

**1<sup>st</sup> place - Erin Thomason, Statewide Delegates**

*Re-imagining China: Dress and Nationhood in the Remaking of China*

M.A. Anthropology, Sociocultural Anthropology Option

Faculty Mentor: Dr. Kate Sullivan

**2<sup>nd</sup> place - Remy Ashe**

M.A. Communication Studies

*Coco Avant Chanel: An Adaptive Imbrication of Modernism and Self-Identity*

Faculty Mentor: Dr. Steve Classen

**Physical Sciences and Mathematics**

**1<sup>st</sup> place - Coleman Dobson, Statewide Delegate**

B.S. Mathematics, Pure and Applied Mathematics Options and Physics

*Ring Particle Temperature Variation with Changing Geometry*

Faculty Mentor: Dr. Susan Terebey

**2<sup>nd</sup> place - Wayne Warner**

B.S. Biochemistry

*In silico Identification of F.D.A. approved drugs that bind to MDM2*

Faculty Mentor: Dr. Jamil Momand

**Health, Nutrition and Clinical Sciences**

**1<sup>st</sup> place - Jacqueline Kiwata, Statewide Delegate**

M.S. Kinesiology, Exercise Science Option

*The effect of exercise on antimicrobial cholesteryl ester concentrations in upper respiratory tract secretions*

Faculty Mentors: Drs. Edith Porter and Nazareth Khodigiuan

## Poster Presentations

### **Behavioral and Social Sciences**

**Roberto Marquez and Jennifer McGee**

M.A. Psychology

*Independent and Interdependent Self-Construals Are Not Associated to Cognitive Processing Style*

Faculty Mentor: Dr. Joel Ellwanger

### **Health, Nutrition and Clinical Sciences**

**Edward Leon**

M.S. Kinesiology, Exercise Science Option

*Effect of Oral Sodium Bicarbonate Supplementation on Buffering Capacity of Blood during Short-term Exposure to Hypobaric Hypoxia in High-Intensity, Short-Duration Cycling Exercise*

Faculty Mentor: Dr. Nazareth Khodiguian

### **Biological Sciences I**

**Elizabeth Im, Selma Cuya, Kevin Chau, and X.-Z. Sun**

M.S. Biology

*Microscopic analysis of mouse hindlimb muscles in the MyoD null mouse – control studies in a test for functional redundancy of p53 and MyoD in muscle development*

Faculty Mentor: Dr. Sandra Sharp

### **Biological Sciences II**

**Erika Vielmas**

M.S. Biochemistry

*Investigation of the Binding of Toxic Metal Ions to Formamidopyrimidine-DNA Glycosylase (Fpg)*

Faculty Mentor: Dr. Xin Wen

### **Biological Sciences III**

**Amanda Van Leersum**

M.S. Biology

*Identification of the cause of the failure of reverse genetics to generate viruses*

Faculty Mentor: Dr. Nancy McQueen

### **Physical and Mathematical Sciences**

**Joshua E. Cohen**

M.S. Chemistry

*Improvements to the Binding Site of a Naphthopyran-Based Photochromic Calcium Chelator*

Faculty Mentor: Dr. Alison McCurdy

### **Physical and Mathematical Sciences I**

**Tiffany Kwong and Julian Bouzanquet**

M.S. Physics/B.S. Physics

*Quantum Dot Photoluminescence Emission*

Faculty Mentors: Drs. Michiaki Ishimura and William

Taylor

### **Physical and Mathematical Sciences II**

**Gargey Yagnik**

M.S. Chemistry, Analytical Emphasis

*The Influence of Amyloid- $\beta$  on Fe(III)-catalyzed dopamine oxidation kinetics and the mechanism*

Faculty Mentor: Dr. Feimeng Zhou

### **Engineering**

**Pouya Vahmani**

M.S. Civil Engineering

*Microtextural analysis of weathering in CO<sub>2</sub> saturated soils*

Faculty Mentor: Dr. Crist Khachikian

**NOTE:** The Student Travel Program is now being administered by the Office of Graduate Studies. Information may be obtained by calling x3820.

## Recent Grant and Contract Awards

A number of new and continuing grants and contracts have been awarded since November 1, 2009, in a wide range of disciplines. Funding levels shown are annual amounts. Congratulations to these PIs on their awards!

