

## Stem-cell research and the US Congress

**US Senator Arlen Specter is providing much-needed leadership in Washington on the volatile issue of stem-cell research, as the Clinton administration keeps a safe distance.**

The US Senate is considering the circumstances under which federal funds can be used for research on embryonic stem cells, or to extract such cells from human embryos. During the debate, opponents of federal funding for such research have suggested that researchers turn their attention instead to adult stem cells (see page 6). But the adult-derived cells cannot yet be directed into as many different cell types as can embryonic stem cells, and are less inclined to replicate. As Senator Arlen Specter (Republican, Pennsylvania) has pointed out, it would be short-sighted for the Congress to close the door on publicly funded embryonic stem-cell research before it can be more fully explored.

The prospect of such research has set off alarm bells in the powerful anti-abortion movement in the United States. Specter's track record in opposing abortion therefore strengthens his hand in proposing legislation that would authorize the federal government to fund both the use and derivation of embryonic stem cells.

Last week, during hearings of the appropriations subcommittee that he chairs, Specter took testimony from opponents of such funding, but quickly rejected several of their arguments. Embryos left over from *in vitro* fertilization attempts should not be regarded as potential human beings, he argued, as the embryos would only be discarded — as is current practice — if they were not used in research. The embryonic stem cells appear to be more versatile than their adult counterparts, Specter added. He also chastised Senator Sam Brownback (Republican, Kansas) for attempting to equate stem-cell extraction and research with Nazi experiments.

Specter's sponsorship of the legislation means that it has a chance of passing, at least in the Senate. Its progress to date reflects his strong feelings on the issue, as well as some political dexterity. He had initially attached the legislation to an appropriations bill last year. Since its inclusion was likely to bog down the budget process, Trent Lott (Republican, Mississippi), the Senate majority leader, reached a deal: if Specter removed the stem-cell provision from the budget bill, Lott promised to allow his stem-cell bill onto the Senate floor.

The bill faces an uncertain fate there later this month. But other anti-abortionists in the Senate have indicated they will support it. Even if the bill stalls in the Senate — or, as is more likely, gets lost in the House of Representatives — its progress could prove helpful. In June, the National Institutes of Health plans to implement guidelines to allow experimentation with stem cells, but not their extraction, using public funds. A Senate victory for the Specter bill will help to protect these guidelines from an inevitable challenge in the Congress.

The debate has also illustrated the pressing need for a federal policy on stem cells. Both supporters and opponents of stem-cell research have pointed out that such research is being done, without regulation, in the private sector. The administration has been largely silent on this issue since last May, when the National Bioethics Advisory Commission recommended that the government fund both embryonic stem-cell extraction and research. This silence reflected badly on the influence of the commission, and was seen in some quarters as craven. But as Specter attempts to steer the issue through the Congress, it may prove to have been judicious. ■

## Agricultural research whistling in the dark

**Publicly funded agricultural research continues to languish in the United States, despite attempts for its stronger support.**

An evaluation published this week by the National Academy of Sciences (see page 9) is only the latest in a long line of reports highlighting the inadequate level of support for properly reviewed, basic agricultural research in the United States. The academy says that funding for the National Research Initiative at the US Department of Agriculture (USDA), which supports competitively reviewed university research grants, should be expanded from this year's level of \$119 million to \$500 million.

The programme should be elevated in status within the department, the academy panel suggests. Grant awards should be increased to a realistic level and a 19 per cent ceiling on research overhead costs — which serves only to deter some researchers from applying for grants at all — should be removed. An outside committee of advisers should guide the programme, and USDA should appoint a permanent chief scientist to replace the current part-time arrangement.

All of this may be laudable. But it is doubtful if those in control of the purse-strings at USDA are paying much attention. Domestic and

international programmes in agricultural research are being widely neglected, despite their rich scientific potential. In the United States, as in most industrialized countries, the government's budget for agriculture is under pressure. Repeated efforts to bolster investment in research have fallen victim to this pressure. The result has been little public investment in plant genomics, for example, to the detriment of both farmers and consumers.

The only way forward is to strengthen the scientific activities at USDA itself. This is recognized by the administration and the Senate, but not by the agriculture appropriations subcommittee of the House of Representatives. Last year, the Clinton administration asked for \$200 million for USDA's National Research Initiative and obtained \$119 million, not the \$500 million envisaged when the initiative was launched in 1991. This year the administration is asking for only \$150 million, indicating that its ambitions for the initiative are on hold. Next year brings a new administration, a new Congress and, hopefully, a more constructive approach to agricultural research. ■