

THE British government is to draw up codes of practice for some experiments involving the genetic manipulation of microorganisms which could pose a potential hazard to workers and the general public. Mr Fred Mulley, Secretary of State for Education and Science, in answer to a parliamentary question, announced the setting up of a working party which would

- draft a central code of practice and make recommendations for the establishment of a central advisory service for laboratories using the techniques available for such genetic manipulation, and for the provision of necessary training facilities.

- consider the practical aspects of applying in appropriate cases the controls advocated by the Working Party on the Laboratory Use of Dangerous Pathogens, chaired by Lord Godber, which reported earlier this year.

Mr Mulley also asked the Research Councils and others concerned not to proceed with work already identified as involving a potentially serious hazard, pending advice from the work-

ing party.

The question of potential hazards inherent in the new techniques which allow DNA of different bacteria and viruses to be linked together and introduced into other bacteria was con-

## Government codes for gene manipulation

by Eleanor Lawrence

sidered by the Working Party on the Experimental Manipulation of the Genetic Composition of Microorganisms, set up by the Advisory Board for the Research Councils and chaired by Lord Ashby. This committee, which reported in January of this year, came to the conclusion that such experiments should be permitted but only with certain safeguards.

These conditions include the use of experimental microorganisms which have been rendered relatively innocuous by specific mutations, and that certain

types of experiment should be carried out under conditions of the strictest bacteriological security, in laboratories where the risk of escape to the outside or contamination of workers is minimised.

The definitive code of practice approved by the government, which the new working party should provide, will be welcome since it should end a period of delay and uncertainty which started a year ago with a call for a moratorium on a range of experiments by a committee of the National Academy of Sciences in the United States. At the same time the working party will be concerned with the practical aspects of implementing the findings of the Godber Committee which considered the use of proven pathogenic bacteria and viruses in laboratories throughout the UK. This committee drew up a list of organisms which could only be worked within conditions of strict security, which in the UK would confine such work to the few existing laboratories with suitable facilities. □

## Shutting the GATE

by John Gribbin

THE World Meteorological Organisation (WMO) has been stirred into issuing a formal denial that the GARP Atlantic Tropical Experiment (GATE), conducted last year by ten nations and probably the largest and most complex international scientific experiment ever undertaken, was an experiment in hurricane control which adversely affected weather conditions in some countries.

The need for this denial stems, according to the WMO, from a statement made by "a professor of the

University of Mexico", and the WMO says that "it would indeed be regrettable if such unjustified statements were to detract from the acknowledged success of this international scientific research venture". Since the purpose of GATE was to monitor natural changes in the atmosphere and oceans, including large scale tropical disturbances, it would have been rather stupid of the investigators to attempt to alter the natural state of affairs, and most meteorologists are well aware of the need to understand natural changes in atmospheric processes before trying to induce changes by artificial means.

Perhaps the professor was confused by the inclusion of the word "experiment" in GATE's name which, al-

though in the acronymous tradition of the WMO, is perhaps a slightly misleading title for an entirely observational project. But since Mexico was one of the participating countries, it should not have been too difficult for the critic to check his facts before issuing a public statement. The lesson to be drawn, perhaps, is that research into weather and climate is such a sensitive area that bodies such as the WMO should expect to be subject to the same intensive scrutiny as agencies responsible for nuclear research, or laboratories involved in genetic engineering.

In that case, perhaps GARP Atlantic Tropical Study might have been a happier choice of name. □

# correspondence

## PAC report: a failure of communication

THE Indian Public Accounts Committee report "Foreign Participation or Collaboration in Research Projects in India" (discussed in a leading article on July 31) was critical of the Bombay Natural History Society, as well of the Research Unit for Genetic Control of Mosquitoes. In this letter, Dr A. N. D. Nanavati, Secretary of the Bombay Natural History Society, considers some implications of the report.

THE Public Accounts Committee (PAC) has expressed grave doubts about a number of research programmes carried out with foreign collaboration in India. Much of their alarm stems from the fact that the knowledge obtained from such researches can have applications in chemical and biological warfare (CBW) and that the administrators examined by them did not seem to be fully aware of the fact. Based on this finding the committee has formed an opinion implied, though not explicitly stated, that those concerned in these

projects were dupes, sometimes maybe even willing tools (in view of the relatively high salaries they received) in the hands of foreign organisations who wished to use India as an experimental arena for such studies.

I do not propose to go into the details or to try to refute the numerous misunderstandings and errors in the evidence on which these opinions were based. The facts of which I have personal knowledge, namely those connected with the Bombay Natural History Society (BNHS)—Migratory