

IPCC modelers say they never meant to suggest they have a better handle on uncertainty than they do. They don't agree on how aerosols came to narrow the apparent range of uncertainty, but they do agree that 20th-century simulations are not IPCC's best measure of uncertainty. "I'm quite pleased with how we're treating the uncertainties," says Gabriele Hegerl of Duke University in Durham, North Carolina, one of two coordinating lead authors on the relevant IPCC chapter, "but it's difficult to communicate" how they

arrived at their best uncertainty estimates.

Hegerl points out that numerical and graphical error ranges in the IPCC report that are attached to the warming predicted for 2100 are more on the order expected by Schwartz and his colleagues. Those error bars are based on "a much more complete analysis of uncertainty" than the success of 20th-century simulations, she notes. It would seem, as noted previously (*Science*, 8 June, p. 1412), IPCC could improve its communication of climate science.

—RICHARD A. KERR

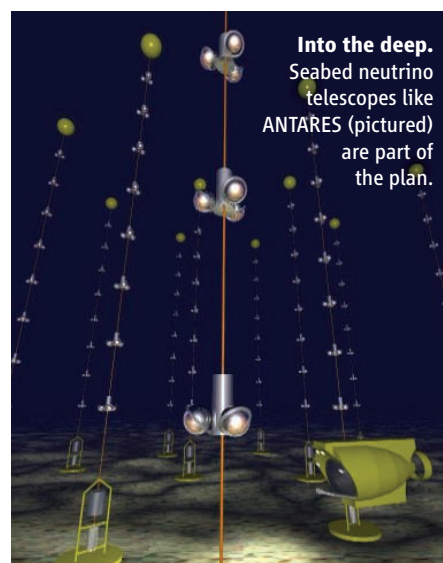
## ASTROPARTICLE PHYSICS

# A Road Map for European Facilities

The youthful field of astroparticle physics—the study of the universe via the cosmic rays, gamma rays, gravity waves, and neutrinos that rain down on Earth—has a growing appetite for infrastructure funding. Last week, a body representing astroparticle physicists across Europe released the first draft of a wish list of facilities. "We're trying to decide which large infrastructures can be funded in the next 10 years," says Stavros Katsanevas of France's National Institute for Nuclear and Particle Physics.

Physicists studying these high-energy visitors from space use a wide range of techniques—vast caverns filled with water to detect neutrinos, arrays of telescopes to spot the flash of light when a high-energy gamma ray hits the upper atmosphere, and interferometers with arms several kilometers long to sense gravity waves. In 2001, six European funding agencies formed the Astroparticle Physics European Coordination (ApPEC) to pool their efforts in the field. A committee was set up 3 years ago to develop a road map and this effort was joined in 2006 by a new European Union (E.U.)-funded astroparticle physics network called ASPERA.

The road map committee divided the field into seven themes, including dark-matter searches, charged cosmic-ray detectors, and neutrino experiments, and asked researchers to propose facilities. Through town meetings and dialogue with researchers, the committee came up with its highest priority projects for each theme. "We covered practically every project in Europe or with European participation," says committee chair Christian Spiering of DESY, Germany's particle physics lab. Although the committee declares that all the highest ranked projects are needed, ApPEC pushed four to the front of the line for E.U. funding: a new telescope array for gamma rays, a dark



**Into the deep.** Seabed neutrino telescopes like ANTARES (pictured) are part of the plan.

matter detector, an underground detector for neutrino astronomy and proton decay, and a next-generation gravity wave interferometer.

ASPERA coordinator Katsanevas says this sort of consensus-building exercise is essential in Europe, where there are 17 national funding agencies with interests in astroparticle physics. Working groups for each theme will now refine the draft road-map proposals with milestones and budgets and consider how they might tie in with similar efforts in the United States or Japan. At present, the total cost of the seven projects proposed (€1.2 billion) would be roughly twice the funding currently available in Europe for astroparticle physics.

European astroparticle physicists have largely welcomed the road map. "The community has been brought together more than ever before," says John Carr, spokesperson for the ANTARES Collaboration, which is constructing a neutrino telescope on the seabed off France's Mediterranean coast.

