## CSU-LSAMP Report on Participation in the 2013 Emerging Researchers National (ERN) Conference in STEM February 28 – March 2, 2013 = WASHINGTON, DC Supported by HRD-0802628 Amendment 8 Funding

**Introduction:** CSU-LSAMP's February 8, 2013 proposal for use of funding provided in Amendment 8 to HRD-0802628 specified that a portion of these funds would be devoted to sending additional students to the ERN conference. Although CSU-LSAMP has sent several students to ERN in past years, CSU-LSAMP participation has essentially been limited to those who received ERN travel awards because of the high cost of travel from California to Washington, D.C. CSU-LSAMP recognizes that the ERN conference has emerged as an important mechanism for creating a national community of HRD program participants, and CSU-LSAMP believes that its students will both greatly benefit from and contribute to the diversity of ideas and perspectives and intellectual vibrancy that characterizes this community. Therefore, CSU-LSAMP proposed to use a portion of the funding provided in amendment 8 to fund registration and travel costs for 25-30 students who might not otherwise have been able to attend ERN, plus costs for two (2) Coordinators of campus programs to accompany the students and also organize some activities at the conference that would bring together students from different CSU-LSAMP campuses.

#### Section 1: 2013 Emerging Researchers National Conference

The 2013 Emerging Researchers National Conference (ERN) was held February 28<sup>th</sup> – March 1<sup>st</sup> in Washington D.C. The objectives of the conference are to help undergraduate and graduate students to enhance their science communication skills and to better understand how to prepare for science careers in a global workforce. The general format for the 2-1/2 day conference included student oral and poster presentation, as well as other conference activities that included workshops focused on:

- strategies for applying for and succeeding in graduate programs and funding for graduate school;
- 2. career preparation workshops focused on employment searches and retention; and
- understanding STEM careers in a global context and identifying international research and education opportunities for undergraduate and graduate students and faculty.

Representatives from academic, government, business and the non-profit sector were invited to provide information about graduate school admissions, fellowships, summer research opportunities, professional development activities and employment opportunities. Detailed materials for the conference including all of the plenary sessions are available at: <a href="http://www.emerging-researchers.org/">http://www.emerging-researchers.org/</a>.

#### **Section 2: Participants**

A total of 45 CSU-LSAMP participants attended the ERN conference, including 41 undergraduates and 4 Bridge to the Doctorate students. Registration and travel costs for 24 of the undergraduate students were funded by Amendment 8 funds. Costs for the remaining students were funded by a combination of ERN Travel Awards and other CSU-LSAMP funds. One additional undergraduate had an abstract accepted but was not in attendance due to a

family emergency. Group photos are included in an attachment to this report. Table 1 lists the names of the 28 CSU-LSAMP students who had abstracts accepted (including one student who was unable to attend), along with the titles of their abstracts. Dr. Margaret Jefferson (CSU-Los Angeles) and Dr. Katrina Yamazaki (CSU-Los Angeles) attended the CSU-LSAMP student presentations, watched them answer questions from 3-4 judges.

Notably, from our 28 CSU-LSAMP students who had abstracts accepted to this conference, **seven (7) received first place awards** (6 undergraduates and one graduate student). We have highlighted these 7 students representing several CSU-LSAMP institutions. Each of these students received a \$300 prize! Photos of these students are attached.

In **Table 2**, we have listed the students (and their campus) who did not submit an abstract or present a talk at ERN, but attended the events and presentations, and were supportive of their fellow CSU-LSAMP students. It is hoped that these students were fully motivated to submit abstracts at future conferences.

# Table 1. Oral and Poster Presenters at 2013 ERN National Conference, Washington, DC, February 28 – March 2, 2013

FIRST + LAST NAME	CSU CAMPUS	DISCIPLINE	ORAL or POSTER	UNDERGRAD or GRADUATE	TITLE
Tarek Karam	Los Angeles	Physiology & Health	ORAL	undergraduate	Effects of Dietary Cholesterol & Jojoba Seed Oil on High Density Lipoprotein Subclasses in New Zealand White Rabbits
Mastaneh Nikravesh	San Diego	Cell & Molecular Biology	ORAL	undergraduate	Identification and Characterization of Genetic Suppressors of PINK1 Mitochondrial Phenotypes in <i>Drosophila melanogaster</i>
Danielle Perryman	San Jose	Ecology	ORAL	undergraduate	Assessment of Genetic Endemism of Burrowing Crustaceans on the US Pacific Coast
Matthew Acosta	Long Beach	Physics - Nanoscience	POSTER	undergraduate	Modeling Nanoplasmon Interactions with Vanadium Dioxide (V02) during Phase Transition using the Finite- Difference Time-Domain (FDTD) Method
Edgar Campbell	Stanislaus	Cancer Research	POSTER	undergraduate	Sudemycin Alters Alternative Splicing in Primary Murine Hematopoietic Cells Expressing Mutant U2AF1
Yvan Delgado de la Flor	Humboldt	Ecology	POSTER	undergraduate	Do Eastern Hemlock Forests Provide Habitat to a Greater Variety of Spiders Compared to Non-Hemlock Forests

