US research townships

Cambridge votes non-nuclear

Cambridge, Massachusetts

ALTHOUGH the Nuclear Free Cambridge Act was defeated by Cambridge residents in the 8 November election, anti-nuclear groups in at least 40 other US cities and towns are pressing for city ordinances or binding referenda that will declare them "nuclear-free zones". The proposed laws would prohibit research and development on nuclear weapons, or their presence, within city limits, with fines or imprisonment for noncompliance. The issues raised in the controversy over the Cambridge statute will be repeated in the coming months in communities across the country.

Some twenty-nine towns have already declared themselves nuclear-free, but these ordinances have been largely symbolic, since the communities house neither bombs nor defence contractors. Cambridge was the first city where creation of a nuclear-free zone would actually have halted nuclear weapons research; the chief target of the law was the Charles Stark Draper Laboratory, a major defence contractor that designs missile guidance systems.

Despite the strength of the anti-nuclear weapons movement in Cambridge (an earlier non-binding referendum passed with 74 per cent of the vote), voters were apparently persuaded by claims that the potental consequences for freedom of research and local employment outweighed the statute's emotional and symbolic appeal. The 60 to 40 per cent final count was a victory for a group of academics, labour officials and business people known as Citizens Against Research Bans (CARB), who were joined in their opposition by the presidents of both Harvard University and Massachusetts Institute of Technology (MIT) and by the Draper Laboratory — which hired a West Coast public relations expert to direct the campaign. Contributions from the defence industry were a major influence in the campaign; supporters of the act estimate that they were outspent 20 to 1 by their opponents.

According to Hal S. Scott, a law professor at Harvard and a member of CARB, the wording of the statute was so broad and so vague that a court challenge would have nullified it on the grounds that it infringed rights under the First Amendment to freedom of speech. Nonetheless, the law would have had a "chilling effect" on a variety of research projects and on the willingness of new high-tech companies to set up shop in Cambridge. The most worrying point, said Scott, was that Cambridge residents would have had the right to sue alleged violators for damages or to force a halt to their work. The law could also have set a precedent for bans on other types of research, Scott said.

Even so, Mobilization for Survival, the anti-nuclear group that drew up the statute, believes that constitutional arguments against the act were a "smokescreen" for efforts to preserve lucrative defence contracts. Although admitting that the language of the statute could be "firmed up", it insists that the right to conduct basic research would be preserved. Despite its defeat, the group is delighted with the national press coverage. It claims that its campaign has focused the anti-nuclear movement's efforts to educate the public, and demonstrated that an individual community can "take on the arms industry".

Opponents of nuclear weapons have nevertheless introduced a new element into future nuclear-free statutes, so that towns without defence industries can exert more than a symbolic effect. Divestment clauses now appear in a number of the proposed laws which would require the sale of any investments held by the town in industries that conduct nuclear weapons work.

In the next campaign likely to make headlines, a proposal very similar to the Cambridge statute — but including a divestment clause — has been placed on the ballot in the city of Santa Barbara, California. The city is home to several defence contractors, which are likely to offer stiff opposition before the vote due next year. Supporters say they are confident that if it passes, the law will survive a constitutional challenge.

Christopher Earl

Bio-patent suit

Washington

A LAWSUIT charging two genetic engineering firms, Genentech and Chiron, with infringing a patent for the production of blood-clotting factor VIII was filed two weeks ago by Scripps Clinic and Research Foundation and Revlon, Inc.

Factor VIII is the main plasma fraction used to treat haemophiliacs. It is currently produced by fractionating blood plasma obtained from human donors, a procedure that carries a risk of exposing the haemophiliac patient to hepatitis and, according to recent evidence, acquired

immune deficiency syndrome (AIDS). The patented process, which arose from the work of two Scripps researchers, Theodore Zimmerman and Carol Fulcher, uses monoclonal antibodies to produce pure factor VIII-C.

Ernest Lipscomb, Revlon's director of patents, said last week that the company is examining the possibility of taking similar action against several other companies as well. Revlon, which holds exclusive licence on the patent, currently markets factor VIII derived from human plasma. Neither Genentech nor Chiron has a similar product on the market.

Stephen Budiansky

Medical ethics

Rules for fetal research adopted

Canberra

THE National Health and Medical Research Council (NH&MRC) has taken a bold step in adopting a recommendation by its new Medical Research Ethics Committee to approve experimentation on a "previable fetus" — defined as one that "has not attained a gestational age of 20 weeks and does not exceed 400 grams in weight". In a report on ethics involving the human fetus and human fetal tissue, the ethics committee stipulated that the fetus should be available for research "only as a result of separation by natural processes or by lawful means", and that "dissection of the fetus should not be carried out while a heartbeat is still apparent or there are other obvious signs of life". These stipulations are in addition to the general NH&MRC guidelines for human experimentation.

Transplantation and tissue culture were unexpectedly seen to be in a special category, requiring specific consent by the mother and, where practicable, the father, for the somewhat obscure reason that the parents might be concerned to "lose control of their genetic material and its potential". In addition, the relevant institution must keep a complete record of all attempts to transplant human fetal tissue. The transplantation of fetal pancreatic islets of Langerhans cells being developed in Australia as a possible treatment for diabetes would be caught by the new rules.

The report was careful to stress that the responsibilities of clinicians and of research workers should be clearly separated and not vested in the same individual. Thus the clinician should have no interest in the outcome of research nor in the suitability of fetal tissue for it, while the research worker should not be responsible for deciding, for example, whether the fetus is "previable".

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