—DANIEL CLERY

## Sarkozy Assumes, Bestows Control

**PARIS, FRANCE**—French president Nicolas Sarkozy is fulfilling a campaign promise by moving quickly to give more autonomy to his country's 85 universities. His cabinet is reviewing a bill on the topic this week expected to be debated this month in the National Assembly, where Sarkozy's UMP party has a majority. University presidents and the French Academy of Sciences have welcomed the bill, but a group of trade unions calls it "unacceptable" because they say inequality between schools will increase with the competition.

Many in France say the government controls universities too tightly (see page 69). The new bill gives universities more freedom to manage budgets, investments, and real estate, and bestows new powers on school presidents, such as more control over personnel matters. Some controversial elements of the bill—including allowing universities to select students entering the master's level, instead of admitting all applicants—were scrapped after the government negotiated with unions and student movements last week. But unions still have called on their members to protest the revised bill.

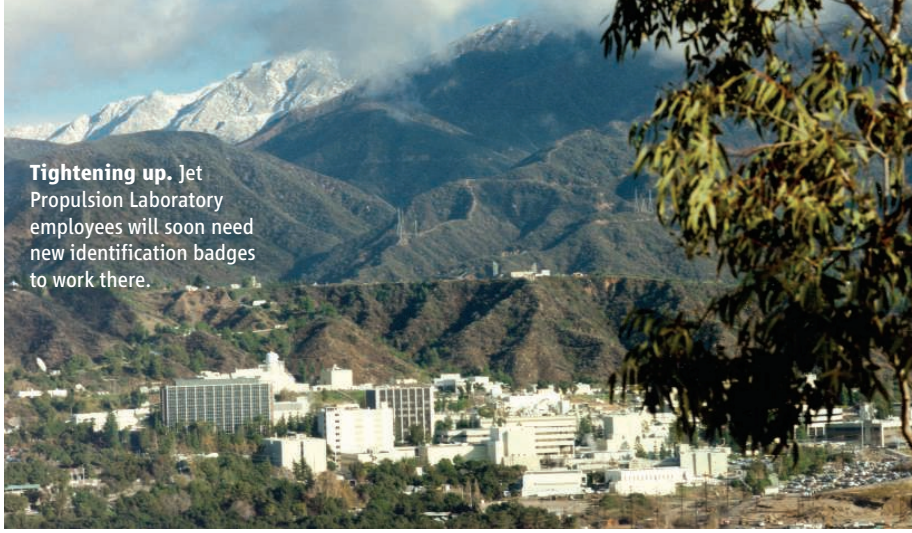
—MARTIN ENSERINK

## Souring on Fake Sugar

Fearful it causes cancer, 12 U.S. environmental health experts last week asked the U.S. Food and Drug Administration (FDA) to review the potential health risks of the artificial sweetener aspartame, which appears in everything from medicines to diet sodas. A study published last month in *Environmental Health Perspectives* found somewhat more leukemias and lymphomas in male rats receiving less aspartame than the recommended maximum for humans; at higher doses, the rats had a marked increase in cancers throughout the body. Pregnant rats were fed the sweetener, and animals received it once they'd been weaned.

The work, by scientists at the European Ramazzini Foundation of Oncology and Environmental Sciences in Bologna, Italy, is "more sensitive and more realistic" than earlier aspartame studies, says James Huff of the National Institute of Environmental Health Sciences, who signed onto the FDA letter drafted by the Washington, D.C.-based watchdog group Center for Science in the Public Interest. But because the study conflicts with earlier work, FDA spokesperson Michael Herndon says that the agency finds the study unpersuasive and that "aspartame is safe." FDA's European counterpart has not responded publicly to the study.

—JENNIFER COUZIN



**Tightening up.** Jet Propulsion Laboratory employees will soon need new identification badges to work there.

## HOMELAND SECURITY

# NASA Lab Workers Decry New Security Checks

Aerospace engineer Dennis Byrnes prefers the open work environment at NASA's Jet Propulsion Laboratory (JPL) in Pasadena, California, to a former job with a defense contractor that required a high-level security clearance. But a new rule requiring federal contractors to undergo an extensive background check before receiving an identification badge has given Byrnes an uncomfortable sense of déjà vu. "I came to JPL to get away from the culture of secrecy," he says. "Now I feel like I'm back in it."

