

The long and winding road

German scientists must persevere in the stem-cell debate, despite the occasional setback.

The German media last week trumpeted the claim that a patient in Dusseldorf with terminal heart failure has been successfully treated with adult stem cells from his own bone marrow. Although clinical researchers know that little can be learnt from a single case study, the result has already been unreasonably exploited by opponents of human embryonic stem-cell research.

The finding was published in the September issue of a German-language medical journal (M. Brehm and B. E. Strauer *Deut. Med. Wochenschr.* **132**, 1944–1948; 2007). Opponents of human embryonic stem-cell research, such as Julia Klöckner, a Christian Democrat who chairs a stem-cell committee in the German parliament, leapt on the result, claiming that the clinical success of using adult stem cells renders research on embryonic stem cells less necessary than before. They make this point just as the parliament prepares to consider whether it should modify the country's strict stem-cell laws.

The majority of scientists agree that work on both adult and embryonic sources of stem cells should run in parallel until much more is understood about their biology. But Germany is out of step with most European countries in permitting research only on human embryonic stem-cell lines that were created before January 2002, when regulations were first laid down. This situation has caused ambiguity in collaborative European Union (EU) research programmes: some partners can use new lines, but German participants could be put in jail if they did so themselves.

The past year has seen a significant shift in attitudes, however. Last November, Germany's main research-funding agency, the DFG, set the ball rolling, saying it believed that it was now time to eliminate the cut-off date. Respecting the moral dimension to which Germans are particularly sensitive, it did not suggest that German scientists should be allowed to derive their own embryonic stem-cell lines, as this involves destroying human embryos.

Response to the DFG's report has been broadly positive. A few months ago a majority in the National Ethics Council, which advises

chancellor Angela Merkel on bioethics, supported bringing the cut-off date forward to 2007. This would allow Germans to use all the cell lines involved in current EU projects. A parliamentary hearing in May also indicated that politicians of various hues would support such a relaxation in the rules. There is even wider support for any breach of the regulations to be regarded as a civil, rather than a criminal, matter.

Scientists helped to prepare the ground for this shift in opinion by patiently and thoroughly discussing with politicians and others the complex scientific issues involved. But opponents of human embryonic stem-cell research have also stepped up their campaigns. They see the recent success with adult cells as a vindication. Yet on the basis of one patient's history, it isn't even known if the recovery can be attributed to stem-cell therapy. Political leaders should be wary of taking such results at face value — especially when the stakes for human health are so high.

The reception afforded the Dusseldorf patient has disillusioned some German scientists, who feel that their painstaking efforts to get their case across have been undermined and devalued. But they should continue to promote their position whenever they can — and should adapt their strategy to match the situation in which they find themselves.

Public opinion is a fickle thing. It will not always be easy for the ad hoc group of biologists who have been working on the stem-cell issue in Germany to react to fast-moving events and make their voices clearly heard. There is no established national scientific academy in Germany to take the lead on the issue and the societies representing biologists have not quite been able to find their voice. Despite all this, researchers should persevere in their efforts to participate in — and, indeed, to lead — the stem-cell debate at every level. Eventually, their arguments will prevail. ■

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Genome abuse

Citizens are right to resist government pressure to expand population DNA databases.

Terrorism, crime and illegal immigration are fuelling state surveillance, and are being used to justify it to the public, who too often seem asleep to the risks of abuse. This is particularly true of national DNA databases, where in several countries there is an insidious creep to log not only serious offenders but also other classes of the population, such as immigrants and minor offenders.

So it was refreshing to see resistance articulated this month in France and the United Kingdom. Prominent French scientists led

public protests against a government bill to use DNA tests on immigrants to see whether they are related to family members already resident in the country. Such protests might seem an overreaction. Many countries already practise DNA testing of immigrants, with varying rules for use. In 1985, the first use of DNA fingerprinting for legal purposes led to a Ghanaian boy being allowed to join his family in the United Kingdom after he proved kinship (A. J. Jeffreys *et al.* *Nature* **317**, 818–819; 1985).

But the objectors are correct to argue that the French proposal, far from promoting greater fairness, is aimed at erecting another obstacle to immigration. The scientific opposition is also linked to a strong bioethical and legal tradition in France of the concept of the family as a social unit, not reduced to mere biological ties, reflecting the reality that (as in all countries) many children are not the biological offspring of