<b><u>Principal Investigator</u></b>	<b><u>Project Title</u></b>	<b><u>Funding Source</u></b>	<b><u>Awarded Amount</u></b>
David Blekhman	"Effective Decision Making Starts with an Effective Curriculum"	CSUSB (U.S. DOT)	\$5,000
David Blekhman	"Building Hydrogen Economy One Block at the Time"	CSUSB (U.S. DOT)	\$5,000
Mary Falvey	"Pre-College and Pre-Services Program"	LAUSD	\$6,180
Carolyn Frank	"Los Angeles Writing Project, CSMP State"	UC Regents (CA Dept of Educ)	\$28,000
Frank Gomez	"Revolutionizing Metallic Biomaterials for National Science Foundation" supplement	North Carolina A&T State Univ (NSF)	\$45,000
Frank Gomez	"MRSPEC"	Caltech (NSF)	\$45,000
Hassan Hashemian	"Garrett A. Morgan Technology and Transportation Education Program (GAMTTEP)"	Montebello Unified SD (U.S. DOT)	\$59,095
Barry Hibbs	"Completion and Initial Implementation of Marine Water Quality Monitoring Protocol for Cabrillo National Monument"	National Park Svc	\$16,803
Barry Hibbs	"Assessment of the MEDN Water Quality Monitoring Protocol as implemented in the Santa Monica Mountains (SAMO)" supplement	National Park Svc	\$51,088
Lorie Judson	"Southern California Regional Simulation Center"	CSU San Marcos (CA Dept of Educ)	\$16,873
Robert Land	"The Pathway Project: A Cognitive Strategies Approach to Reading and Writing Instruction for Teachers of Secondary English Language Learners" supplement	UC Irvine (U.S. Dept of Educ)	\$20,000
Paul Liu	"Imaging Process"	Lockheed Martin	\$100,000
Paul Liu	"Lockheed Martin Travel Project"	Lockheed Martin	\$3,000
Paul Liu	CSULA Mentor-Protégé	Northrop Grumman	\$5,000
Don Maurizio	"Wire Scanner Development"	Harvey Mudd College (Los Alamos Natl Laboratory)	\$23,121

<b><u>Principal Investigator</u></b>	<b><u>Project Title</u></b>	<b><u>Funding Source</u></b>	<b><u>Awarded Amount</u></b>
Holly Menzies	"California Reading Literature Project"	UC Regents (CA Dept of Educ)	\$32,400
Holly Menzies	"Alternative Certification Program"	Saugus Union School Dist	\$119,700
Holly Menzies	"Contracted Services for Sulfur Springs School District"	Sulfur Springs School Dist	\$11,250
Holly Menzies	"Contracted Service for Whittier Union School District"	Whittier Union School Dist	\$14,250
Keith Moo-Young	"MESA Schools Program"	UC Regents MESA Schools Program	\$200,000
Keith Moo-Young	"Strategic Alliance Initiative"	Southern Calif Edison	\$25,000
Keith Moo-Young	"Professional Practice Program"	Southern Calif Edison	\$40,000
Keith Moo-Young	"Strategic Alliance Initiative"	The Boeing Company	\$23,000
Keith Moo-Young	"SCE CSULA Investment Plan for Advanced Energy"	Southern Calif Edison	\$31,000
Keith Moo-Young	"Professional Practice Program"	Pratt & Whitney Rocketdyne, Inc.	\$20,000
Keith Moo-Young	"Professional Practice Program"	Pratt & Whitney Rocketdyne, Inc.	\$20,000
Keith Moo-Young	"Professional Practice Program"	Northrop Grumman	\$20,000
Keith Moo-Young	"Professional Practice Program"	The Boeing Company	\$20,000
Karen Nielsen- Menicucci	"Advanced Education Nursing Traineeships"	Health Resources & Svcs Admin	\$73,171
Parviz Partow-Navid	"Advanced Technological Education Program Regional Information Systems Security Center" supplement	Mt. San Antonio Comm Coll Dist (NSF)	\$19,300
Patricia Ramirez-Ulloa	"Child Development Programs"	CA Dept of Education	\$50,000
Patricia Ramirez-Ulloa	"Child Development Services 2009-10 Instructional Materials"	CA Dept of Education (USDoEd)	\$1,021
Patricia Ramirez-Ulloa	"Head Start Program Enhancement Services"	Plaza de la Raza Child Devel Svcs (DHHS)	\$95,000
Patricia Ramirez-Ulloa	"Child Care Food Program 2009-10"	CA Dept of Educ	\$112,433
Jaime Regalado	"Los Angeles: State of the City Report for 2010 and Beyond"	Haynes Foundation	\$51,750
Edward Rezayi	"Design Principles for Quantum Hall States"	Princeton Univ (U.S. Dept of	\$100,000