The new rule, which stems from a 2004 directive issued by President George W. Bush to improve security at federal facilities, requires workers to provide their fingerprints and give the government permission to collect information about their past from "schools, residential management agents, employers, criminal justice agencies, retail business establishments, or other sources of information." Federal workers have been required to do this for years; the president's directive extends the requirement to contractors working at federal facilities.

JPL is managed by the California Institute of Technology in Pasadena, but its infrastructure is owned by NASA—unlike many Department of Energy labs, which are owned by their contractors. "All of our property is federal property, and the president's directive says individuals working on federal property must undergo the same background checks that have been required of civil servants," says Veronica McGregor, a JPL spokesperson. Under that interpretation, most of the lab's 11,000 workers are affected, and NASA administrator Michael Griffin has made it clear that they have no choice. "If you do not want to surrender the information to allow

your background to be checked ... then you cannot work within the federal system," Griffin told JPL employees during a 4 June visit.

That message hasn't gone down well among some JPL employees. "Signing this form amounts to inviting the government to go on an open fishing expedition," says planetary scientist Robert Nelson. One employee of 39 years, technical writer Susan Foster, submitted her resignation after learning of the new policy this spring. Rumblings of protest have also arisen at NASA's Goddard Space Flight Center in Greenbelt, Maryland, which has a large number of contractors.

Nelson and three JPL colleagues have complained to two former physicists now in Congress, Representatives Vernon Ehlers (R-MI) and Rush Holt (D-NJ), that the new requirement could hurt the federal government's ability to hire the "very best scientific and engineering talent to address our nation's complex technical needs." Holt says the directive is being implemented in a way that undermines "the open and free environment" required for doing science. "There is a real possibility that this rule will discourage scientists from working with the federal government," adds an aide of Holt's. On 21 May, Holt wrote to the Commerce Department, which developed a common standard for the new identification badges, asking the agency to rethink how the directive should be implemented. Commerce has yet to respond.

JPL's McGregor says anyone who objects to the policy "should work that through the court system." Byrnes and his colleagues say they are ready to hire a lawyer and sue the government. Meanwhile, JPL officials expect every employee to have new IDs before the 27 October deadline.

—YUDHIJIT BHATTACHARJEE

## Blueprint for Children's Study

Researchers can now weigh in on the National Children's Study (NCS), a proposed \$3 billion effort ordered by Congress. Last week, the National Institutes of Health (NIH) in Bethesda, Maryland, described how it intends to track the health of 100,000 U.S. children. The roughly 600-page research plan, developed by NIH staff and outside scientists, outlines research methods and the study's 30 hypotheses—from whether pesticides cause neurological problems to how social programs influence children's health. Officials soon will post the document online, and submit it to the National Academies for a fast-track review. A more detailed protocol must be approved by the White House before the study can begin enrollment, now set for mid-2008. NIH hasn't wanted to fund the NCS, but Congress gave it \$69 million in 2007 with \$110 million pending for 2008.

—JOCELYN KAISER

## Spending Measure Pleases Robot Constituency

NASA earlier this year canceled plans for a series of lunar landers as precursors to the human return to the moon. Not so fast, a Senate spending panel said last week. A report accompanying a bill containing the agency's 2008 budget includes \$48.7 million to keep robotic moon landers on track in the wake of a recent National Research Council report that backed such missions as scientifically valuable. Legislators also includes \$2.3 million for a joint NASA-Department of Energy mission to study dark energy that the space agency wants to delay because of budget constraints, and added money for earth sciences research in line with their House counterparts. But the two bills disagree on the need to hunt for extrasolar planets. Although the House increased funding, the Senate suggests that NASA scale back its plans even more.

—ANDREW LAWLER

## Ecology Lab: Not Dead Yet

Some 40 of roughly 100 staff members at the Savannah River Ecology Laboratory were let go 29 June by the University of Georgia (UGA), which manages the lab. After the Department of Energy cut \$2.2 million in 2007 funding (*Science*, 18 May, p. 969), UGA failed to make up the loss. The dozen or so faculty will stay, says former director Paul Bertsch, although officials are "still trying to figure out" how to support research that is continuing with outside funding; a UGA official says "university efficiencies" will pick up much of the slack.

—ELI KINTISCH