

Above the Gathering Storm, issued in 2005. That report suggested a budget of \$300 million for ARPA-E's first year and a ramping up to \$1 billion within a few years.

David Kramer

news notes

Confirming Chu. President Obama's incoming secretary of energy, physicist Steven Chu, faced lots of questions on nuclear power and coal at his Senate confirmation hearing on 13 January. Chu, a leading advocate of renewable energy, told members of the Committee on Energy and Natural Resources that he supports expansion of the US nuclear power industry and believes that a solution to the nuclear waste storage standoff can be found. The US should consider eventually lifting the ban on the reprocessing of spent nuclear fuel that was instituted during the Carter administration. "We're in a different place and time from then," said Chu, former director of Lawrence Berkeley National Laboratory (LBNL). But given that nuclear fuel is expected to be plentiful for at least the next 10 years, he added there is no urgency to reprocess, and more research should be devoted to developing a reprocessing technology that is more resistant to proliferation than the technologies in commercial use abroad. He pledged to find a solution to the nuclear waste issue, possibly in collaboration with other nations. Obama has promised to terminate the effort to locate a repository for nuclear waste at Yucca Mountain, Nevada, where at least \$9.5 billion has been spent just to determine the site's suitability.

Chu acknowledged that coal will continue to be a vital part of the US energy mix, but only with the addition of carbon capture and storage. Obama favors a cap-and-trade system to control carbon dioxide, Chu said, adding that he personally "philosophically" favors the simplest possible cap-and-trade regime. As for the national labs, he said, "I have challenged some of the best scientists at the Berkeley lab to turn their attention to the energy and climate-change problem and to bridge the gap between the mission-oriented science that [DOE's] Office of Science does so well and the applied research that leads to energy innovation. I have also worked to partner with academia and industry. I know that these efforts are working, and I want to extend this approach to an even greater extent throughout the department's network of national laboratories where 30 000 scientists and engineers are at work performing cutting-edge research."

DK

More UK PhDs. Forty-four training centers are opening this fall at UK universities in a bid to up the number of PhD students in engineering and science. The centers, cross-disciplinary university collaborations with participation from industry, will recruit students with a goal of creating some 2000 PhDs over five years.

The centers will focus on such areas as energy, nanoscience, an aging population, climate change, water management, and high-tech crime. The £250 million (\$375 million) for the centers comes from the Engineering and



Physical Sciences Research Council and will be used to pay lecturers, buy equipment, and support graduate students, among other things.

Paul Drayson (in photo, looking up), the UK state and science minister, says, "Britain faces many challenges in the 21st century and needs scientists and engineers with the right skills to find an-

swers to these challenges, build a strong economy, and keep us globally competitive. EPSRC's doctoral training centers will provide a new wave of engineers and scientists to do the job."

TF

Cavendish medicine. A new building at the University of Cambridge marks the permanent home of a five-year-old center launched to bring the tools of physics to clinical problems. Research at the £12 million (\$18 million) Centre for the Physics of Medicine will focus on stem cells, cancer screening, the physics of the eye, and other areas.

"Our focus will be on the underlying science of disease," says Peter Littlewood, head of Cavendish Laboratory, which manages the center. The center, Littlewood says, has spent about £3-4 million for lab equipment and salaries for four lecturers hired to seed new research; funds have come from the university, government, and private donors.

The center has already spurred collaboration among various Cambridge departments, including the physical, clinical, and life sciences; mathematics; and engineering. One of the center's goals, says its director, Athene Donald, is to get each discipline to learn from the others. "Our plan is to promote dialog and collaboration through symposiums, graduate training programs, and interdisciplinary courses to get people fluent in more than one language of science."

JNAM ■

web watch

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tating impact of Hurricane Katrina.

<http://www.ametsoc.org/videos.html>

From the American Meteorological Society comes **The AMS Video Journal**, a series about the weather, climate, and their impact on society. In a recent video, Max Mayfield, the former director of the National Hurricane Center, examines how well forecasters predicted the devast-

<http://museum.nist.gov/exhibits/rabinow/exhibits.html>

The prolific inventor **Jacob Rabinow** is the subject of an exhibit at NIST's Virtual Museum. Rabinow, who was born in 1910 in Kharkov, Ukraine, spent much of his career at NIST's precursor, the National Bureau of Standards. There, he invented, among other things, the first magnetic disk memory.



<http://www.youtube.com/watch?v=G9NohlFwFQw>



In **Magnetic Movie**, filmmakers Ruth Jarman and Joe Gerhardt superpose animations of solar magnetic fields on filmed scenes from the Space Sciences Laboratory at the University of California, Berkeley. The movie's soundtrack is provided by SSL scientists, who explain the nature of solar magnetism. The five-minute movie can be viewed on YouTube and as an installation at the Exploratorium in San Francisco, where it runs from 26 February through 31 May.