surprised at the government's rigidity. Jane Cardosa, a virologist at the Institute for Health and Community Medicine at the University of Malaysia in Sarawak, says she called the health ministry in November and again in January, urging officials to look for alternative infectious agents. She also expressed her doubts in a January message to ProMED, an electronic forum for emerging-disease researchers. The government's response, she says, was an e-mail reprimanding her for questioning the official theory. "The ministry made an early presumptive diagnosis, and they have difficulty admitting it was a mistake," she says. When costly fogging and vaccination campaigns failed to halt the disease, she adds, "it became even more difficult to admit there was an error." Lam, too, says "it was quite obvious to us right from the beginning that not all the cases were due to Japanese encephalitis." But not being involved in the official investigation, he didn't look for other possible culprits.

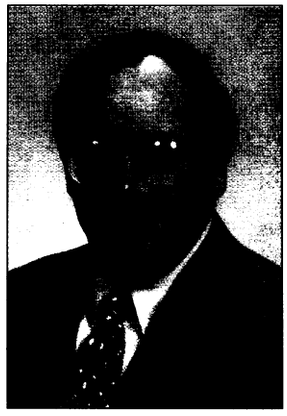
David Quek, editor of the journal of the Malaysian Medical Association, says the episode reminds him of a heart infection outbreak in Sarawak in 1997, in which more than 20 children died. Health authorities blamed that epidemic on the Coxsackie virus—and kept doing so long after scientists had ruled it out as the culprit. This time, says Quek, "we hope that the authorities can be a bit more enlightened. Sometimes it's all right to admit an error." **–MARTIN ENSERINK**

VACCINE DEVELOPMENT

NIH Scientist to Head IVI Institute in Korea

SEOUL—An epidemiologist at the U.S. National Institutes of Health (NIH) has been named the first director of the International Vaccine Institute (IVI) in Seoul, Korea. The appointment of John Clemens to a 5-year term is a major step forward for the independent institute, founded in 1997 by the United Nations Development Program to research and promote vaccines in Asia.

Clemens is chief of the epidemiology branch in the intramural program at the National Institute of Child Health and Human Development, which he joined in 1990. He has spent 15 years in Latin America, Egypt, India, Vietnam, and Bangladesh and has broad experience with pediatric infectious diseases and vaccine development. "He's at home in Asia ... and has real clinical trial experience," says immunologist Barry Bloom, chair of IVI's board of trustees and dean of Harvard School of Public Health in Boston.



Heart and Seoul. John Clemens brings a commitment to pediatric vaccines to IVI post.

Clemens's first challenge after moving to Korea this summer will be to draw up a scientific program for IVI, which has begun to build a $50 million laboratory on the campus of Seoul National University that will be completed in late 2001. He plans to expand studies already under way on the prevalence of disease in the region to include Japanese encephalitis, rotavirus (a cause of diarrhea), and pneumococcal infections. IVI recently launched a study in Korea, China, and Vietnam of *Haemophilus influenzae* type b, which was dethroned as the leading cause of pediatric meningitis in the United States after a successful vaccination campaign. Five major pharmaceutical companies are supporting IVI's effort to study its prevalence in Asia.

IVI is also working with the World Health Organization (WHO) to enroll 600,000 Vietnamese in a test of a promising oral cholera vaccine that costs only 20 cents a dose. "If this vaccine proves to be protective ... it could make a major impact on the global control of cholera," says Clemens.

IVI's long-range goals include helping developing countries raise their rates of vaccination and working jointly with teams of researchers and international health organizations. Its 15,000-square-meter lab will provide space for a staff of 200 recruited internationally and for limited production of vaccines used in clinical trials. Although Clemens has never run an independent research institute, his colleagues are confident that he will learn fast. "He knows how to do what needs to be done," says Bloom.

IVI has already overcome a rocky start. Some saw it as a competitor to private industry and to existing organizations such as WHO (*Science*, 6 December 1996, p. 1607). But 7 years after the institute was first proposed, Clemens asserts that those conflicts have eased. "IVI will serve as a collaborator with WHO wherever and whenever it is appropriate," says Clemens, who has spent 8 years on various WHO vaccine-related steering committees. "But we are not a coordinating agency for other organizations nor a policy-making body [for the community]."

