

**UNLIKELY PROTECTOR**  
Prion proteins that can cause CJD have a vital role in the nervous system.  
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S. GSCHMEISSNER/SPL

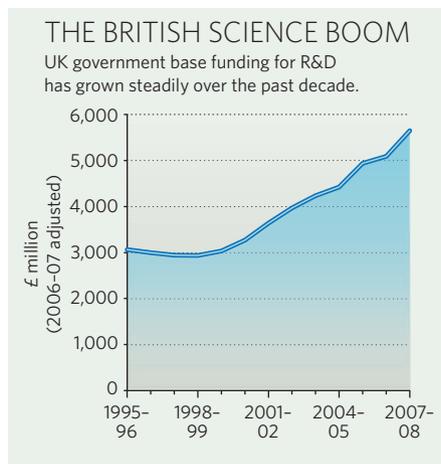
SOURCE: BIS cuts will bite within months. The current Labour government has delayed drawing up its next three-year budget until after this summer's election, but a pre-budget report released on 9 December 2009 called for "efficiency savings" in several sectors, including research. In late December, Peter Mandelson, the UK minister for business, innovation and skills, warned that universities would lose £950 million in government support between 2010 and 2013 — but he emphasized that the reduction was less than 5% of the total expected over that period.

Many universities, including leading research institutions such as Imperial and UCL, are already tightening their belts in preparation. Between July and September 2009, Imperial cut 48 jobs from its faculty of medicine; roughly half were academic posts. And on 14 January, UCL announced that it hopes to trim £3 million — 6% of staff costs — from its faculty of life sciences. Because much of Britain's research funding is distributed according to a formula based on a university's size and quality, smaller and less-research-intensive universities are expected to be hit harder.

Research councils — the government funding bodies that provide some £3 billion annually in grants — are also likely to feel the pinch. For the past decade, research-council funding has increased steadily. But at a recent debate on science in central London, none of the research ministers of the nation's three major political parties could promise that funding would continue at present levels.

One council in particular is already acutely aware of the recession. Since its creation in 2007, the Science and Technology Facilities Council (STFC), which distributes most of Britain's physics and astronomy grants, has been chronically short of cash. Battered by a falling pound, which raises the cost of overseas projects, and a flat budget that has never met its needs, the STFC is facing a £40-million spending deficit, which has forced it to make cuts to research grants. The cuts have also caused the council to rethink its international commitments: it is now planning to withdraw from the Gemini project, which operates twin telescopes in Chile and Hawaii (see *Nature* 462, 396; 2009).

John Womersley, the STFC's director for scientific programmes, sees little relief in sight. The only sure thing, Womersley says, is that after the election ministers will be fighting over spending on big government items such as defence, health and education. "There's likely to be a tough scramble over how the budget will be allocated," he says. "The question is: is science special?" If research funding is to be



protected, Womersley believes, scientists will have to present a unified case to all political parties. Some politicians are already talking about cutting back on fundamental research that lacks an obvious application, he says. It will be up to scientists to show the relevance of their work, either by providing a potential link to an area of economic activity or by showing its educational benefits.

This emphasis on the broader impact of research is also expected to be a key part of the Research Excellence Framework, a system that will be used to assess university research quality to determine funding levels (see *Nature* 463, 291; 2010).

But some researchers are uneasy about making such justifications. Too much emphasis is already being placed on publication rates and economic benefit, says Robert May, a zoologist at the University of Oxford and a former government chief scientific adviser. "I don't think Watson and Crick could have existed under the current regime," he adds.

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Back in London, Aeppli is preparing the nanotechnology centre as best he can for the difficult times ahead. He is encouraging his staff to bring in grants from non-governmental sources, including charities and the European Union. He is also steering the centre's research agenda towards issues such as climate and health, areas he believes the government will fund to help improve the economy in the long term.

Balancing those projects against fundamental science will be tricky, he admits, but he believes the centre will survive and could even prosper in the difficult years ahead. "We've been planning for this downturn for a while," he says. "I think that if we're working in the right areas, there will be growth." ■

**Geoff Brumfiel**

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## Stem-cell line given the nod

US stem-cell researchers had reason to celebrate last week. The uncertain fate of human embryonic stem-cell lines from the George W. Bush era became a bit clearer as the National Institutes of Health (NIH) moved to approve one of the lines most widely used during the past decade.

Last July, after President Barack Obama overturned his predecessor's restrictive stem-cell policy, the NIH announced new rules on using human embryonic stem cells in federally funded research. Since then, the number of available lines on the government's stem-cell registry has already reached 42 — double that of Bush's day — but none of the 21 lines approved under Bush has yet received the go-ahead under the new rules.

To become eligible for funding, cell lines have to be reviewed on a case-by-case basis to ensure that they were derived from excess embryos used for *in vitro* fertilization and were donated voluntarily, without inducement. Notably, researchers hoping to apply for grants using two Bush-era lines from the WiCell Research Institute in Madison, Wisconsin — H1 and H9, which account for some 70% of stem-cell shipments from the National Stem Cell Bank — had been left in limbo for the past six months.

"Once we learned about not being able to use the cell lines, there was a lot of uncertainty about what to do," says Thomas Zwaka, a biologist at Baylor College of Medicine in Houston, Texas.

On 22 January, the advisory committee to NIH director Francis Collins told him to give H1 the thumbs up, but said the line's usage should be restricted according to the consent forms signed by the embryo donors in 1998. The NIH generally allows stem cells to be combined with the cells of non-primate animals, but donors of the H1 cells signed a form that indicated that cells would not be mixed with those of any other embryo, human or animal. Collins says the general policy for all lines will be to post the exact language of consent forms on the stem-cell registry.

Janet Kelly, a spokeswoman for WiCell, says the institute plans to submit an application for H9, along with three other lines, as soon as possible. ■

Brendan Borrell