cision has become a flash point for protestors unhappy with his research priorities.

A French parliamentary commission, which has been examining Allègre's decision to pull the plug on SOLEIL, organized the 2 March roundtable at the National Assembly. The forum was the last step before the commission, headed by National Assembly deputy Christian Cuvilliez and Senate member René Trégouët, releases its report later this month. But the odds have grown vanishingly small that the panel will recommend canceling what some French researchers sarcastically call the "Franco-Wellco-British" synchrotron. "The negotiations are too far along" to put a stop to the project, Cuvilliez told *Science*.

The debate got off to a rollicking start when Nobel laureate Pierre-Gilles de Gennes, a physicist with the Collége de France, questioned the importance of synchrotron facilities. While "the machines are useful," de Gennes said, "if we are speaking of major unexpected discoveries made during the last 15 years, the result is practically nothing." These remarks drew a blistering response. Roger Fourme, head of biology at LURE, an aging x-ray source at Orsay that Allègre wants to shut down in the next few years, rattled off a list of proteins whose structures have recently been solved using synchrotron radiation. And Yves Petroff, director-general of the European Synchrotron Radiation Facility (ESRF) in Grenoble, complained that "de Gennes has not kept up with what is going on in this field," adding that research done at ESRF has been featured on the covers of *Science* and *Nature* four times since the facility went online in 1994.

Whatever the field's intrinsic value, others defended Allègre's decision to join forces with the British. "If SOLEIL had been constructed, it would have had half of the capacity the new synchrotron will have," said geophysicist Vincent Courtillot, research director at the French science ministry. Besides, he said, SOLEIL's price tag—estimated at between $160 million and $300 million—would have taken too big a bite out of the ministry's budget when it's straining to fund new positions for young scientists and to boost basic lab budgets.

On the other hand, Courtillot said, the government is "absolutely open" to the idea of building a smaller synchrotron in France, although he insisted that any such decision must be made in consultation with European partners. This attitude won approval from Nobel laureate Georges Charpak, a physicist at the CERN accelerator facility near Geneva. "It is clear that Europe is behind Japan and the United States in synchrotron radiation," Charpak said. "But does this mean we should catch up country by country?"

–MICHAEL BALTER

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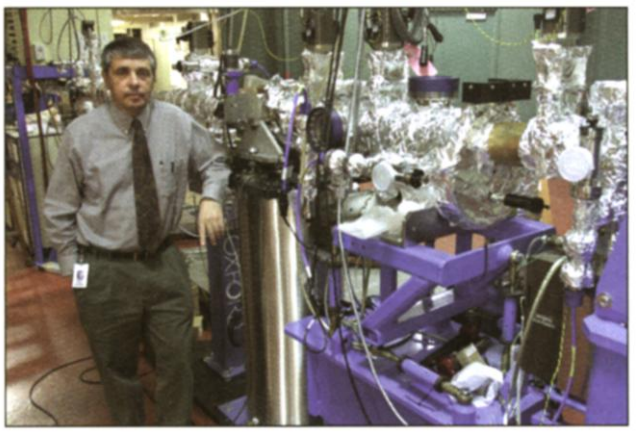
BIG SCIENCE

Prospects Brighten for Berkeley Synchrotron

Two years ago, the future looked grim for the Advanced Light Source (ALS), a premier synchrotron at the Lawrence Berkeley National Laboratory in California. A 1997 report criticized the management of the facility and the quality of the science it produced, and the Department of Energy (DOE) responded by cutting its budget. Now, things are looking up. Last week, a DOE advisory panel gave the synchrotron a glowing review, and DOE officials are now planning to boost its budget. "At last, we are out from under a very dark cloud," says ALS director Daniel Chemla, a physicist at the University of California, Berkeley.

The ALS, opened in 1993, is one of four DOE-funded synchrotrons producing x-rays used to illuminate the structure of everything from computer chips to protein molecules. Researchers have flocked to the particle accelerators cum microscopes in growing numbers over the last decade. Tight budgets during most of this decade, however, have forced DOE to make some hard choices about equipment upgrades and operating funds for the ALS; the National Synchrotron Light Source at Brookhaven National Laboratory in Upton, New York; the Advanced Photon Source at Argonne National Laboratory in Illinois; and Stanford University's Synchrotron Radiation Laboratory in California.



Turnaround. The ALS was sharply criticized in 1997, but it is winning endorsements under new head Daniel Chemla.

To help it decide spending priorities, DOE convened a team led by Massachusetts Institute of Technology physicist Robert Birgeneau. Its report, issued in October 1997, stunned ALS officials, who had expected that their $100 million machine would sail through the review. Instead, the report found that the ALS was poorly managed, relatively underused, and scientifically unproductive, and that its "soft" or long-wavelength x-rays were less attractive to scientists than the hard x-rays produced elsewhere (*Science*, 17 October 1997, p. 377). Within weeks, DOE slashed the light source's $33 million annual operating budget by nearly 10% and postponed some proposed upgrades.

Lawrence Berkeley leaders moved quickly to address administrative shortcomings identified by the report, which some felt unfairly compared the youthful ALS to its more mature siblings. They spun it off as a semiautonomous unit and hired Chemla to develop a long-range scientific plan and mend frayed relations with ALS users, who then numbered less than 250. They also made technical changes that allowed the ALS to produce the hard x-ray beamlines coveted by many scientists, increasing its appeal (*Science*, 27 August 1999, p. 1344).

By last year, the changes were having their intended effect: A review by the University of California, which runs the Berkeley lab, found that the number of users had grown nearly fourfold and that ALS researchers were regularly publishing in premier scientific journals. "The place has really turned around," says physicist Nora Berrah of Western Michigan University in Kalamazoo, who leads the ALS user committee. "We have worked very hard together to show that this is a great place for doing science."

The ALS's scientific productivity impressed members of the recent DOE review panel, led by Yves Petroff of the European Synchrotron Radiation Facility in Grenoble, France. One reviewer, materials scientist Richard Smalley of Rice University in Houston, Texas, was initially doubtful he would find much of value at the ALS. But he was "blown away by what I saw" during the team's 2-day visit last month. And Birgeneau, who was invited by ALS officials to serve on an advisory committee after releasing his report, says he "really admires the way [ALS] responded—they could have launched an attack on the report instead."

Congress will ultimately decide whether those kind words will translate into more money. Anticipating the facility's strong showing, DOE basic sciences chief Pat Dehmer had already proposed increasing its budget by $4.4 million, to $35.4 million, for the budget year that begins on 1 October. In the meantime, Dehmer says, "any lingering prejudice against the ALS should be washed away."

–DAVID MALAKOFF