

US genetic regulations

Bacterial field trial to go ahead

Washington

TWO weeks after a federal judge halted Dr Steven Lindow's planned field trial of recombinant ice-nucleating bacteria (see *Nature* 24 May, p.296), the Recombinant DNA Advisory Committee (RAC) of the US National Institutes of Health (NIH) approved a virtually identical proposal from Advanced Genetic Sciences Inc. (AGS), at its meeting on 1 June.

The Lindow experiment was blocked by Judge John Sirica in response to a motion for a preliminary injunction filed by anti-genetic-engineering activist Jeremy Rifkin. The judge's ruling also barred RAC from approving any other experiments involving release of recombinant organisms to the environment until a full hearing can be held on Rifkin's claim that RAC must prepare an environmental impact statement before proceeding in this area. According to NIH officials, preparation of such a statement would require at least a year. (On 25 May, the Court of Appeals in Washington upheld Sirica's preliminary injunction against the Lindow experiment.)

Sirica's decision specifically exempted commercial proposals, however, which are not in any case legally bound by RAC decisions, although companies have been submitting proposals to RAC for review in keeping with the standard practice of voluntary compliance with the RAC guidelines.

At last Friday's meeting, Rifkin asked the committee not to establish a "double standard" that would give private companies an unfair advantage over federally-supported research, which is legally bound by RAC decisions. Robert Mitchell, chairman of the committee, responded that he had ruled that RAC would continue to consider commercial proposals, noting that they were specifically exempted from the court's decisions, which in any case applied only to NIH administration, not the RAC itself, which is legally an advisory body to NIH.

RAC took noticeably greater care this time to spell out its reasons for believing that the ice-nucleating experiments do not pose a risk to the environment. Dr Anne Vidaver, a plant pathologist from the University of Nebraska and a consultant on both the Lindow and the AGS proposals, noted that the modified bacteria to be used in the trials — so-called INA-, for ice-nucleating activity minus — already exists in nature along with the INA+. The INA- are lacking a gene responsible for the ice-nucleating protein, a protein believed to mediate frost damage to plants at temperatures a few degrees below freezing. Vidaver said that in natural populations of

the bacteria (a variety of *Pseudomonas syringae*) as much as 80 per cent may be INA-. She said that apparently the only reason for using recombinant DNA techniques for producing the INA-, rather than simply culturing naturally-occurring ones, is that natural organisms are not patentable.

Vidaver recommended several modifications in the AGS proposal: an increase in the frequency of monitoring of the field plot, the withholding of approval of continuing experiments involving other, unspecified varieties of INA- *P. syringae* and a limit of the tests initially to one growing season, rather than the three requested. If preliminary data show no problems, she said, approval for additional tests should be given at that time.

Telecommunications

Luxembourg goes for cable

TINY Luxembourg has thrown a spanner into the comfortable world of European telecommunications. In particular, Luxembourg has deeply offended the government of France by announcing that it plans to license a commercial consortium to launch communications satellites capable of delivering television broadcasts to cable networks throughout Europe.

Among European governments, France is the most deeply offended because France has been relying on Radio-Tele-Luxembourg, the commercial radio and television company based in Luxembourg, to pay towards the cost of the direct broadcasting satellites which France plans to launch in the next few years. Although Luxembourg, like other members of the International Telecommunications Union, has been allotted space in geosynchronous orbit for satellites capable of broadcasting signals powerful enough to reach individual receivers, the Grand Duchy appears for the present not to plan to take up this option.

Instead, the government of Luxembourg is planning to license the Société Luxembourgeoise des Satellites (SLS) to launch less powerful telecommunications satellites. The company, whose chairman is Mr Corneille Bruck, the president of the state savings bank of Luxembourg, will eventually operate under the name of Coronet.

For Luxembourg, which relies on Radio-Tele-Luxembourg for a substantial fraction of its revenue, the development is something of a surprise. While some observers consider that the move spells an end to the cosy relationship, some say identity, between the government and

At its 1 June meeting, the committee also approved a proposal from Cetus Madison for testing an undisclosed plant variety (the decision was made at a closed session of the committee) and adopted a set of "points to consider" for researchers preparing future proposals for plant field trials. The committee noted that past submissions have often been complete, necessitating their return for additional information. The list of points calls for proposals to include details on specific cultivars, vectors (including documentation that the vectors will not acquire pathogenic potential), data from greenhouse studies and monitoring procedures.

The committee also approved lowering containment of a previously approved toxin-cloning experiment from P4 to P3, or to P2 if the clones prove to be of low toxicity. The proposal, submitted by Dr Alison O'Brien of the Uniformed Services University of the Health Sciences, a part of the Department of Defense, involves cloning a shigella-like toxin in *E. coli*. The aim is the development of a vaccine against dysentery.

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Radio-Tele-Luxembourg, others consider that the government may simply be insuring against the chance that direct broadcasting satellites will be unprofitable.

French uneasiness about the new plan seems to centre on the threat it poses to the commercial viability of the French direct broadcasting satellites. There is also some uneasiness within the European Telecommunications Satellite Organization (EUTELSAT), the European equivalent of INTELSAT. A meeting of the organization, on which national telecommunications authorities, mostly nationalized, are represented, held in Paris towards the end of May, shrank from condemning Luxembourg for a divisive move and instead urged on all its members the need not to take part in competitive international telecommunications services. Luxembourg insists that the plan for Coronet, aimed at delivering broadcast signals only to the operators of cable networks, escapes that criticism and so should be free from constraint.

However this may be, the row between Luxembourg and its larger neighbours has vividly drawn attention to three points. First, Luxembourg is determined to remain a principal exporter of broadcast signals even in the new technological age. Second, national susceptibilities as to who should be free to broadcast to whom are as fierce as they have ever been. Third, the commercial future of direct broadcasting satellites, capable of reaching individual homes, seems to be clouded by Coronet's demonstration that low-powered satellites coupled to cable systems can be built quickly and cheaply. □