it, "the focus on safety and security didn't cost anything above normal operating costs."

Despite being glad to be working again, lab scientists say morale remains low. Many say Nanos overreacted and that he insulted them. "We don't have what Nanos has characterized as a bunch of arrogant butthead cowboys at Los Alamos," says Brad Lee Holian, a theoretical physicist who has been at the lab for 32 years (see his upcoming Opinion piece in PHYSICS TODAY). With time on their hands during the work shutdown, Holian and a colleague compared safety records at various national labs and industries. "From 2000 onwards, Los Alamos took over the lead in safety performance among comparable labs in the DOE [Department of Energy] complex," he says. It might have been useful, he adds, "to have spent one day each on safety and security, but to shut down for two months just doesn't make sense."

As for security, Keinigs says, "there is always something one can do better. But the people with whom I work are all very cognizant of security issues. The idea that Nanos promulgated—that we have a scientific culture that led to these problems—is simply not true."

"The problems at Los Alamos are assuming the proportions of a national tragedy," says John Holzrichter, a retired Lawrence Livermore National Laboratory employee who is now president of the Hertz Foundation, a California-based organization that gives grants to graduate students in the physical sciences. "I cannot tell you how disturbed my colleagues and I are by all of this." Holzrichter and others worry that young scientists will shun LANL and other national defense laboratories, and that those who do come will lack mentors due to experts leaving or retiring early.

Concerns about both security and management at Los Alamos have been festering for a few years and have led to much talk among scientists there and beyond as to whether the University of California will continue to oversee the lab. DOE is expected to put lab oversight up for bid this fall. UC officials say the university will bid for the new contract—possibly, it's rumored, together with Bechtel Corp. Referring to the shutdown and firings, an observer familiar with all three weapons labs says that Nanos's "actions seem to be precipitous. We still don't know all the issues. But the lab has been rattled, and morale is damaged. The most significant questions the events of this summer raise are, Is Los Alamos a failed lab? And do you need to bring in a major culture change? The question that follows is, Is UC capable of it?"

Toni Feder

New Hughes Center a Biological Reflection of the Old Bell Labs

Geneticist Gerald Rubin sat in the nondescript conference room of a leftover building that once belonged to a now-defunct software company and talked like a scientist possessed by a vision.

"This is the mythical ivory tower," he said, referring not to his surroundings but to architectural drawings of a mammoth, $320 million laboratory building that is under construction a hundred yards away. "We'll have good coffee, and you just have to do science, nothing else. And that is the empowering thing—or frightening thing. We'll eliminate all of the excuses for not doing science."

Rubin, vice president of biomedical research for the nonprofit Howard Hughes Medical Institute, is, with a few notable colleagues and about $500 million in HHMI money, trying to create a biology-focused version of Bell Laboratories in its heyday. The new HHMI facility, called the Janelia Farm Research Campus after the historic farmhouse that still sits on the site in Ashburn, Virginia, will eventually be home to between 200 and 300 scientists who will have the money, equipment, and support to do high-risk science.

The laboratory, a three-layered, earth-sheltered curve of a structure being built into the side of a hill overlooking the Potomac River, will house 24 small research teams, none larger than six members, that will focus on two fundamental problems: how the human brain works and how to visualize what goes on inside living cells. Researchers are being recruited from the fields of neurobiology, molecular biology, chemistry, genetics, physics, computer science, mathematics, and instrument design. The first 50 are expected to begin work at the lab in the summer of 2006.

The scientists, regardless of background, age, or experience, will be signed for an initial six-year term, during which they will not be required to publish results. They will not be allowed to have outside grants of any sort. Nor will they get tenure. After six years, they will either be invited to stay for another five years or be asked to transition out of the lab over a two-year period. Departing scientists will be given HHMI research funding, which will make them attractive candidates to universities or other more traditional research organizations.

"The staff turnover will be high," said Rubin. "We want people to want to leave. They might stay for 10 or 15 years, but not 30. We want them here when they want to be real, working scientists." Many researchers eventually want to move into administration, teach, or do other types of work, he said. Great, he added, but not at Janelia Farm.

The lab is looking for risk takers, Rubin said, people who want "to do things that are too adventuresome for

When completed in early 2006, Howard Hughes Medical Institute's Janelia Farm Research Campus will consist of a laboratory building (left) with enough space for several hundred researchers, a hotel (right), and a small housing development. The 280-acre campus is on the Potomac River about 30 miles northwest of Washington, DC. (Artist's rendition courtesy of HHMI.)

other kinds of labs." Prospective scientists must convince the lab they have an idea in the relevant fields "that has a 20% chance of success," Rubin said. "If you've got a 90% chance of success, then we'll tell you to go back and think of something more adventuresome."

The idea for the lab started almost as a cliché, drawn on the back of a napkin in a Boulder, Colorado, restaurant by David Clayton, HHMI's chief scientific officer. Clayton, Rubin, and Nobel laureate Thomas Cech, HHMI's president, spent a couple of years developing the idea of the freewheeling lab based on the Bell Labs model. HHMI already funds about 350 university-based scientists, and creating the lab was an alternative to simply funding more university researchers. To determine the focus of the lab's work, Rubin said, they set out to find a "biomed problem" that was interdisciplinary, couldn't be done easily at university labs, and would "make a difference in the world."

The facility, designed by architect Rafael Viñoly, will include the lab, a hotel, and a housing complex for visiting researchers. Rubin is already thinking about the lab's legacy. "Twenty years from now, I want discoveries that, if we hadn't built Janelia Farm, wouldn't have happened. I want to be able to say we did good stuff. That's why we want to do something different."

Jim Dawson

Publishers Sue US Treasury

In a bid to lift restrictions on publishing works by authors in embargoed countries such as Cuba, Iran, and Sudan, a group of US publishers and authors' associations is suing the Treasury Department's Office of Foreign Assets Control. The suit, filed on 27 September, says OFAC's regulations violate the Trading with the Enemy Act, the International Emergency Economic Powers Act, and the First Amendment.

The suit was filed by the Association of American Publishers professional and scholarly publishing division (AAP/PSP), the Association of American University Presses, PEN American Center, and Arcade Publishing. It follows OFAC's ruling from earlier this year, in which the peer-review practices of the Institute of Electrical and Electronics Engineers were deemed legal (see PHYSICS TODAY, May 2004, page 28).

Despite that ruling, other publishers are wary that the door remains open to heavy fines and prison sentences. In particular, they object to the notion of applying for a license to publish. They tried to get OFAC to reverse its regulations without going to court. But, says Marc Brodsky, chairman of the AAP/PSP and executive director of the American Institute of Physics (which publishes PHYSICS TODAY), "we got frustrated. They were anxious to help, but they want to solve problems with specific cases. But the issue is, Why should we have to ask for permission for each case when the regulations are unconstitutional?"

As they stand, Brodsky says, the regulations have "a terrible chilling effect and create an aura of self-censorship." As an example, he points to the journal *Mathematical Geology*, which last spring canceled publication of a paper by Iranian geologists on earthquake prediction. Adds Brodsky, "How can the United States uphold our position as a beacon for the free exchange of ideas and science if we ourselves censor authors because of where they live?"

The government has agreed to expedite the suit. A hearing is expected to be held this month.

Toni Feder