Nanoscience Workshop for High School Teachers and Students
AGENDA

Sponsored by the NanoSense project at SRI International
and San Jose State University

Saturday, February 11, 2006

8:45 am — Arrival and Continental Breakfast

Duncan Hall 505

Arrive, pick up materials and make a name badge. Muffins and juice will be available.

9:00 am — Introduction to Nanoscience

Geri Horsma and Carolina Sylvestri
Duncan Hall 505

How small is a nanometer? What are some unusual properties of the nanoscale? How might nanotechnology impact our lives? These and other questions will be addressed through presentation and hands-on activities.

10:00 am — Introduction to Clear Sunscreen

Alyssa Wise
Duncan Hall 505

How do "nano-sunscreens" differ from traditional sunscreens? What is the best kind of sunscreen to use and why? Alyssa will give introduce the clear sunscreen unit and issues related to such questions.

10:30 am — Break

Divide into two groups and make your way to the lab rooms.

10:45 am

Hands-On Activity: Sunscreen Labels	Hands-On Activity: Ultra-Violet Beads
Carolina Sylvestri	*Miriam Motoyama*
Duncan Hall 507	*Duncan Hall 506*

11:30 pm — Lunch and Guest Speaker

Brent MacQueen, Nanoscientist from SRI International
Duncan Hall 505

We'll have sandwiches, chips and drinks. From 12-12:30, Brent will present and answer questions on the topic of "Nanotechnology: What it is, is not, and where it's going to have an impact."

(over)

12:30 pm

The Science Behind the Sunscreen

Doris Mourad and Carolina Sylvestri
Duncan Hall 505

A presentation and discussion of the core ideas behind how sunscreens block UV light and why they appear the way that they do.

1:30 pm

Scattering of Light by Particles: ChemSense Activity

Tina Stanford and Patti Schank
Duncan Hall 246

Students use the ChemSense Animator to create an animation for an advertisement that shows consumers how nano sunscreen particles don't scatter visible light and thus are transparent.

Scattering of Light by Particles: Sunscreen Animations

Alyssa Wise
Duncan Hall 246

Students view and discuss animated models of how visible light interacts with "large" and nano-sized zinc oxide particles.

2:00 pm

(ChemSense Activity, continued)

Consumer Choice Pamphlet

Geri Horsma, Tina Stanford, and Alyssa Wise
Duncan Hall 246

Students create a pamphlet to inform consumers about nanoparticulate sunscreens, how they work, and their benefits and drawbacks.

3:00 pm

Cookies and Workshop Survey

Duncan Hall 505

Enjoy cookies and drinks while completing a short survey about the workshop.

3:15 pm

Small Group Reflections

Duncan Hall 505

In small groups, reflect on the day and discuss ideas that were particularly interesting or perhaps unclear.

3:45 pm

Get Certificates and Adjourn

Teachers and students pick up their certificates of participation.

Teachers remember to pick up your classroom kits!