SCIENCESCOPE

edited by DAVID P. HAMILTON

ATOMIC ENERGY OF CANADA LIMITED

Down in the valley. The Chalk River Nuclear Laboratory is the sole supplier of important medical radioisotopes for all of North America.

U.S. Faces Uncertain Medical Isotope Supply

A barely averted Canadian labor strike that threatened to cut off the flow of radiopharmaceuticals to U.S. medical researchers last week has Department of Energy (DOE) officials scrambling to develop a new domestic source for medical isotopes. But DOE's efforts so far have been hamstrung by a requirement from the White House that any new isotope supply program pay its own way.

Ever since environmental problems led Hoffmann-LaRoche to close its upstate New York isotope reactor in January 1990, U.S. hospitals and researchers have been dependent on isotopes produced at the Chalk River reactor in Ontario, Canada. Such dependence has a price: If the reactor's workers had walked out on 21 July as threatened, doctors would have depleted U.S. stocks of short-lived isotopes such as technetium-99 (used in bone, lung, and kidney scans) in just a few days. A similar scare occurred in January 1991, when a broken pipe at Chalk River stopped isotope production for 6 days.

With such close calls in mind, DOE officials have made plans to start isotope production next spring at Los Alamos National Laboratory. But Donald Erb, who heads DOE's new effort, is laboring under an Administration "privatization" mandate that requires the program to pay for itself. That prospect is rather bleak: The isotope project has already spent $16 million of "capitalization" funding that Congress awarded 2 years ago, and Erb has been forced to borrow another $8.5 million from the U.S. Treasury. Erb expects to meet the promised startup in April, but only by borrowing another $1.5 million.

Representative Mike Synar (D–OK), who has been lobbying for a bailout, says if it were possible for a DOE program to go broke, this one would be "on the verge of bankruptcy." He argues that the privatization experiment isn't working—partly because the U.S. program faces competition from subsidized foreign suppliers—and he would therefore like to return to the former arrangement under which DOE financed isotope production as a public service.

San Diego State Faces the Tenure Police

As a result of a recent decision to lay off 193 tenured and tenure-track faculty—including the entire anthropology department and more than half of the chemistry department (*Science*, 26 June, p. 1757)—San Diego State University can now expect a visit from the "tenure police."

Last week, the American Association of University Professors (AAUP) announced that it will investigate the layoffs to determine whether they were truly necessary and whether the university acted fairly in deciding which faculty members to fire. "Retrenchment can provide an easy road to get rid of the unwanted," says an AAUP official.

If AAUP finds fault with the university, it could issue a formal censure—a move that would lead some academic societies to flag San Diego State in their job listings. But the university has little to worry about in the natural sciences: A spot-check by *Science* found that neither the American Chemical Society, the American Physical Society, nor the Federation of American Societies for Experimental Biology check job listings against the AAUP's censure list.

NASA Brainstorms a Neuroscience Shuttle

In a surprising sign that the federal government might be taking the much-hyped "Decade of the Brain" seriously after all, NASA has scheduled a space shuttle flight for early 1998 that will be devoted entirely to studies in neurobiology.

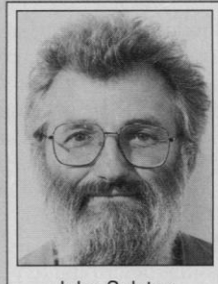
Designated Neurolab, the unique, single-theme shuttle mission could offer scientists a valuable opportunity to investigate neurological systems both in microgravity and under the "hypergravity" of liftoff, says New York University neuroscientist Rodolfo Llinas, who helped organize a recent mission planning session.

While it will be some time before researchers hammer out a final experimental agenda, they are already eagerly discussing proposals for human and animal studies. For example, shuttle mission specialists might study the way the body adjusts its fine motor control to the absence of gravity or focus on how biological development differs under weightless conditions. At the planning meeting, scientists also put forth plans to study cell death in space and the control of neuronal gene expression under microgravity.

In addition to providing an unparalleled occasion to conduct basic research in space, Llinas says, Neurolab will lay important groundwork for extended-duration manned spaceflight, such as long-term habitation of the space station or a mission to Mars. But while Neurolab seems likely to fly one day, NASA's other plans are still very much up in the air.

Charity Launches New Genome Effort

The industrial-style genome center has arrived in Europe and is here to stay. First the CEPH-Généthon complex in Paris applied the production line approach to gene mapping (*Science*, 24 April, p. 463), and now it's the sequencers' turn: With almost $100 million to spend over the next 5 years—courtesy of the Wellcome Trust, Britain's largest research charity—John Sulston of the Cambridge Laboratory of Molecular Biology will this fall launch what should be the world's largest gene sequencing center.



John Sulston

Sulston has made his name as head of the British arm of a transatlantic collaboration that's been working to sequence the genome of the nematode *Caenorhabditis elegans*. With the Wellcome Trust money, he'll be tackling the human and yeast genomes as well in a new center named after Fred Sanger, the double Nobel Prize–winning British biochemist.

The Sanger Center should open this fall—its precise location is still to be arranged—and within 2 years could boast a staff of more than 200, turning out more than 15 megabases of sequence a year. It won't, however, be just a factory: Sulston says he also intends to build a strong gene mapping effort. "We don't want to churn out anonymous sequences," he says.