

Genetic engineering and the public

Public accountability in science emerges as an important theme in the long-awaited parliamentary report on genetic manipulation.

Tabled in federal parliament last March, the report, by the House of Representatives Standing Committee on Industry, Science and Technology, concluded that, although some applications entailed risks, the potential economic, environmental and health benefits of gene manipulation research made its pursuit worth while.

The Committee considered the existing system of regulation of genetic engineering work comprehensive and adequate as a voluntary code of practice. However, it was concerned that the regulations lacked legal force, and recommended a mandatory system of approval and monitoring.

At present, the guidelines of the Genetic Manipulation Advisory Committee (GMAC) contain no requirement for the public release of information about proposed genetic engineering experiments and releases of genetically modified organisms to the environment. While recognising the need for commercial confidentiality in some instances, the Committee recommended that information about experiments or releases under consideration by an approving authority should be publicly available.

Those seeking approval for a research project or a permit for release could request that certain sections of the information provided to the approving authority be kept confidential. In turn, members of the public would have a right of appeal against non-disclosure of information designated 'commercial in confidence'. In addition, researchers applying for grants from publicly funded bodies such as the Australian Research Council would be required to submit a 'worst case scenario' describing the most adverse side effects that might follow from an experiment or environmental release.

A second aspect of the public's right to know is helping the community understand just what genetic engineering entails. The report recognises the ethical, philosophical and environmental objections put forward to genetic

engineering. Some objections — such as the Anglican Church's concern about 'the mechanistic world view' underlying biotechnology — are well defined and specific. Others received by the Standing Committee, however, are more vague, including a generalised fear that an uncontrollable 'Frankenstein's monster' will emerge and wreak havoc. Concerns of the latter kind probably owe as much to a lack of understanding about genetic engineering as anything else.

Here too, the Committee believes, the work needs to be made more accountable — by making it easier to understand. A questionnaire on the community's concern about genetic manipulation has been incorporated in CSIRO's travelling exhibition, 'Genetic Engineering — Will Pigs Fly?', and it is fair to say the early results are likely to make researchers sit up and take notice.

With the aid of an interactive video screen, people attending the exhibition are asked to consider some arguments generally for and against aspects of genetic engineering and then vote 'Yes' or 'No' on a number of questions. After exhibitions in South Australia, Victoria, the A.C.T., Queensland and New South Wales, and responses from more than 3500 visitors, the running was clearly with the negative. Asked 'Is it right to interfere with Nature?', a majority — 58% — said no. When asked if the risk of genetic engineering to the environment is too great, 62% said yes. When asked if companies should

be allowed to exploit it, 59% said no. But when asked if genetic engineering should be used on humans, 52% said yes.

The message — if those respondents are a fair representation — would appear to be that the public doesn't consider scientific and economic interests enough to justify a powerful new technology like genetic manipulation. Yet if that technology is linked to a humanitarian concern, such as saving lives, then public opinion quickly shifts in favour of the technology.

Half the questionnaire's respondents, when asked who should control genetic engineering, said 'the community' ought to — almost twice the vote for scientific control, three times the vote for government control and five times the vote for company control.

Two of the parliamentary Committee's recommendations are aimed at public information: a specific appropriation for CSIRO to undertake campaigns like the 'Will Pigs Fly' exhibition; and funding for GMAC and the proposed release authority to undertake activities to keep the public informed about their work and the scientific projects under consideration.

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'Genetic Manipulation: the Threat or the Glory?' Report of the House of Representatives Standing Committee on Industry, Science and Technology. (AGPS: Canberra 1992.)