<b><u>Principal Investigator</u></b>	<b><u>Project Title</u></b>	<b><u>Funding Source</u></b> (Energy)	<b><u>Awarded Amount</u></b>
Jose Rodriguez	"Theoretical Study of Quantum Magnetism in New Iron-Based High-Temperature Superconductors"	Air Force Office of Scientific Research	\$107,977
Anthony Ross	"California Student Opportunity & Access Program (Cal-SOAP)"	California Student Aid Commission	\$68,140
MaryAnne Schultz	"ARRA – Scholarships for Disadvantaged Students"	Health Resources & Svcs Admin	\$11,268
Sandra Sharp	"Cal Poly Pomona and Cal State L.A. Collaborative CIRM Bridges Program to Enhance Stem Cell Research Training and Education"	Cal Poly, Pomona (CIRM)	\$61,830
Simeon Slovacek	"MORE RESULTS"	NIH Recovery Act	\$142,093
Simeon Slovacek	"Los Angeles Apprentice Teacher Program (LA-ATP)"	LAUSD (U.S. Dept of Educ)	\$84,790
Simeon Slovacek	"Science Education Partnership Award (SEPA) Program"	Charles Drew Univ of Med & Sci (NIH)	\$25,000
Ji Son	"Connecting Concepts and Activities: Principles of Integration in Mathematical Pedagogy"	UCLA (U.S. Dept of Educ)	\$28,553
Katharine Tellis	"Police Decision Making in Sexual Assault Cases: An Analysis of Crimes Reported to the Los Angeles Police Department"	Arizona State Univ (Dept of Justice)	\$73,532
Mark Tufenkjian	"Alternative Penetrometers to Measure the Near-Surface Strength of Soft Soils"	Office of Naval Research	\$300,000
Robert Vellanoweth	"Bridges to the Ph.D."	NIH	\$233,502
Lois Weinberg	"Ready to Succeed: Moving the Education Agenda Forward for Faster Youth"	Mental Health Advocacy Svcs, Inc.	\$6,897
Xin Wen	"Identification and Molecular Basis for Efficient Antifreeze Protein Enhancers"	NIH Recovery Act	\$63,336
Deborah Won	"Bridging CSULA with Biomedical Engineering Opportunities at USC"	USC (NSF)	\$5,950
Toshiko Yokota	"The Japanese Speech Contest"	The Japan Foundation	\$550
Beatrice Yorker	"UCEDD/Minority Institutions Partnership Grants"	Children's Hospital of L.A. (DHHS)	\$60,000
Marlene Zepeda	"Early Care and Education Workforce Partnership"	East L.A. College (LAUP)	\$23,612
Andrea Zetlin	"CSULA/Alhambra Special Education Alternative Certification-Intern Program"	Alhambra Unified SD (CCTC)	\$617,727

## New University Requirement: Training in the Responsible Conduct of Research for Students, Post-docs

In response to the National Science Foundation's (NSF) recent decision to require all students and post-docs who participate in NSF-funded projects to undergo training in the Responsible Conduct of Research (RCR), all federally-funded grant-supported students and post-docs at Cal State L.A. are now required to complete the online RCR training modules developed by the Collaborative Institutional Training Initiative (CITI), a nonprofit group that provides the service at no cost to educational and research institutions nationwide.

The CITI training modules can be accessed at

<https://www.citiprogram.org/enroll/courseregistration1b.asp?language=english&institution=100>.

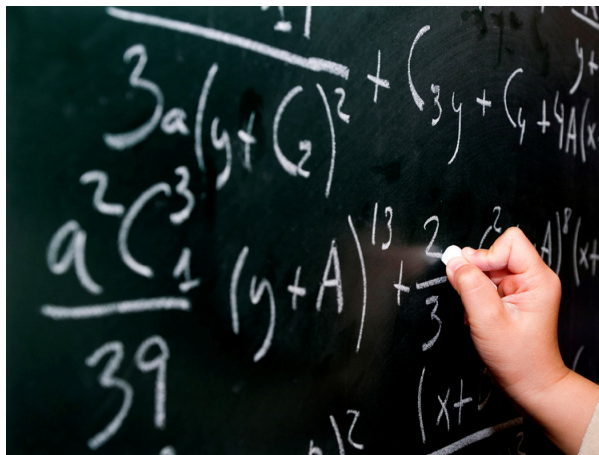
Following registration, participants will choose to complete an RCR course in Biomedical Sciences, Physical Sciences, Engineering, or Social and Behavioral Science, as appropriate. After successfully completing the course modules, the participant must print out a Certificate of Completion, which must be turned in to Lynne Duong in the Office of Research and Sponsored Programs (Golden Eagle Building, Room 314). For complete instructions on accessing the CITI training modules, see [www.calstatela.edu/academic/aa/orad/CITI.doc](http://www.calstatela.edu/academic/aa/orad/CITI.doc).

