perconductors and their quirky parents will remain one of the most enigmatic families in physics. –ROBERT F. SERVICE

ANIMAL EXPERIMENTATION

India Backs Off on Central Control

NEW DELHI—Indian scientists are hailing a government decision to scale back a proposal for a centrally run system to regulate research involving animals. The final rules, adopted late last month, would instead place primary responsibility in the hands of animal ethics committees at individual universities and institutes, avoiding a bottleneck that scientists feared could stifle research. "I am satisfied that science will not suffer" once the rules are implemented, says Pradeep Kumar Dave, an orthopedic surgeon and director of the All India Institute of Medical Sciences here.

CREDIT: PALLAVA BAGLA

Keeping count. New animal care rules place responsibility in the hands of individual facilities like the National Institute of Immunology, above.

The initial proposal, from a committee chaired by social justice and empowerment minister Maneka Gandhi, would have prohibited all animal experimentation without the explicit written approval of the committee (*Science*, 18 September, p. 1777). Gandhi, an outspoken animal rights activist, said at the time that the government needed to step in after an attempt at self-regulation, based on 1992 guidelines from the Indian National Science Academy, had failed. But her proposal kicked up a ruckus among the scientific community. Passions ran high: Immunologist Nirmal Kumar Ganguly, director-general of the Indian Council of Medical Research here, warned of "chaos and confusion leading to anarchy" if the rules were implemented without amendments.

The final rules give institutional panels the authority to approve animal experiments for entire programs and projects rather than the experiment-by-experiment basis envisioned in the initial proposal. All biomedical institutions using animals still must register with the social justice ministry within 60 days, but institutions need not wait for a response before carrying out the necessary oversight duties.

The institutional panels will be composed of biomedical scientists both from within the institution and outside, as well as a veterinarian, a nonscientist, and a government representative. The first order of business for many institutions will be to create such a panel: A recent survey revealed that only 50% of all laboratories had any form of animal ethics committee. The committees will be responsible for day-to-day monitoring of experiments, but they must report periodically to the ministry, which can suspend or revoke the license of any laboratory found wanting.

The final rules also remove a proposed ban on contract and collaborative research involving animals with overseas educational institutions, although they still prohibit contract research—such as the use of monkeys to test drugs for multinational drug companies—carried out purely for monetary considerations. It will also be more difficult for Indian institutions to import animals from overseas labs: The rules allow transfers only between labs already registered with the Indian government, in effect limiting the pool to domestic facilities.

The rules are expected to become law by the end of the month, putting an end to what Gandhi calls "rogue firms" that have ignored proper procedures for animal safety. "It's time for them to put up or shut up," she says. –PALLAVA BAGLA

Pallava Bagla is a correspondent in New Delhi.

GERMAN RESEARCH

Extremists Steal Minister's Spotlight

It had the makings of a banner week for German science, with the new education and research minister, Edelgard Bulmahn, announcing plans to increase federal funding for research and higher education, dismantle some outmoded nuclear-power research facilities, and strengthen programs to help women and young scientists. The premiere basic-research organization, the Max Planck Society, also pitched in with a positive spin on its plans for the year ahead. But the week also saw a sharp reminder of deep divisions in public attitudes toward science: The boldest headlines went to an incident in which a prominent German researcher was placed under police protection following threats from animal rights activists.

In a speech in Bonn, Bulmahn announced that the government plans major investments and reforms in Germany's trou-

ScienceScope

NIH STAKES CLAIM FOR GENETIC DRUG DATA

The National Institutes of Health (NIH) plans to spend $100 million over the next 5 years to secure public access to genetic data that might otherwise be locked up by drug firms. The move comes as researchers scramble to turn unprecedented knowledge of the human genome into drugs tailored to fit an individual's genetic makeup.

Later this month, NIH will unveil a plan to establish a public pharmacogenomics database holding information about individual genes and functions that could be useful to basic researchers and drug designers. It augments another NIH program, announced last month, to search for genetic variations that alter drug effectiveness. The new initiative, which will fund a network of about a dozen centers, is "very timely," says biochemist Fred Guengrich of Vanderbilt University in Nashville, Tennessee. And it will have "a real soup-to-nuts flavor," adds Rochelle Long of the National Institute of General Medical Sciences, involving researchers from a variety of disciplines working on a range of diseases.

GEORGETOWN FACULTY ON WARPATH

A high-profile campus feud is heating up. Researchers at the Georgetown University Medical Center in Washington, D.C., are threatening to sue their employer, claiming the university's board of directors unfairly rejected a faculty protest of a new salary policy.

Last spring, 18 scientists filed a grievance complaining that the policy, which requires researchers to hustle up the lion's share of their pay through grants, violates tenure and academic freedom (*Science*, 5 June, p. 1531). A grievance panel ruled in the scientists' favor, but on 30 October the board ruled the dispute out of bounds for a grievance proceeding. The board did suspend further implementation of the policy pending a review.

Faculty members, unappeased, say the board has run roughshod over campus rules. "It's like declaring martial law," says professor Karen Gale. The grievants' lawyer, Steve Hoffman, says he'll go to court if the university fails to nix the policy by 13 December. A Georgetown spokesperson insists that "the review is a fair approach made in the spirit of cooperation and collegiality."

Contributors: David Kestenbaum, Eliot Marshall, Elizabeth Pennisi, and Constance Holden

bled university system, with the goal of making universities more dynamic, flexible, and international. The ministry wants a $500 million increase in next year's budget, to $9 billion, and plans to double expenditures over the next 5 years on investments in higher education and research—such as renovating university laboratories and other facilities.

Boost for science. Research minister Bulmahn.