The institute has also survived Asia's economic crisis. The South Korean government, which is paying for the lab, has kept all its financial commitments to date, says Bloom, and the Program for Appropriate Technology and Health, a Seattle-based group that works with developing countries on reproductive technologies, is setting up its Asian office at IVI as part of a $100 million grant last year from Bill Gates (*Science*, 11 December 1998, p. 1971). The grant is expected to be especially helpful in boosting IVI's roster of non-Asian contributors. **–MICHAEL BAKER**

Michael Baker writes from Seoul, Korea.

ANIMAL RIGHTS

Activists Ransack Minnesota Labs

The University of Minnesota is reeling from one of the most damaging attacks on a U.S. research facility by animal rights activists in recent memory. The Animal Liberation Front (ALF) claimed responsibility for an incident last week in which vandals stole over 100 research animals and ransacked labs at the university's Twin Cities campus, causing at least $2 million in direct damage and the disruption of dozens of research projects. Some of the sabotaged projects, in research areas such as Parkinson's disease and cancer therapy, involved human cell cultures but no animals.

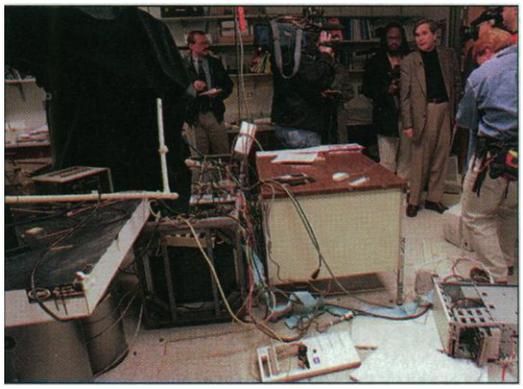
In a press release, the ALF said it had "liberated" the animals and called other damage "economic sabotage" to "decrease profits to the animal abusers." The attack surprised some observers, however, as ALF, whose North American press office is in Minneapolis, had lately turned its attention to fur and farm operations rather than labs. "This is really the first time in at least half a dozen years where there's been major damage to a biomedical research facility," says Frankie Trull, head of the National Association for Biomedical Research in Washington, D.C., which monitors animal rights groups.

In the Minnesota attack, vandals broke into the basement of a psychology building early on Monday, 5 April, and took 116 rats, mice, pigeons, and salamanders. Among the stolen animals were several transgenic mice for studying Alzheimer's disease that Karen Hsiao's group has described in *Science* (4 October 1996, p. 99). A video released by ALF shows several people in black clothes and masks dropping pigeons into white containers and spray-painting the walls with slogans like "No More Torture" and "Animal Liberation Now."

What happened to most of the animals is unclear. A university animal care official found 14 of the 27 pigeons and five dead and three live rats in a field east of Minneapolis. But ALF spokesperson Kevin Kjonaas questions "the validity of anything coming out of the university right now," noting that ALF usually puts animals into homes.

The vandals also broke into a building housing otolaryngology, ophthalmology, and

neurosciences programs, where they ransacked 12 labs, destroying microscopes, computers, and other equipment. In neuroscientist Walter Low's lab, for example, they damaged incubators, resulting in the loss of several cell lines used to test compounds that might block neuron death in diseases such as Alzheimer's and Parkinson's. Low's group also may have lost a hard drive full of preclinical data on a vaccine therapy for brain cancer being tested on human tumor cells. "We were just completely devastated," says Low, whose grad student discovered the damage around 6 a.m.



Aftermath. Computer equipment was among the items vandalized in neuroscience labs.

CREDIT: CRAIG BORCK/ST. PAUL PIONEER PRESS

Although some of the animals, such as Hsiao's Alzheimer's mice, are irreplaceable, insurance will cover much of the damage. In addition, the Minnesota Medical Foundation has set up a $25,000 fund to help researchers rebuild their labs. And a local cancer survivor has offered a $10,000 reward for tips on the perpetrators. **–JOCELYN KAISER**

GRADUATE FELLOWSHIPS

Fewer Minorities Under New NSF Rules

Last month the National Science Foundation (NSF) selected 900 aspiring young scientists to receive its prestigious graduate research fellowships. But the news was tempered by the fact that the number of minorities chosen had dropped by more than half from last year's total, from 175 to 76. The decline, following the cancellation of a separate competition for underrepresented minorities begun 20 years ago, is the latest fallout from legislative and judicial rulings prohibiting the use of race as a selection criterion in education.