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### Panel to Discuss Math Preparation

One of the greatest challenges facing educators in California is improving student and teacher preparation in mathematics. As part of the Research Seminars at ORAD Café series, a panel of faculty experts will discuss how Cal State L.A. is working to improve math performance of students in schools, community colleges, and our own university, as well as our role in preparing skilled math teachers. The discussion will be moderated by James Henderson, Dean of the College of Natural and Social Sciences, and will include faculty members Margaret Jefferson (Biological Sciences), Silvia Heubach (Mathematics), Debasree Raychaudhuri (Mathematics), and Rama Menon (Curriculum and Instruction). The panel discussion will take place on Wednesday, May 26, from 3:30 – 5:00 pm in the University Club. Light refreshments will be available.

*Research Seminars at ORAD Café is Co-Sponsored by ORAD and the Office of Research and Sponsored Programs*



## **Institutional Review Board—Human Subjects News**

If a research project involves human subjects, approval must be obtained from the Cal State L.A. Institutional Review Board-Human Subjects (IRB) prior to beginning the project. This includes biomedical, behavioral, survey, and educational projects, and both funded and unfunded research projects by faculty, staff, and students. The purpose of the review is to assess risk to and protect the rights of human research subjects, in accordance with federal regulations. Please contact Ellen Stein at [estein@cslanet.calstatela.edu](mailto:estein@cslanet.calstatela.edu) or x3798 if you have any questions regarding IRB requirements.

### ***Next IRB Workshop to be Held on April 14***

On **Wednesday, April 14**, from **4:00-5:00 p.m.**, ORAD is offering the final quarterly workshop for this academic year, for students who are planning to conduct research with human subjects. The workshop, which is also open to interested faculty, including thesis advisers, will be held in the Library Conference Room (LibN B530). Limited space is still available, so contact Ellen Stein at [estein@cslanet.calstatela.edu](mailto:estein@cslanet.calstatela.edu) or x3798. The 2010-11 workshop dates will be announced in the fall.

### ***2009-10 IRB Meeting Calendar***

<b>Spring</b>	<b>Summer</b>
April 23	July 2
May 14	July 16
	August 13

Meetings take place from 10:00 a.m. to 12:30 p.m. Contact Ellen Stein at [estein@cslanet.calstatela.edu](mailto:estein@cslanet.calstatela.edu) or x3798 for meeting location.

**Note: Download the CSULA IRB Guidebook from the ORAD website,**  
[www.calstatela.edu/academic/aa/orad](http://www.calstatela.edu/academic/aa/orad)

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## **Institutional Animal Care and Use Committee News**

The use of animals in instructional activities or research (whether funded or unfunded) requires prior approval from the Cal State L.A. Institutional Animal Care and Use Committee (IACUC). The IACUC maintains oversight of University animal facilities and animal care procedures, and carries out such activities as required by law to assure the humane treatment of animals, in compliance with federal regulations.

**Note: The latest versions of Animal Protocol forms A and B may be found on the ORAD website, [www.calstatela.edu/academic/aa/orad](http://www.calstatela.edu/academic/aa/orad)**

### ***2009-10 IACUC Meeting Calendar***

<b>Spring</b>	<b>Summer</b>
May 6	July 1
June 3	August 5
	September 2

Meetings take place from 2:30 to 4:00 p.m. Contact Ellen Stein at [estein@cslanet.calstatela.edu](mailto:estein@cslanet.calstatela.edu) or x3798 for meeting location.

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## Funding Agency News

### ***Cal State L.A. Eligible Again for NIH Academic Research Enhancement Award***

Cal State L.A. is now an eligible institution for the National Institutes of Health Academic Research Enhancement Award (AREA) funding (R15 mechanism). However, applicants may not be a project director (PD) or principal investigator (PI) on any active NIH grant at the time of the award of an AREA grant, although the applicant may be one of the project personnel on an active NIH grant held by another PD/PI. In addition, faculty may not submit another research grant proposal for essentially the same project proposed in a pending AREA application.

The AREA grant program is designed to stimulate research in educational institutions that provide baccalaureate or advanced degrees for a significant number of the nation's research scientists, but that have not been major recipients of NIH support. AREA grants are intended to support small-scale health-related research projects. Applicants may request up to \$300,000 in direct costs for up to three years. The next deadline for submission is June 25, 2010. Other standard deadline dates are October 25 and February 25. For further information, visit <http://grants.nih.gov/grants/funding/area.htm>.

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This newsletter is published quarterly and is transmitted via email to all faculty, senior administrators, and ORSP and ORAD staff. For further information on newsletter content, email Ellen Stein, Regulatory Compliance and Research Development Analyst, at [estein@cslanet.calstatela.edu](mailto:estein@cslanet.calstatela.edu) or Philip LaPolt, Director of Research and Development, at [plapol@exchange.calstatela.edu](mailto:plapol@exchange.calstatela.edu). We welcome your comments and suggestions on how to improve this publication.