



OFFICE OF COMMUNICATIONS

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### **SLAC National Accelerator Laboratory to Receive Additional \$21.8M in Recovery Act Funding for New Research Instruments**

Menlo Park, Calif.—The Department of Energy's SLAC National Accelerator Laboratory will receive \$21.8 million in new funding from the American Recovery and Reinvestment Act. The funding will catalyze instrumentation construction and improvements at the laboratory's two light source research facilities, the Linac Coherent Light Source (LCLS) and the Stanford Synchrotron Radiation Lightsource (SSRL).

The new funds secured by SLAC are part of the more than \$327 million in Recovery Act funding announced by Energy Secretary Steven Chu this week, \$220 million of which will go to the Department of Energy's national laboratories to support scientific research, instrumentation and laboratory infrastructure projects across the nation.

"These new initiatives will help to create new jobs while allowing the U.S. to maintain its scientific leadership and economic competitiveness," said Secretary Steven Chu. "The projects provide vital funding and new tools for research aimed at strengthening America's energy security and tackling some of science's toughest challenges."

With this final round of project funding, the Obama Administration has now approved the full \$1.6 billion in Recovery Act funds allotted by Congress to the DOE Office of Science. In total, SLAC has been awarded \$90 million in Recovery Act funding.

Of the \$21.8 million in new funding coming to the laboratory, \$20 million will enable the construction of an experimental station for the study of matter in extreme conditions at the LCLS, SLAC's new X-ray laser.

"The Matter in Extreme Conditions instrument enabled by the Recovery Act completes the suite of six scientific stations envisioned for the first phase of the LCLS," says Jo Stöhr, LCLS director. "It allows the scientific community to explore, with unprecedented detail, the properties and behavior of matter in extreme states."

The MEC instrument has the unique capability of creating and probing new forms of short-lived states of matter that can exist during fusion processes, the evolution of stars and inside supernovae. Matter passing through such transient states may also be the precursor for new types of materials that have yet remained undiscovered.

The remaining \$1.8 million will be put toward experimental upgrades and equipment at the Stanford Synchrotron Radiation Lightsource. One million dollars will go toward a new experimental station which will allow scientists to study materials in the realistic conditions required for energy, environmental and technological applications. Example applications include the possibility of mimicking photosynthesis for light-induced energy production, studying the structure and role of water in biological systems, and revealing the components and chemistry of crude oil. The other \$0.8 million will be for a needed upgrade of the liquid nitrogen cooling systems required to run the facility at planned higher performance.

Piero Pianetta, acting SSRL director, says, "This takes us from the dreaming stage to the doing stage very quickly. It accelerates these parts of our program by several years."

*SLAC National Accelerator Laboratory is a multi-program laboratory exploring frontier questions in photon science, astrophysics, particle physics and accelerator research. Located in Menlo Park, California, SLAC is operated by Stanford University for the U.S. Department of Energy Office of Science.*