FIRST + LAST NAME	CSU CAMPUS	DISCIPLINE	ORAL or POSTER	UNDERGRAD or GRADUATE	TITLE
Abel Duarte	Monterey Bay	Biochemistry	POSTER	undergraduate	Mutational Analysis & Transport Activity of ABC Transporter ABCB19 in Arabidopsis thaliana
Jonathan Echeverri	Los Angeles	Cell & Molecular Biology	POSTER	undergraduate	Cardioprotective properties of epicatechin in the setting of ischemia and reperfusion
Ivan Espinosa	Fullerton	Mathematics & Statistics	POSTER	undergraduate	New Observations and Data on M&M Sequences
Zolia Estrada	Stanislaus	Chemistry	POSTER	undergraduate	Analysis of Conformational Influences within (2R, 3R)- Butanediol
Eileen Gonzalez	Los Angeles	Cell & Molecular Biology	POSTER	undergraduate	Mitochondrial Dynamics in the Type 2 Diabetic Heart
Adrianna Hernandez	Los Angeles	Mathematics & Statistics	POSTER	undergraduate	Comparison of biochemical properties of hermit crabs
Daniel Lee	Los Angeles	Electrical Engineering	POSTER	undergraduate	Battlefield Automated DNA Analysis and Sampling System
Darryl Lopez	Stanislaus	Microbiology/ Immunology/ Virology	POSTER	undergraduate	Observing Diversity of the Microbial Population in Active Sludge
Humberto Melgoza	Bakersfield	Ecology	POSTER	undergraduate	Detection of the amphibian pathogen Batrachochytrium dendrobatidis in different ponds of the San Joaquin Valley and the foothills of the Sierra Nevada
Nanse Mendoza	Bakersfield	Ecology	POSTER	undergraduate	Identification of microcrustaceans as natural predators of the amphibian pathogen Batrachochytrium dendrobatidis
Carl Montgomery Jr.* (unable to attend)	Long Beach	Civil/ Mechanical/ Manufacturing Engineering	POSTER	undergraduate	Fabrication and Testing of Green Composite Materials for Concrete Reinforcement
Andres Nevarez	Fresno	Cancer Research	POSTER	undergraduate	Obtaining natural substrates of Caspases via N-terminomics
Lila Peltekian	Los Angeles	Cell & Molecular Biology	POSTER	undergraduate	Reduction of fibrosis in type 2 diabetes by (-)- epicatechin
Emily Ramos	Fullerton	Mathematics & Statistics	POSTER	undergraduate	F-test in Microarray Experiments
Anahis Rincon	Los Angeles	Chemistry	POSTER	undergraduate	Microfluidic Centrifugal Disc Extractions via White Silica Pellet

FIRST + LAST NAME	CSU CAMPUS	DISCIPLINE	ORAL or POSTER	UNDERGRAD or GRADUATE	TITLE
Mariah Paula Rincon	Los Angeles	Microbiology/ Immunology/ Virology	POSTER	undergraduate	Development of Photocrosslinkable Class I pMHC Monomers for Detecting Antigen-Specific T Cells
Reema Shakir	Stanislaus	Physiology & Health	POSTER	undergraduate	The Effects of Second- and Third-hand Cigarette Smoke Exposure on the Levels of Plasma Glucose and Insulin using Swiss Webster Mice
Jazma Tapia	Los Angeles	Microbiology/ Immunology/ Virology	POSTER	undergraduate	The role of Antimicrobial Lipids: Potential Novel Innate Immune Factors Preventing Intrauterine Infections
Georgina Aguilar- Portillo	Northridge	Genetics	POSTER	graduate	Molecular Characterization of Nematode Genes Involved in Insect Pheromone Sensing
Monica Chinea Diliz	Los Angeles	Ecology	POSTER	graduate	The Effects of Larval Dispersal Behavior on Population Connectivity in the Caribbean
Pamela Russell	Los Angeles	Cell & Molecular Biology	POSTER	graduate	C2C12 Cells MyoD Knockdown to identify MyoD function at regulatory Motif Upstream of Id2
Yola Wong K	Los Angeles	Environmental Engineering	POSTER	graduate	Transport of Fertilizer- Derived Nitrate through Unsaturated Low Conductivity Soil

Table 2. Non-presenter Attendees at 2013 ERN National Conference, Washington, DC,February 28 – March 2, 2013

FIRST + LAST NAME	CSU CAMPUS	UNDERGRADUATE or GRADUATE	
Robert Bassett	Bakersfield	Undergraduate	
Derrick Chung Sang	Bakersfield	Undergraduate	
Nicholas A. Danes	Bakersfield	Undergraduate	
Khushwinder Gill	Bakersfield	Undergraduate	
Martin Jimenez	Bakersfield	Undergraduate	
Esteban R. Macias	Bakersfield	Undergraduate	
Michael Medrano	Bakersfield	Undergraduate	
Jose Orozco	Bakersfield	Undergraduate	
Nehemias Ulloa	Bakersfield	Undergraduate	
Monique L. Villarreal	Bakersfield	Undergraduate	
Javier A. Garcia	Fresno	Undergraduate	
Jose DeJesus Vera	Fresno	Undergraduate	
Cesar Cervantes	Los Angeles	Undergraduate	

