CCMR

Esperanza Program Reaches Latino Students

Professor Héctor D. Abruña, a member of the Cornell Center for Materials Research (CCMR) and the E. M. Chamot Professor of Chemistry and Chemical Biology, explores the nature of chemical reactions using cornstarch and water with children in the *Esperanza* program in Ithaca, NY. *Esperanza* focuses on Latino students in grades kindergarten through sixth grade; lessons are conducted in Spanish. *Esperanza* is an after-school program held at Beverly J. Martin Elementary school for Latino elementary school students in the Ithaca City School District. CCMR has worked with Monica Arambulo, coordinator of *Esperanza*, to provide lessons in Spanish. Faculty and graduate students have presented such hands-on lessons as Wild Solutions, Marvelous Magnets, and States of Matter.

Nev Singhota

Héctor Abruña with *Esperanza* participant

CfE

Three Selected As Heinz Scholars

Three Cornell University graduate students are among 17 at seven American universities to receive grants as Teresa Heinz Scholars for Environmental Research. Proposals for the grants were submitted through the Cornell Center for the Environment (CfE) and were selected by a distinguished review committee for their potential to address the world's most pressing environmental challenges. Heidi E. Gjertsen, Applied Economics and Management, was awarded a $10,000 grant for her project, "Identifying Factors for Success in Marine Protected Areas." Daniel J. Sherman, Government, was awarded $10,000 for his study, "The Low-Level Radioactive Waste Policy Act: Public Responses and Implementation Consequences." Bronwen Eastman, Natural Resources, was awarded $5,000 for his project, "An Evaluation of Three Improved-Efficiency Cookstove-Integrated Conservation Development Projects."

CNF

CNF Technical Discussions Webcast on Mondays

The staff of the Cornell Nanofabrication Facility (CNF) has, for many years, met with new CNF researchers to share a simple lunch and discuss the technical aspects of their proposed work. The meetings have recently expanded to include short reports by members of the CNF community on current topics of interest. The sessions are held on most Mondays during the lunch hour in the CNF conference room. New projects are discussed first, and the technical session follows immediately. The sessions are now webcast live at http://www.cnf.cornell.edu/live.html.

Marsha Johnson/CNF

CNS

Workshop for Physics Teachers Held

A new program of the Center for Nanoscale Systems (CNS) is helping New York State's high school physics teachers make science come alive for their students. CNS hosted a spring workshop for teachers and Cornell scientists to exchange ideas, discuss new directions in physics education, and work on incorporating research in nanotechnology into high school classes. Physics teachers in New York State are facing particular challenges this year as the state education department implements a revised core curriculum in physics. CNS is working to assist teachers in meeting the requirements by forming an Institute for Physics Teachers. Proposed programs for the new institute include summer courses for teachers, an equipment lending library for high schools, and a network of Cornell scientists and high school physics teachers that would foster collaboration.

Charles Harrington/CU

Graduate student Ethan Minot demonstrates use of an atomic force microscope to high school physics teachers.

CONTOUR/Astronomy

CONTOUR Spacecraft Launched July 3

NASA's Comet Nucleus Tour (CONTOUR) spacecraft, designed to provide the closest look yet at the "heart" of a comet, successfully launched on July 3 from Cape Canaveral Air Force Station, Florida. The mission's principal investigator, Joseph Veverka, Cornell professor of astronomy and department chair, and members of his international science team, will analyze the data the spacecraft sends back to Earth for several years to come. Beginning with an encounter with comet Encke in November 2003, the spacecraft will obtain the closest images yet of a comet's nucleus, as well as analyze the surrounding gas and dust. The mission's next stop will be comet Schwassmann-Wachmann 3 in June 2006.

Robert Baker/CU

CTC

CAVE Virtual Reality Environment Enhances Collaborations

The Cornell Theory Center (CTC) is home to the first multi-wall Windows/Intel CAVE, a three-dimensional, stereo immersive virtual reality environment for viewing scientific, engineering, architectural, and art applications—a great benefit for researchers in exploring and sharing their data with peers. CTC's CAVE is integrated into the Advanced Interactive Discovery Environment (AIDE) for Engineering Education, a joint project with Cornell, Syracuse University, and NASA. CTC Associate Director Anthony R. Ingraffea says the AIDE project springs from NASA's desire to "go back and change the culture of engineering education so that graduating engineers think of collaborative distance design as a natural way of doing work."

Chris Pelkie

CTC systems analyst Ken Ridley, wearing a stereo headset, controls an aircraft model with a virtual wand.

LASSP

Physics Students to Conduct Research at EU labs

Three Physics graduate students are among six U.S. students who were selected to spend the summer doing research at leading European Union (EU) laboratories. The students, Joseph Choi, Luke Donev, and Daniel Graham, are participating in an inaugural test research-training program connecting U.S. research centers with labs in the EU. The program was developed by Cornell's Laboratory of Atomic and Solid State Physics (LASSP) and spearheaded by Albert Sievers, Cornell professor of experimental condensed matter physics. The European labs are all part of LOCNET, one of more than 100 physics-based European Commission Research Training Networks. LOCNET labs study, both theoretically and experimentally, localization produced by nonlinearity and spatial discreteness in condensed matter systems.

Charles Harrington/CU

Joseph Choi, Luke Donev, and Daniel Graham

NBTC

NBTC REU Kicks-off in Style

Fifteen undergraduates found themselves "togged up" in bunny suits for two days as part of the Nanobiotechnology Center's (NBTC) 2002 Research Experience for Undergraduates (REU) program kick-off event. The students, who are spending the summer at one of three NBTC institutions (Cornell, Wadsworth Center of the New York State Department of Health, and Oregon Health Sciences University) work one-on-one with scientists and engineers to learn the basic tools of nanofabrication. This immersion experience gives students the opportunity to learn valuable techniques that they will apply to nanobiotechnology projects for the 10-week summer program. During the REU, students work with NBTC faculty (engineers, chemists, materials scientists, and biologists) who engage in research that pushes the frontiers of fabrication in pursuit of tools needed to address biological problems.

NBTC

NBTC REU student with a finished wafer

For more information:

contact individual faculty members using the Cornell Electronic Directory at http://cuinfo.cornell.edu/ or (607) 255-2000; or find directory information for specific centers at http://www.osp.cornell.edu/VPR/CenterDir/CenterDir.html