

## Introduction

The Howard Hughes Medical Institute (HHMI), the Helmsley Charitable Fund, and the Science Literacy Program invite you to attend **SMI-SALSA<sup>1</sup> Summer Institute** on Scientific Teaching **June 26-30, 2017** at University of California, Riverside (UCR). The Summer Institute will expand and sharpen participants teaching skills through workshops facilitated by national science education experts.

Participants will develop original, innovative classroom materials ready for immediate implementation and will be named 2016-2017 National Academies Education Fellows at the end of the institute. Dr. Susan Wessler, Distinguished Professor of Genetics, Dr. Jim Burnette, Academic Coordinator-the *Dynamic Genome*, Dr. Bradley Hyman, Professor Emeritus of Biology, and Dr. Rich Cardullo, Interim Vice Provost of Undergraduate Education, are collaborating to offer a unique professional development opportunity for STEM teachers seeking to combine practical laboratory science with science and mathematics lesson planning.

This intensive workshop will expose credentialed secondary STEM teachers and pre-service STEM teachers to useful laboratory measurement techniques through wet bench experiences already adopted by previous summer institute participants in their classrooms. These analytical techniques will then be converted into mathematics and science classroom lessons using the latest *Scientific Teaching* pedagogies. Participants who complete the training will be provided with the materials necessary to use in their classrooms.

<sup>1</sup>Joint funded by the UCR CalTEACH Science Mathematics Initiative (SMI) and a Howard Hughes Medical Institute award "Sustaining Academic Leadership for STEM Achievement (SALSA)".

## Anticipated Outcomes

Participants can expect to:

- become skilled in simple physical measures such as micro volumes and masses used in classrooms and modern research laboratories
- appreciate the importance of reproducibility and calculate inherent experimental error when taking measurements
- develop a discovery-based lesson plan using *Scientific Teaching* principles that include:
  1. Active learning
  2. Assessment
  3. Diversity
  4. Backwards design



### TESTIMONIAL

*"Attending the Summer Institute (SI) was a transformative experience for me professionally. I am a new instructor and a postdoc, and the intensive training, motivation, and "re-education" on [higher] education provided at the SI gave me with new skills, confidence, and a boost to my CV while applying for jobs. The basic philosophies promoted and explored in the SI are nothing short of revolutionary. The workshops provided me with practical skills for transitioning these ideas into the classroom as well. Participating in this institute has made me feel like I am tuned into the most current and nationally accredited best practices for teaching in the [college] classroom, and has given me tools to excel as an instructor. It is an extremely worthwhile and inspirational experience that has literally inspired and transformed my teaching and my career."*

*-Ann Petersen, University of Oregon*

## SMI-SALSA Summer Institute 2017

### Dates:

June 26–30, 2017 (Monday-Friday)

### Time:

9:00 a.m. to 3:30 p.m.

### Location:

UC Riverside

University Laboratory

### Fee:

FREE

### Eligible Applicants:

Credentialed science & mathematics middle school and high school teachers

### Participation Incentive Options:

1. \$500 upon completion of SMI-SALSA Summer Institute
2. Or, 2-unit class credit through UCR Extension.

*Application & deadline:  
inside this tri-fold brochure*

**Please answer the following questions to assist the selection process.**

1) Is your Bachelor's Degree/post-baccalaureate degree in science, math, or engineering?  
\_\_YES \_\_NO

If so, please indicate the subject area (major) completed \_\_\_\_\_

2) School site information: School site: School name \_\_\_\_\_  
School district \_\_\_\_\_

3) What courses do you currently teach? \_\_\_\_\_

4) Are you planning to serve as an SMI Mentor Teacher for 2017-18 academic year?  
\_\_YES \_\_NO \_\_\_Don't know

5) Indicate which type of teaching credential do you hold:  
\_\_\_ Preliminary Teaching Credential  
\_\_\_ Professional Clear Teaching Credential

6) Briefly describe your primary motivation to participate in the SMI Summer Institute 2017.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

7) Contact Information:

Your name \_\_\_\_\_

Your e-mail \_\_\_\_\_

**Application deadline:**  
**April 28, 2017**  
**by 12:00 pm. (noon)**

**Submit application to:**

SMI RESOURCE CENTER

*Mail:* 1315 Pierce Hall

Riverside, CA 92521

*Email:* smi@ucr.edu

*Fax:* 951-827-4971

**Questions?**

*Please contact:*

Dr. Brad Hyman  
UCR Biology Faculty  
bhyman@ucr.edu