"I'm not surprised," says biologist Joel Oppenheim, head of the Sackler Institute of Graduate Biomedical Sciences at New York University, which aggressively recruits minority students. He notes that the elimination of affirmative action programs has also had a chilling impact on minority enrollment in college and graduate schools.

The drop comes in the midst of declining interest in the fellowship program, which received 13% fewer applications this year (from 5548 to 4796). For minorities, however, the decline was an even steeper 20%—from 697 to 559—despite an increase in NSF's outreach efforts to schools with sizable minority populations. "There is a feeling among minorities that they didn't stand as good a chance once NSF dropped its sheltered fellowship program," says Rice University mathematician Richard Tapia, a member of NSF's oversight National Science Board.

NSF has traditionally used targeted programs to accomplish its congressional mandate to increase participation in science by members of all segments of society. But officials are reviewing some two dozen programs to see if they still satisfy both the law and the current political climate. They revamped the 47-year-old graduate fellowship program last year after being sued for discrimination by a white student who was denied the chance to apply to the minority component of the program (*Science*, 2 January 1998, p. 22). The agency paid $95,400 in a pretrial settlement and soon after announced that it would no longer set aside 15% of the total number of slots for a competition reserved for African-American, Hispanic, and native American students. Under the new rules, all applicants for the 3-year, $15,000 a year awards were funneled into one competition.

Hoping to minimize any negative impact of the new rules, NSF officials dispensed with an initial numerical rating of each applicant—based on such quantitative factors as Graduate Record Exam scores, undergraduate grade point average, and a ranking of the baccalaureate institution—that was thought to put some minority candidates at a disadvantage. The change was designed to give more weight to less tangible factors such as persistence and commitment. Officials also ended the practice of assigning only one reviewer to applications that had received a low rating. "This year we heavily emphasized that reviewers needed to look at all the material in the application," says Susan Duby, head of NSF's division of graduate education. Every application was read by at least two reviewers, she says. But these measures apparently weren't enough to avert the sharp drop in awards to minority students.

Duby says NSF plans to be even more aggressive next year in spreading the word about the fellowship program and counseling potential applicants on how to improve their odds. But Tapia, who has successfully boosted minority participation in graduate programs at Rice, cautions that NSF should not expect to see the number of minority

ScienceScope

Skating to Extinction Marine researchers want international action to save the barndoor skate, which they fear could become the first saltwater vertebrate to be fished to extinction. Last year, Canadian biologists Jill Casey and Ransom Myers concluded that trawlers targeting other seafood had unintentionally wiped out most of the North Atlantic's barndoors (*Science*, 31 July 1998, p. 690).

Now, after reaffirming the fish's plight at a 19 March technical workshop at the New England Aquarium in Boston, 10 scientists are calling on U.S. and Canadian authorities to restrict bottom fishing in the skate's few known strongholds. They also tacitly endorsed a bid by two environmental groups to get the U.S. National Marine Fisheries Service (NMFS) to list the skate as endangered. "Without strong measures," says Myers, "I doubt the species will survive."

Commercial fishing interests are promising to fight any proposed listing. NMFS officials, meanwhile, have a year to ponder the issue.

Mob Rule In an 11th-hour campaign to tip the scales in their favor, supporters of a controversial new data-access law flooded the White House Office of Management and Budget (OMB) in early April with letters supporting its implementation. Many scientists oppose the provision, pushed by Senator Richard Shelby (R–AL), which would force taxpayer-funded researchers to hand over raw data to the public on request (*Science*, 2 April, p. 23). But when a public comment period closed on 5 April, supporters appeared to have cranked out the majority of more than 10,000 comments sent to OMB, although no exact count was available.

Stacks of pro-rule comments were identical letters from members of Gun Owners of America, which says the rule will help it "expose all the phony science used to justify many restrictions on firearms." Members of English First also backed the plan en masse, saying it will open to scrutiny studies supporting bilingual education.

Whether OMB will give greater weight to the mass-produced missives or to the fewer personal appeals from researchers detailing how the law could disrupt their work was unclear. A spokesperson said that both the "amount of interest" and "substantive arguments" will influence a revised proposal due later this year.

Contributors: Helen Gavaghan, James Glanz, Jeffrey Mervis, David Malakoff, Jocelyn Kaiser