

Come veto or high water

The obduracy of the White House will slow the progress of stem-cell research in the United States — just as Europe agrees to move forward with it.

President Bush's decision to veto legislation that would allow the federal government to support human embryonic stem-cell research is a monumental error. The decision contrasts with a broadly satisfactory compromise reached by the European Union (EU), which opens the way for more funding of such research across Europe (see page 335).

Particularly in the light of the EU decision, the first veto of the Bush presidency will enrage US biologists. But it should not be allowed to obscure the fact that the public debate over the ethics of this research is being won. Over the past two years, the campaign to win public support for stem-cell research in the United States has been successful. Some two-thirds of the American public now support the work. The bill that Bush vetoed was passed by healthy majorities in both houses of Congress, as more and more conservative law-makers have come round to the idea that the work should proceed under the auspices of the National Institutes of Health.

In Brussels, a compromise was reached on 24 July whereby the EU will stop paying for the derivation of stem cells from embryos, but will support research using these cells. With customary opacity, the 25 research ministers did not cast a vote at the meeting, but instead hatched a practical and welcome deal that will allow this important work to proceed.

In the United States, however, there is no prospect of even the new Congress elected this November mustering the two-thirds majority needed to overturn the veto. It will be 2009 at the earliest before a president willing to support this work enters the White House — eight long years after the current Bush policy first came into effect. The scientific opportunities squandered in that time are irretrievable; the years of human life and health lost, unknowable.

The end of the line

The bill passed by Congress would have overturned the policy, announced by the president on 9 August 2001, that allows federally funded research to be done only on embryonic stem-cell lines created before that date. Bush said at the time that more than 60 such lines were available. But many of those lines proved impossible to grow, and only 21 lines are ready today for federally funded research.

Some of these are of limited use in basic research because they have accumulated genetic mutations over time, and they are all less than ideal for development into clinical treatments because mouse cells and serum were used to grow them, raising the remote but real possibility that they may carry disease. Access to additional lines containing abnormalities associated with diseases, such as Huntington's, would allow the study of how the disease occurs and, perhaps, lead to therapies not based on cell or tissue transplantation.

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It would only permit these embryos to be used in research after their parents had independently decided that they did not want to implant them. According to a RAND Corporation study of some 400,000 embryos in storage, parents have consented to donate about 11,000 of these for research, from which perhaps 275 new lines could be derived (D. I. Hoffman *et al. Fertil. Steril.* **79**, 1063–1069; 2003).

But it is not just an order-of-magnitude increase in the number of lines — and the power of the federal purse to finance their exploitation — that the law would have brought to bear. It would have brought the daylight, research coordination and ethical oversight that accompany a much wider federal presence in the field.

Some state governments have stepped into the funding breach: the day after the Bush veto, California governor Arnold Schwarzenegger announced that he would provide \$150 million to jump-start California's \$3-billion stem-cell initiative. But a patchwork of state, university and foundation-financed activities is no substitute for a properly coordinated effort led by the National Institutes of Health. Additionally, precious time, energy and money is being wasted building separate facilities and purchasing duplicative equipment for work on stem-cell lines that have not been approved for federal funding.

It can be argued in good faith that not a single embryo should be destroyed in the name of medical progress. However, Bush has done nothing to prevent the wholesale destruction of embryos in *in vitro* fertilization clinics. And the arguments he used in a speech announcing the veto were disingenuous. If the bill became law, he said, "American taxpayers would, for the first time in our history, be compelled to fund the deliberate destruction of human embryos. And I'm not going to allow it."

This is patently untrue. The vetoed bill would not have allowed federal funding for the derivation of human embryonic stem cells from leftover embryos at fertility clinics, and the attendant destruction of the embryos. It simply allowed taxpayer-funded research on the stem cells thus derived. The derivation itself would still need to be financed with non-federal funds.

This may seem like a subtle point, but it exactly this kind of compromise that has forged America's uneasy but workable abortion policy: abortions are legal, but in no case are taxpayers required to see their dollars fund them. It may be tenable to argue that dissenters should not be asked to finance a practice that they find morally unacceptable. What is not acceptable is for the president to use false pretences to stand in the way of a compromise that the Congress has sensibly endorsed. ■

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