

The hybrid embryo debate: good public engagement?

Fiona Fox and Josephine Quintavalle disagree

In May 2008, after a debate lasting many months, Parliament voted to allow the creation of hybrid embryos of cow or rabbit and human cells. The hybrids are to overcome the shortage of human eggs for embryonic stem cell research, which scientists believe will lead to therapies for degenerative diseases such as Parkinson's.

Dear Fiona,

Should we create animal-human hybrid embryos for stem cell research? This question provoked a heated debate among some of us, but did not engage the public, who remain completely unaware that this research has had full Parliamentary approval, let alone what it is actually about.

If it were a simple question of who won the debate, I would hand laurel crowns to your Science Media Centre, Evan Harris MP, Mark Henderson of the glaringly partisan *The Times*, and Stephen Minger, who is the beneficiary of a licence to create such hybrids. Together you convinced a majority in Parliament, and most of the medical research charities, that hybrid embryos were an absolute necessity for the physical salvation of mankind.

But I award you no prizes for proper public engagement, nor for the dissemination of impartial analytical science. To be fair, you were employed to promote the interests of the scientists who wanted to create these controversial embryos, not to facilitate informed debate. You did an excellent job for your clients, but to the detriment of the man in the street and the integrity of science.

Comment on Reproductive Ethics (CORE) is opposed to the creation of animal-human hybrids and argues that they are neither necessary nor desirable in the quest for stem cell cures for regenerative medicine.

Regards, Josephine

Dear Josephine,

Thank you for my laurel crown. I stand accused of doing my job well. And let me be clear about what that job is. The Science Media Centre (SMC) was established in 2002 because it was felt that scientists were not engaging effectively with the media on some of the more controversial issues hitting the headlines – including animal research, GM crops, the MMR vaccine and stem cell research.

It's interesting that you suggest that the debate we have just had on hybrid embryos was unbalanced – because many in the scientific community in 2002 felt exactly the same about the need for more informed and balanced debate on scientific controversies. In the case of GM crops, most people would concede that the UK said no to them after a huge media debate in which the voices of the best scientific experts went unheard.

I don't especially care whether the UK adopts GM crops, but I do care passionately that society reaches decisions about whether to adopt new technologies after a debate in which the scientists' voices have been heard. That's why I'm proud of my role in achieving that this time round.

Regards, Fiona

Dear Fiona,

I too care that society listens attentively to the scientists, but not to the exclusion of everybody else. And please - never presume that scientists speak with one voice and without moral constraints.

You stress the need for balanced debate. I agree, but unfortunately when animal-human hybrids were under discussion, you didn't provide it. Even the ultra-libertarian United Kingdom has to justify embryo research by robust arguments of necessity and desirability. These were rarely debated.

Internationally, most countries have banned animal-human hybrids, not exclusively on ethical grounds but for serious reasons of safety and feasibility. Many argue for safe alternatives involving adult stem cells, cord blood or the latest breakthrough, embryonic-type stem cells (induced pluripotent stem - iPS - cells) not involving the destruction of human embryos.

The unfortunate UK public knows little about these exciting alternatives. During the hybrid debates they were never properly informed about the 80-plus conditions being treated with non-contentious stem cells, or about the tens of thousands of patients cured worldwide. They certainly did not hear such news from your partisan lobby. Objective science was the obvious loser, but more importantly I feel sorry for the hoodwinked patients who desperately imagine animal-human hybrids might somehow cure them.

Regards, Josephine

Dear Josephine,

The SMC, the scientific community and scientific journals publish stories about developments involving adult stem cells, cord blood stem cells and iPS cells regularly. Human-animal hybrid embryos did not become news because scientists claimed they were more promising than adult stem cells. They hit the headlines because they are new, because the government threatened to ban them and because people like yourself issued alarmist comments about scientists playing God.

I agree that the media's obsession with the new and contentious has the effect of distorting the real picture and exaggerating the importance of one aspect of stem cell research – but that's something that you need to take up with editors, not scientists.

When announcing Ian Wilmut's request for a licence to do therapeutic cloning, I was lucky enough to speak to veteran Celtic player Jimmy Johnstone, who was dying from motor neurone disease (MND). Jimmy was desperate for a cure, but was clear that he was supporting Wilmut's research so that future generations would not have to suffer the indignity of this terrible disease. To suggest that Jimmy and all the other patients who support this research are being 'hoodwinked' by scientists is to insult their intelligence and to malign the scientists who are so careful not to raise expectations of cures tomorrow.

Regards, Fiona

Dear Fiona,

I'm not accusing scientists of playing God, but nor should they consider themselves beyond moral boundaries.

The UK public was simply not given balanced scientific information about hybrids, irrespective of the ethical issues. The arguments did not reach the man in the street, who does not attend Science Media Centre events or read scientific papers.

Patients anxious for cures paid more attention, and one cannot blame them for their desperate support for the use of cow and rabbit eggs. They were fed a diet of ersatz science and cruel promises of therapies just around the corner, instead of receiving accurate information about the viable alternatives which are already providing cures for many of the diseases under discussion.

For instance, motor neurone disease. There are no cures yet, but did you tell Jimmy Johnstone about the work going on in Northern Italy? They have been developing a therapy for MND using adult stem cells from the patients themselves, similar to the technique applied to spinal cord repair in Portugal. No farmyard hybrids, no embryos involved.

Not, in my opinion, a great victory for public engagement in science; but with hybrid embryo research already passé, the general public was at least spared the bother of attempting to get its head around the relative pros and cons (pun intended).

Regards, Josephine

Dear Josephine,

What evidence do you have for your assertion that the arguments did not reach the public? Of course they don't attend SMC press briefings, but the *Sun*, *Mirror*, *Mail*, *Express*, BBC and ITV do. Whether or how the mass media influences public opinion is the million dollar question that better minds than ours have failed to answer. But the public certainly heard from scientists this time round and I am proud of that.

About Jimmy Johnstone. You're right – I did not tell him about the adult stem cell research taking place in Italy. Why? Because Jimmy almost certainly already knew about it. He used the money raised for him by Celtic fans to hire an expert to travel the world investigating every possible treatment for MND.

Jimmy, a practising Catholic, wanted scientists to pursue all types of promising research in the bid to find an effective treatment for this terrible disease. And here lies the rub – ironically I think it's you, and not the scientific community or patients, who have singled out embryonic stem (ES) cells and hybrid embryos for special attention. I am confident that if adult stem cells or iPS cells start to prove more effective than ES cells, the scientific community will embrace them and move away from ES cells. But will you do the same if ES cells do prove to be the cure that the late Jimmy prayed for?

Regards, Fiona



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