

Genetic manipulation

British watchdog reconstituted

BRITAIN'S Genetic Manipulation Advisory Group, known as GMAG (pronounced Gee-mag with the first syllable as in "genome"), met for the last time last week. The group is to be replaced by a new body, the Advisory Committee on Genetic Manipulation (ACGM), which will give advice on safety aspects of recombinant DNA techniques to the Health and Safety Commission, an independent body charged with devising policy on occupational safety for implementation by the Health and Safety Executive.

The formation of ACGM was announced in the House of Commons by Mr Peter Brooke, Under Secretary of State in the Department of Education and Science, under whose aegis GMAG operated. Like GMAG, the new body will have representatives of employers' and employees' organizations as well as technical experts. Unlike GMAG, however, ACGM will have no representatives of "the public interest". The new committee, whose membership has not yet been announced, will be concerned with policy matters, leaving the scrutiny of individual experiments to officials.

There has been a growing consensus that work involving genetic manipulation holds fewer hazards than was at one time feared, and so GMAG's role has become correspondingly less important. It would have been disbanded before now but for the delay in setting up a parallel body, the Advisory Committee on Dangerous Pathogens, itself caused chiefly by an outbreak of smallpox infection at the University of Birmingham in 1978. The government seems to have decided that it would be politically inappropriate to do away with GMAG while the pathogens committee was being reorganized.

ACGM will take more of a back seat than did GMAG. GMAG members, many of whom will serve on the new committee, have, however, been told that the new committee will be free to initiate action and to plan its own work. The decision to hand over the day-to-day business of keeping records of recombinant DNA research to the Health and Safety Executive was fully approved by GMAG members, although some working scientists doubt whether the change will make their lives easier. Most say they were content with the way in which GMAG carried out its duties in recent years, since the levels of containment required for most work have been reduced and notifications of routine work can now be made retrospectively. In future, scientists will have to deal with officials of the Health and Safety Executive who may be less easy to please than GMAG.

The new committee has been given by GMAG a list of several urgent topics for discussion, including commercial con-

fidentiality, the release of genetically engineered organisms into the environment and work with oncogenes. Despite industrial scepticism at the outset, GMAG seems to have been able to assure commercial companies of confidentiality; now, doubts have arisen whether the constitution of the Health and Safety Executive, which includes provision for the disclosure to work-people of companies' plans, will allow this guarantee to be continued.

British opinion on the release of genetically-engineered organisms into the environment, recently a source of controversy in the United States (see *Nature* 305, 564; 1983), is likely first to be tested by research at the John Innes Institute in Norwich. Work with *Rhizobium* bacteria, which fix nitrogen in legumes, holds the promise of allowing the host specificity of different species to be altered, when the efficiency of nitrogen fixation might also be

increased. Before approving field trials, ACGM will have to be sure that an experimental organism could not compete with wild types or, alternatively, could be destroyed if necessary. One fear is that host growth could be inhibited: disablement of legumes with a selected strain of *Rhizobium* has already been demonstrated and an engineered strain could conceivably be an effective pathogen. And the committee is asked to note the growing evidence that some human oncogenes linked to particular promoters may function like animal tumour viruses.

While nobody doubts the competence of the new committee to tackle these issues, another question remains: who will be responsible for considering ethical problems that may arise with genetic manipulation techniques? The government's Warnock committee, which is expected to report in the summer, is considering these questions as they relate to human fertility, but some members of GMAG want to see more permanent provision made. The issue is so far unresolved.

Tim Beardsley

European air pollution

UK inspector protests at Brussels

SHOULD air pollution controls in Britain be tightened in order to combat acid precipitation? The latest body to enter the debate is the Industrial Air Pollution Inspectorate. In the inspectorate's annual report published this week*, the chief inspector, Dr Leslie Reed, inveighs against the use in legislation of emission limits such as those planned in two European Commission proposals for Community directives. Dr Reed will be giving evidence on the European air pollution proposals next week to the House of Lords' European Communities committee.

The cornerstone of British air pollution control since the first Alkali Act was passed in 1863 has been the statutory requirement that operators of scheduled plant should employ the "best practicable means" to control emissions. The chief industrial air pollution inspector, who was until recently known as the chief alkali inspector, has in practice drawn up presumptive emission limits — specified as milligrams of pollutant per cubic metre of air emitted — but these are used to indicate only whether an operator is making a reasonable effort and have no force in law. Dr Reed's defence of the system is that presumptive limits can be changed rapidly as technological advances allow and that the actual emissions allowed may be altered to suit local circumstances.

Britain has already objected at Brussels to the section of a proposed framework directive on air pollution control that calls for the introduction of Community-wide emission limits agreed by a two-thirds majority. The European Communities' Council of Ministers will meet in March to try and find a way round the impasse. A

second proposed directive on fixed emission limits for major combustion plant, which also specifies targets for swingeing cuts in total national emissions, is likely to be opposed by Britain. This proposal is being pushed hard by West Germany which fears that transboundary pollution is contributing to mounting damage to its forests.

But Dr Reed fears that adopting these directives will introduce another tier of authority in Britain for the sake of "one or two European countries which have inadequate controls of their own". Dr Reed also has doubts about a third European directive on air quality standards for nitrogen dioxide. While accepting the principle, Britain should, he says, resist demands for standards that would require costly measures by industry to ensure compliance but which are based on inadequate evidence of need.

Acid rain was the subject of a major speech recently by Mr Ian MacGregor, chairman of the National Coal Board, who said that "after we have crippled some of our basic industries we could then find we had not solved the problem". He pointed out that volcanic activity may emit huge quantities of sulphuric acid into the atmosphere and that some of the reported damage to conifers was unlikely to be due to sulphur dioxide pollution because the trees bore healthy growths of lichen. He concluded that short-term action, such as liming affected waters, should be applied vigorously until science is able to establish the facts.

Tim Beardsley

*Industrial Air Pollution: Health and Safety 1982 (Health and Safety Executive).