

PUBLIC DIALOGUE ON STEM CELL RESEARCH

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As US President Barack Obama ends restrictions on federal funding for new stem cell research, members of the largest ever public dialogue on stem cell research in the UK have been revealing their thoughts on the subject.

Results of the public dialogue, which involved workshops last summer in London, Cardiff, Bristol, Newcastle and Edinburgh, reveal high levels of public support for stem cell science and technology. The public is also keen for the UK to maintain a technological and regulatory lead in stem cell research.

Days after Barack Obama became President in January, the US Food and Drug Administration gave the go-ahead for the world's first study on human embryonic stem cell therapy, which will involve a clinical trial of a handful of patients paralysed due to spinal cord injury. The US biotech company behind the newly approved clinical trial, Geron Corporation, has welcomed the approval, which follows its development of stem cell treatment for spinal cord injury. The company had submitted a 21,000 page application which had been under consideration for several months.

Now Mr Obama has lifted restrictions on federal funding for research on new stem cell lines, pledging to 'vigorously support' new research. Using embryonic stem cells in research is controversial, but the cells have the ability to turn into any of the body's 200 cell types.

However, scientists say one embryo, donated through IVF treatment, can provide a limitless supply because the cell lines can be grown indefinitely.

In Britain, the public dialogue exercise, which was funded by the Sciencewise Expert Resource Centre and commissioned by the Medical Research Council (MRC) and Biotechnology and Biological Sciences Research Council (BBSRC), revealed that both professionals and the public valued investment in basic research that could look at the development of treatments. As well as 200 members of the public, nearly 50 stakeholders from fields such as science, medicine, industry, ethics and religion took part.

Several members of the public in feedback after the sessions expressed strong support for giving priority to serious diseases where current treatments are limited. Some of those who took part did so, they explained, because a loved one was suffering from a disease for which stem cell research might hold out the prospect of a cure. One woman said: "My husband has MS and I am interested in future medical advancement." Another woman added: "I am extremely interested in stem cell research – my mother has Alzheimer's – and it is comforting to think that this kind of research will, eventually, produce a cure."

However, support for translating research into treatments was conditional on ensuring that public funding was focused on 'serious' medical conditions rather than cosmetic

uses. The involvement of the private sector also raised some concerns, with many feeling that for public trust to be maintained, it was important that future treatments should reflect public rather than solely commercial interests.

The public would also like to see more emphasis on preventative medicine, through actual cures as a result of research, and individuals taking control of their own health. While some of the participants expressed concerns about using embryos, many said they had been reassured by the workshops with scientists.

There was also a general welcome for an informed, clear debate, rather than reliance on the media for news of developments. One person emphasised: "The issues involve society as a whole and not just the scientists doing the research. We need to be accurately informed about the actual research and what is happening without media hype or hindrance."

Present at the launch event for the results of the project was the Minister for Science and Innovation, Lord Drayson, who spoke of how seriously the Government takes public dialogue in areas such as stem cell science.

He said: "Initiatives such as Sciencewise provide us with the framework to do this and build on what we've achieved to date with open discussions on stem cell science. This project's findings highlight the public's acceptance of stem cell research – this is extremely encouraging

and something I want to maintain through exchanges such as Sciencewise, as stem cell research progresses."

Sir Leszek Borysiewicz, Chief Executive of the MRC, said: "The passage through Parliament of the Human Fertilisation and Embryology Act earlier this year clearly demonstrated the importance that Research Councils must place on making sure that their research is able to take into account and respond to the concerns and aspirations of UK society. We have a responsibility to make sure that we maintain the high level of support for research shown in this report by engaging on issues such as commercialisation, co-ordination, and regulation."

Professor Douglas Kell, Chief Executive of the BBSRC, said: "Participants noted the importance of dialogue to the development of trust in stem cell science. BBSRC's Bioscience for Society Panel will help to embed the outcomes in policy development and strategic planning. We see this exercise very much as one step in a continuing process of communication and engagement."

The public dialogue sessions, commissioned by BBSRC and MRC and carried out by the British Market Research Bureau (BMRB), followed a recommendation in the 2005 UK Stem Cell Initiative Report (the Pattison Review) calling for a sustained dialogue with the public on stem cell research. Co-funded by the Government's Sciencewise-ERC programme,



which supports a number of other science and technology dialogue projects, the workshops took the form of structured conversations between experts, non-experts and policymakers.

The call for sustained dialogue is reflected in the final report from the study, and features as one of the main conclusions to have been made. There is a clear recognition that the public still want sustained dialogue in the area of stem cell study and that this is vital to the development of trust in this area of research. The report stresses the importance of using dialogue not as 'a set of one-off discussions to secure a licence to operate' but as a vital tool in

the continued planning and development of stem cell research. The report concludes that dialogue needs to become a habitual feature of research and that, going forward, it will become an automatic aspect of the practices and culture of stem cell research.