In an announcement that dovetails with the new German government's plans to phase out the nuclear power industry, Bulmahn also said some experimental and pilot-project facilities will be shut down or dismantled. A ministry spokesperson says the outmoded reactors include the THTR high-temperature reactor in Hamm, the FR-II research reactor in Karlsruhe, the HDR reactor in Kahl, and a reactor near the Bavarian town of Niederaichbach. A nuclear-energy expert associated with the German Physical Society told *Science* that he was unaware of any significant research now being done at those four reactors. A full list was unavailable.

Bulmahn also signaled that she would like to shift the focus of space science but lacks the flexibility to do so. She criticized her predecessor's decision to commit most of Germany's space resources to crewed missions, yet insisted that Germany would stand by its commitments to spend nearly $1.5 billion on the international space station—about 40% of Europe's total contribution. Germany plans to keep working within the framework of the European Space Agency but will press to continue reforms to streamline the agency's administration.

At the Max Planck Society's annual news conference in Bonn last week, the society's president, biologist Hubert Markl, praised Bulmahn's ministry for agreeing to 5% annual budget increases for both Max Planck and the DFG granting agency and for giving Max Planck more leeway in how it spends its federal and state funds. "We need this autonomy to make us more flexible and innovative at a time of increasingly competitive international research," said Markl. He added that, with last month's opening of the Ethnological Research Institute in Halle, Max Planck had completed its 8-year expansion program into former East Germany, establishing 20 research centers there.

But the edge was taken off the good news by the furor created when members of a militant animal rights group made physical threats against Wolf Singer, a director of the Max Planck Institute for Brain Research. As a result, Singer, whose lab uses primates to research brain function, was guarded by police when he received an award in Frankfurt on 29 November. At least one other German neurobiologist, at the University of Bremen, also had received police protection this year as a result of similar threats.

Markl says he was outraged that Singer—an internationally respected researcher—has been threatened by "fanatical opponents of animal experimentation." He defended Max Planck's policies on the use of laboratory animals in research and says he regarded the threats against Singer as "an attack on the freedom of research in Germany."

–ROBERT KOENIG

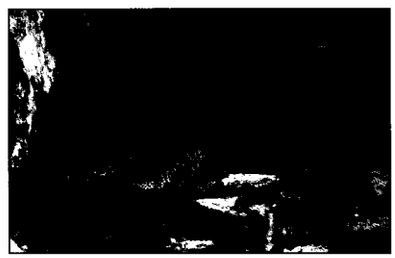
Robert Koenig is a writer in Bern, Switzerland.

AUSTRALIA

Forest Pact Bypasses Computer Model

MELBOURNE, AUSTRALIA—Conservation scientists are reeling from the outcome of a fight over one of Australia's richest regions of biodiversity. An innovative and internationally praised scheme for reconciling conflicts over natural resources that tapped a 3-year, $23 million biota survey proved no match this fall for old-fashioned political muscle. The result was a bill passed late last month by state legislators permitting extensive logging in diverse forest ecosystems in the northeast corner of the state.

"This is a massive waste," says Andrew Beattie, director of the Key Center for Biodiversity and Bio-resources at Macquarie University in Sydney. "The NSW [New South Wales] government paid for a world-class system for mediating forest conflicts through scientific knowledge but in the end chose to ignore a major part of its findings." Dailan Pugh, a negotiator for the Nature Conservation Council, an umbrella group for private-sector conservation efforts in the state, says the plan represents the worst "regional forest agreement" in the country.



Uninhabitable. Australia's Hasting's River mouse could become extinct under a new forest reserve plan.

Timber officials are hailing the new legislation as a shot in the arm for the industry. Col Dorber, executive director of the Forest Products Association, says that forest industry companies have already invested $16 million since the agreement was struck, buying up land for plantations and to obtain carbon credits that allow polluting industries to stay within government emissions standards. Government and industry officials also argue that the plan for the 380,000-hectare reserve, which creates 85 national parks, balances the interest of all sides. "It would be difficult for anyone to argue that the government has not met conservation targets given that the process has been recognized as world-leading," says Craig Knowles, the state's minister for planning.

That process was intended to showcase one of the most comprehensive ecological data sets anywhere in the world and state-of-the-art conservation planning software developed by scientists at the state National Parks and Wildlife Service (NPWS). It involved a program, called C-Plan, that allowed stakeholders to negotiate an arrangement that could meet both conservation targets and timber quotas (*Science*, 18 September, p. 1789).

C-Plan was used successfully in preliminary negotiations in 1996 that led to nine new nature reserves in the eastern portion of the state and logging moratoria in areas likely to be tapped as national parks. However, the assessments required a second round of negotiations based on the detailed data sets. And this fall the "world-leading" process broke down during negotiations over 10 million hectares in the northeast region, say Pugh and Beattie, leaving the conservationists standing out in the cold. Instead, state officials worked behind closed doors to produce a plan that covered an area less than half the size that conservationists have insisted is necessary for biodiversity and that doubled, from 10 to 20 years, the length of time industry could continue logging at its current quota.

Conservationists are also upset by the type of land to be included in the reserves. It's mostly unloggable escarpment forests already well represented, while diverse forest ecosystems in the foothills to the east and the tablelands to the west were left out. An analysis by the C-Plan support team at the state NPWS shows that the plan meets only 30% of the conservation targets achievable on public land for the highest priority species. One species likely to face extinction as a result of the plan is the Hasting's River mouse. Its last refuge is scattered habitats from the northeast NSW forests to the Queensland border, but the plan includes only 7% of its recommended conservation target.

Conservationists and scientists are not

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