Ernesto E. Covarrubias-Flores	Los Angeles	Undergraduate
Maral A. Karalekian	Los Angeles	Undergraduate
Ruby Karikian	Los Angeles	Undergraduate
Talar A. Kesoyan	Los Angeles	Undergraduate
Jorge L. Nieto	Los Angeles	Undergraduate

#### Section 3: CSU – LSAMP Participant Activities

#### 1. 2013 ERN Conference Planner Worksheet

Prior to the beginning of the conference, all participants were required to complete the 2013 ERN Conference Planner Worksheet. This worksheet was designed to maximize the information the students gained during the conference.

The first section of the worksheet had the students list 5 goals they hoped to achieve while in Washington D.C. For the most part, all the students' goals were to 1.) speak with recruiters from PhD programs to learn more about what their program offers; 2-3) Attend oral and poster presentations related to their field of research in order to learn research being performed at other institutions; 4) Network (i.e. hand out business cards and resumes) to recruiters from the industry sector; 5) Attend the career development workshops, such as "NSF graduate Fellowship" and "Writing an award winning abstract and poster," in order to develop these necessary skills.

The second section of the conference planner worksheet had the students list 6 different seminars or oral presentation and 3 different career development workshops they wanted to attend. All students completed this section and chose seminars related to their field of research, as well as workshops designed to learn more information on graduate programs, and how to fund their graduate schooling.

The third section had the students list 10 different posters that the students wanted to visit during the poster sessions. This was designed with the idea that the students will recognize various institutions and labs they could potential join for a summer research program or for graduate school. We wanted the students to talk to the presenters from these institutions in order to gather more information about life outside of California!

### 2. CSU – LSAMP Networking Dinner on Friday, March 1<sup>st</sup>

Dr. Jefferson and Dr. Yamazaki organized a dinner on Friday, March 1<sup>st</sup> for all the CSU – LSAMP ERN attendees at Carmine's Restaurant in Washington D.C. This event was not mandatory. However, 40 of the CSU-LSAMP students participated.

Recruiters from various universities were asked to join students for dinner so the students could further network and speak to them, but in a more relaxed environment. By giving them the opportunity to interact in a more relaxed environment with their peers and graduate program recruiters, we hoped to stimulate excitement and answer questions regarding the graduate application process and graduate life as a whole. Table 3 lists recruiters who participated in this activity. During the dinner, recruiters had the opportunity to make presentations on the students on their graduate programs.

Name:	Campus:		
Victoria Freedman	Albert Einstein College of Medicine, Graduate Division of Biomedical Sciences		
Chukwudi Chidume	Auburn University		
Joyce Hopson-King	Penn State		
Veronica Henson-Phillips	University of California San Diego		
Barbara Nesmith	Columbia		
Don Brunson	Vanderbilt		
Stephanie Adamson	University of Arizona		
Chinonye Nnakwe	University of Chicago		

#### Table 3. Graduate Program Recruiters attending the CSU-LSAMP Event

#### 3. ERN Assessment, Evaluation and Debrief Worksheet

All participants were required to complete the ERN Assessment, Evaluation and Debrief worksheet, in which they stated if they met all their goals identified at the beginning of the conference, what seminars and workshops they found the most interesting and beneficial, the most beneficial event of the entire conference, and how participating in the ERN conference helped prepare them for their short and long term career goals. All the students completed 4 out of their 5 goals. Two major reasons that students gave for not completing their goals included: 1) not enough time to visit all the posters they wanted to attend and 2) presenter did not show up. Students thoroughly enjoyed the network dinner. They were able to hand out business cards to the recruiters who joined us, as well as speak to fellow CSU-LSAMP students about their plans and experiences with the application process. Overall, it appears the ERN conference reiterated the notion that graduate school will take a lot of determination and motivation from the students in order to be admitted and then complete the degree.

PHOTOS OF CSU-LSAMP PARTICIPANTS AT THE 2013 ERN CONFERENCE February 28, 2013 – March 2, 2013



Fig. 1. CSU-LSAMP Group Photo at the Conference

Fig. 2. CSU-LSAMP Participants - Dinner with Recruiters



#### Fig. 3. CSU-LSAMP's First Place Winners at the 2013 ERN Conference

[Note: those photographed during the awards presentation are shown with Dr. Shirley Malcolm, AAAS Director of Education and Human Resources (left); and Dr. Claudia Rankins, NSF CREST and HBCU-UP Program Officer (right). Unless, otherwise note, students are undergraduates.]

A. Tarek Karam, CSU, Los Angeles



C. Yvan Delgado de la Flor, Humboldt

B. Edgar Campbell, CSU Stanislaus



D. Abel Duarte, CSU Monterey Bay





E. Eileen Gonzalez, CSU Los Angeles



F. Emily Ramos, CSUFullerton



G. Georgina Aguilar-Portillo, Graduate Student, Bridge to the Doctorate at CSUNorthridge

