

UK budget puts faith in biomedical sector

The UK budget for 2009, made public in April, revealed the full extent of the nation's worsening finances. But, amongst all the doom and gloom surrounding its release, there were a few bright spots for the life science sector.

These include a new £750 million (\$1.1 billion) Strategic Investment Fund to provide financial support for emerging technologies in areas such as biotechnology and a commitment to examine the level of taxation on innovative activity—including intellectual property.

They represent some of the latest in a series of measures designed to realign the UK economy toward potential high-growth areas such as life sciences. Another example in April was the formal establishment of the government's new Office for Life Sciences (OLS). Announced back in January, the OLS will now coordinate efforts to build a sustainable and integrated life sciences industry in the UK.

Of the £750 million, £50 million will go to the Technology Strategy Board, the government's lead agency for business innovation, for supporting areas with high potential to drive future growth, including life sciences. Another £10 million will go to UK Trade & Investment to support exporters.

In consultation with industry, the government will explore the potential for changing the tax system to stimulate innovation and to encourage global firms to conduct more of their research activities in the UK. It has pledged to report its findings by November.

More measures were announced at the beginning of May, as part of the government's response to the recommendations made in the *Review and Refresh of Bioscience 2015* report. Produced by the Bioscience Innovation & Growth Team, comprising representatives from government and the life science industry, this report contained proposals and ideas for enhancing the future competitiveness of the UK medical bioscience sector.

The measures announced by the government include developing a new stratified disease strategy in conjunction with the life science industry to help design drugs targeted at specific sections of the population. It also wants to double the number of participants in clinical studies over the next five years.

But it rejected finance proposals made in the report, which included establishing a high-tech innovation fund and making changes to the R&D tax credits. This move led to criticism from the UK BioIndustry Association, which stressed that small bioscience companies are finding it almost impossible to raise funds.

"The government has failed to address the single biggest problem that the life sciences sector is facing today, and that is access to finance," Aisling Burnand, chief executive of the UK BioIndustry Association, told *Nature Medicine*. "If the government wants to fulfill this vision of the importance of life sciences for the country in the future, then it will require some financial support."

Jon Evans, Chichester, UK

Mind the skills gap

The Biotechnology and Biological Sciences Research Council (BBSRC), the UK funding agency for life science research, has launched a consultation to identify skills and expertise that are in danger of being lost from the nation's bioscience research community.

The consultation will involve the UK's bioscience societies and industrial associations, who will be asked to highlight vulnerable areas of expertise. The findings will guide investments needed to fill these skills gaps.

Such gaps have numerous possible causes, says Ian Lyne, who heads the BBSRC's policy development in relation to postgraduate training and research careers. "There may be issues related to the attractiveness of careers in specific areas of science. Individuals may not be aware of the opportunities and so not explore them," he told *Nature Medicine*.

One skill gap that the BBSRC is already trying to fill involves animal experiments, in particular using mammals as models for human physiology. In 2007, the agency set up a capacity-building program in integrated mammalian biology, funded by numerous government agencies and the British Pharmacological Society, to address this issue.

The program, which received a further £12.3 million (\$19 million) of funding in April 2009, aims to equip researchers with skills relating to topics such as best practice for using animals in research and high-quality experimental design.

But the consultation will focus more on niche specialist areas, explains Lyne. Areas that have already been highlighted include certain aspects of applied agricultural sciences and the need for molecular biology researchers to have high levels of mathematical ability.

Jon Evans, Chichester, UK

NIH draft seen as 'working compromise'

Draft guidelines on stem cell funding issued by the US National Institutes of Health (NIH) in mid-April might block federal funding for experiments that rely on certain commonly used stem cell lines.

"I think our main concern is that some perfectly valid lines don't get ruled out on a technicality," says Geoff Lomax, a lead member of the Interstate Alliance on Stem Cell Research (IASCR), an organization established in 2007 to promote stem cell research collaboration.

The proposed guidelines would allow funding only for research using stem cell lines derived from unused embryos originally created for *in vitro* fertilization. They also require that the donors of those embryos give informed consent for their use. However, many of the lines commonly used today—including some of the lines allowed under the strict Bush administration guidelines—technically don't satisfy these requirements.

The IASCR along with the International Society for Stem Cell Research, the Center for Genetics and Society and the Harvard Stem Cell Institute have requested that the NIH incorporate a clause such that these stem cell lines would be grandfathered in.

The proposed guidelines also deny support for parthenogenesis and somatic cell nuclear transfer (SCNT). SCNT is used in animal research, but no known human stem cell lines have been developed from the technology.

"Some don't like the idea that SCNT has been cut—presumably on the rationale that it could be used for cloning humans," says Larry Goldstein, director of the University of California–San Diego stem cell program. "But [it's] a hypothetical argument at the moment."

The California Institute for Regenerative Medicine and Harvard Stem Cell Institute both offer funding for research involving parthenogenesis and SCNT.

"After meeting with the NIH, the impression many of us came away with was that these guidelines are seen as a working compromise that has room for change as science and political winds shift," says Lomax. "The emphasis is on getting something to work now, and these guidelines are a good start."

The commenting period for the guidelines closed on 26 May. The NIH will release its final version of the guidelines on or before 7 July.

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