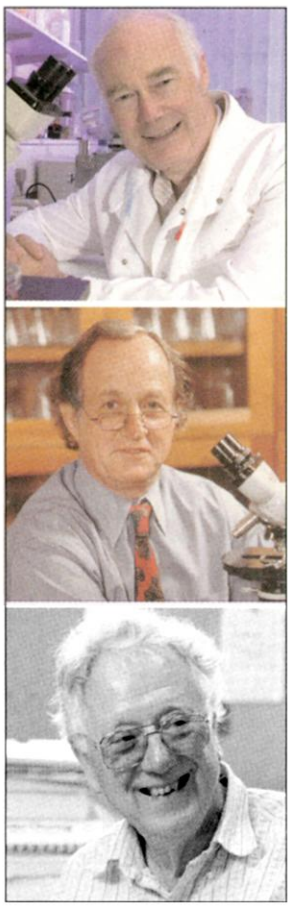
LASKER AWARDS

Geneticists Knock Out Lasker Competition

The creators of "knockout" mice and the developer of in vitro fertilization have won this year's research awards from the Albert and Mary Lasker Foundation in New York City, one of biomedicine's most prestigious prizes. Also honored is an epidemiologist who has battled smallpox and river blindness.



Prized researchers. Martin Evans (*top*), Mario Capecchi (*middle*), and Oliver Smithies (*bottom*) won this year's Lasker for basic research.

The award for basic medical research went to geneticists Mario Capecchi of the University of Utah in Salt Lake City, Martin Evans of Cardiff University in the United Kingdom, and Oliver Smithies of the University of North Carolina School of Medicine in Chapel Hill. The three developed gene-targeting technology that allows scientists to breed mice with specific genes disabled. Researchers have used this knockout technology to determine the function of newly discovered genes and to create mouse models of genetically influenced human diseases such as cancer, cystic fibrosis, and atherosclerosis.

In the clinical research category, Robert G. Edwards of the University of Cambridge won for the development of human in vitro fertilization. Research by Edwards and his colleague Patrick Steptoe, who died in 1988, has led to the births of almost 1 million infants since the first "test-tube baby" in 1978.

Finally, the award for public service in support of medical research and the health sciences went to William H. Foege, former head of the Centers for Disease Control and Prevention and now at Emory University in Atlanta. He outsmarted a burgeoning smallpox epidemic in Africa in 1966 and went on to help track down the causes of toxic shock syndrome and Reye's syndrome.

The Laskers, often viewed as warm-up awards for the Nobel Prize in physiology or medicine, will be presented at a dinner in New York City on 21 September. They're high in honor if not cash: Prizes in each research category are accompanied by $50,000.

–CONSTANCE HOLDEN

ANIMAL CARE

Report Castigates Indian Lab Practices

NEW DELHI—Most Indian laboratories that use animals in research are failing to care for them adequately, according to a new survey by a government watchdog.

The survey comes almost 3 years after the government imposed more stringent rules on the use of animals in experimentation (*Science*, 11 December 1998, p. 1967). It finds that more than 80%—300 of 367—of the labs inspected "do not have the basic facilities for [properly] housing" the animals in their possession. The report scolds scientists for showing "a lack of knowledge and concern" about the welfare of laboratory animals, adding that the community "is not aware of developments with regard to alternatives to animal experimentation." The criticism covers some of the country's more prestigious biomedical facilities, including the Indian Institute of Science (IISc) in Bangalore and the National Institute of Nutrition (NIN) in Hyderabad.

The survey was conducted by a committee of the Indian Animal Welfare Board, chaired by Maneka Gandhi, India's minister for animal care and culture and a longtime animal rights activist. Gandhi told *Science* that the Indian biomedical scientific community is "lazy about adopting world-class standards and just wants to continue in the same state of inertia." Committee member Raman Sukumar, a mammal ecologist at IISc's Centre for Ecological Sciences, adds that "a lack of awareness among society at large about the ethics of animal welfare is responsible for the current situation."

The team of inspectors found violations ranging from a failure to obtain approval for planned experiments to the use of sick and dying animals. The report also suggests that much of the research is unproductive, noting that "few [results] get published in international journals."

Officials at most of the institutions surveyed agree that changes are needed, but they argue that tight budgets prevent the construction and maintenance of state-of-the-art animal houses. The report notes, for example, that IISc officials told inspectors that the "deplorable condition of the primate house was on account of very limited funds." Kamala Krishnaswamy, director of NIN—one of India's largest suppliers of laboratory animals—says that the poor infrastructure is compounded by an acute shortage of knowledgeable and caring staff. Although Sukumar says that "all major animal experimentation facilities should have a full-time veterinarian," Krishnaswamy and others note that few Indian vets have the training for such a role. At the same time, Krishnaswamy says scientists realize that their results will be questioned if they do not "use the best quality animals and ensure their appropriate care."

The government's system for overseeing animal experimentation is part of the problem, say researchers, either driving researchers away from the field or tempting them to cut corners. "Many scientists are reluctant to take up animal studies because of the delays in getting approval for projects involving the use of animals," says Krishnaswamy, pointing to a recent 7-month delay in winning approval for a project involving a recombinant DNA antirabies vaccine developed by the IISc. "The paperwork is really killing," agrees Satyajit Rath, an immunologist at the National Institute of Immunology in New Delhi.

Most of the issues raised by the report would be better handled by scientific advisory committees, say many scientists, adding that the inspectors are not always capable of judging the scientific merits of experiments that they condemn. Varaprasad Reddy, chief of Shantha Biotechnics Pvt. Ltd. in Hyderabad, one of the country's largest biomedical companies, says that Gandhi's committee "is now acting like a rowdy cop, coming down ruthlessly on any animal house."

Dirty work. Primates used for research at the National Institute of Immunology, one of several labs faulted for poor care.

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