The report following the public dialogue will feed into decisions that Research Councils and others will make as the research matures and more stem cell treatments move closer to clinical application. The full report, 'Stem Cells Public Dialogue' is available on the Medical Research Council website.

BBSRC

The BBSRC is the UK funding agency for research in the life sciences. BBSRC is one of seven Research Councils that work together as Research Councils UK (RCUK). It is funded from the Government's Department for Innovation, Universities & Skills (DIUS). www.bbsrc.ac.uk

MRC

The MRC is a publicly-funded organisation dedicated to improving human health. The MRC supports research across the biomedical spectrum, from fundamental lab-based science to clinical trials, and in all major disease areas. It is one of seven Research Councils funded by the Government's Department for Innovation, Universities & Skills (DIUS). www.mrc.ac.uk

Sciencewise-ERC

The Sciencewise Expert Resource Centre (ERC) for Public Dialogue In Science and Innovation, funded by the Department for Innovation, Universities & Skills (DIUS), helps policy makers commission and use public dialogue to inform policy decisions in emerging areas of science and technology. The Sciencewise-ERC provides co-funding to Government departments and agencies to develop and commission public dialogue activities. www.sciencewise-erc.org.uk

BMRB

The BMRB is one of the UK's leading market research agencies. It operates within the Millward Brown Group which, in turn, is part of Kantar, WPP's insight, information and consultancy division. www.bmrb.co.uk

Institute for Science and Society

Participant feedback and quotes were collected by the Institute for Science and Society (ISS) in response to an evaluation questionnaire. The ISS is the independent evaluator of the BBSRC/MRC stem cell dialogue project.

BOOK REVIEW

GLOBAL HEATING: ACTION REQUIRED - NOW

Review of *The Vanishing Face of Gaia: A Final Warning* by James Lovelock

Allen Lane, 2009, 178pp

This is without doubt the most frightening book that I have ever read. Not because the author is peddling green propaganda – but because he isn't. It is written in a very urbane and personal style, and Lovelock almost goes out of his way to avoid sensationalism. However, his stark message is that global heating is happening, that the cause is unequivocally humankind, and there's virtually nothing we can now do to stop it. We are on an ever steeper slippery slope. The primary cause is simply that there are too many people on the planet (about half of all human-generated greenhouse gas emission is caused simply by our existence – our breathing, eating, and other biological activity, plus those of our pets and livestock). This makes nonsense of any long range emission reduction targets

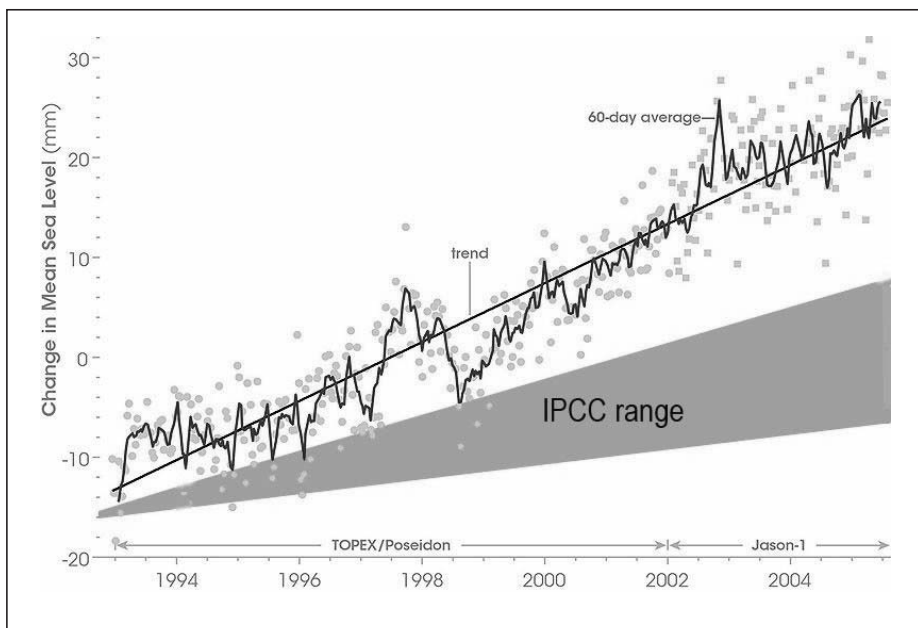


Figure 1 (reproduced by permission from James Lovelock). Observed changes in sea levels compared with predictions from the IPCC models. This is a simplified version of the upper part of Figure 1 included in the book. Sea level is a proxy for temperature change - and much more reliable as a global thermometer than trying directly to estimate average atmospheric temperatures.