The American Society for Biochemistry and Molecular Biology (ASBMB) Hands-on Opportunities to Promote Engagement in Sciences (HOPES) program is kicking off its second annual workshop, Fostering Partnerships between Colleges, Universities and K-12 Schools, in San Diego as part of the 2012 ASBMB Annual Meeting. The workshop targets junior high and high school teachers and college/university faculty and researchers to promote collaborative partnerships that bring creative inquiry based science curricula into K-12 classrooms.

This workshop is especially designed for teachers, faculty and researchers from the San Diego and southern California region, but is open to anyone interested in science education. Registration is free and lunch will be provided. Speakers will showcase successful existing partnerships between K-12 schools and colleges/universities, as well as generate ideas for partnerships in the San Diego and southern California region. Attendees will also be able to participate in a hands-on science demonstration.

Workshop attendees will also receive information regarding the 2012 ASBMB HOPES mini-grant. Applications for these grants will be available in May, 2012.

The HOPES program committee members are:

Regina Stevens-Truss, Chair (Kalamazoo College)  
Jeremy Thorner (University of California, Berkeley)  
Bob Dutnall (University of San Diego)  
Peter Kennelly (Virginia Tech University)  
Ishara Mills-Henry (Massachusetts Institute of Technology)  
Tim Herman (Milwaukee School of Engineering)  
Weiyi Zhao (ASBMB)

Register for the workshop at: http://www.asbmb.org/WebForms.aspx?ekfrm=14497

The workshop will be held at the San Diego Marriot Marquis Hotel, Santa Rosa Room, 1st Floor of the South Tower (From lobby Starbucks take escalator down 1 level), 333 West Harbor Drive · San Diego, California 92101 USA.
Workshop Agenda

9:00 AM – 9:15 AM

Welcome and Opening Remarks – Regina Stevens-Truss

9:15 AM – 9:30 AM

UCSF iGEM: Engaging Students through Synthetic Biology – Veronica Zepeda

9:30 AM – 9:40 AM

Rethinking Outreach and Students Modeling A Research Topic (SMART) – Tim Herman and Shannondoah Colton

Tim and Shannon will introduce the use of 3D printing technology to create physical models of proteins – and how this technology is used in an innovative science outreach program known as SMART Teams, in which high school students work closely with local research labs to create models of the proteins that are being investigated.

9:40 AM – 9:55 AM

Examples of K-12 Partnerships in San Diego County – Marisela Chevez (Scripps) and Ange Mason (UCSD)

Join panel members Marisela Chevez of The Scripps Research Institute (TSRI) and Ange Mason of the San Diego Supercomputer Center (SDSC) at the University of California, San Diego as they explore and share community and organizational partnerships that promote teacher and student outreach throughout our county. Learn what it takes to create successful programs through partnerships with community neighbors.

9:55 AM – 10:00 AM

Examples of K-12 Partnerships in San Diego County – Danna Mapston and Ellen Potter (Salk Institute)

10:00 AM – 10:10 AM

Networking Break

10:10 AM – 11:45 PM

Modeling the Molecular World – Tim Herman and Shannondoah Colton

In this hands-on workshop, you will learn how physical models of proteins can be used to engage your students in an exploration of the molecular world. You will also be introduced to the use of a free computer visualization tool (Jmol) to design these physical models – and a San
Diego area SMART Team program in which you and your students can work with local researchers to create physical models of the proteins being investigated in their labs.

11:45 PM – 12:00 PM

How mapping the human genome helped crack a family’s medical mystery – Joe Beery
Read related news article here: http://n.pr/jg4CmY

12:00 PM – 1:00 PM

Networking Lunch

About the Presenters

Marisela Chevez

Marisela Chevez is the educational outreach coordinator for the K-12 programs at The Scripps Research Institute. Her responsibilities include planning and monitoring of student activities and professional development experiences, recruitment, partnership building, community outreach and engagement, and day-to-day program management. Ms. Chevez is a native of Los Angeles, CA and received a BS in History at the University of California at Berkeley.

Joe Beery

Joe Beery is the Senior VP and CIO at Life Technologies based in San Diego. He is the father of Alexis and Noah Beery, twins diagnosed with Dopamine-Responsive Dystonia (DRD).

Shannondoah Colton, Ph.D.

Dr. Colton is a program director in the CBM – where she coordinates (i) the work of ~60 high school SMART Teams in Wisconsin and across the US, and (ii) the Science Olympiad Protein Modeling event, in which ~3,000 Teams of high school students are currently using mini-toobers to create a physical model of protein that was shown by whole genome sequencing to be the cause of a young boy’s disease.

Tim Herman, Ph.D.

Dr. Herman directs the MSOE Center for BioMolecular Modeling (CBM) – where 3D printing technology is used to create physical models of proteins.

Angela Mason

Ange Mason is the Education Program Manager at the San Diego Supercomputer Center on the campus of the University of California, San Diego. Her responsibilities include teacher professional development through the successful TeacherTECH program, student outreach through SDSC’s StudentTECH program and community outreach and engagement. Both programs reach over 1500 participants a year from
across San Diego County, Riverside County, Orange County and Baja, Mexico. Ms. Mason received her B.S. in Psychology from the University of California, San Diego.

**Regina Stevens-Truss, Ph.D.**

Dr. Stevens-Truss is an Associate Professor and the Chair of the Chemistry Department at Kalamazoo College in Michigan. A medicinal biochemist, Dr. Stevens-Truss is also a member of the ASBMB Minority Affairs and Educational Policies Committees, and is the Chair of the HOPES Committee. In addition to teaching, she volunteers her time participating in science outreach programs in her local community.

**Veronica Zepeda, Ph.D.**

Veronica Zepeda was born in Houston, TX and attended a performing and visual arts high school where she met an inspirational science teacher who encouraged her to pursue a career in biology. After participating in several high school summer programs she decided to attend MIT, ultimately obtaining a B.S. in Biology. While pursuing undergraduate research in the King Lab at MIT, she became involved in several science education and outreach programs and continued this work while a graduate student at UC Berkeley. She now serves as the Education Coordinator for the UCSF Center for Systems and Synthetic Biology with her main efforts focused on outreach to high school and community college students in the Bay Area.