

Authors fight misinformation on stem cell science

By Alvin Powell
Harvard News Office



At the stem cell panel, Christopher Thomas Scott responds to a question as Eve Herold looks on. (Staff photo Jon Chase/Harvard News Office)

California's Proposition 71, which committed the state to raising \$3 billion for stem cell research, was a public policy 'atom bomb that shifted the embryonic stem cell research debate from 'whether to 'how, the author of a book on the issue said Monday (Dec. 11).

Michael Bellomo, author of 'The Stem Cell Divide: The Facts, the Fiction and the Fear Driving the Greatest Scientific, Political and Religious Debate of Our Time (2006), equated California's action to a state stepping up and saying it would fund an expedition to the moon had the federal government declined the challenge in the 1960s.

Since California's action, several other states have considered funding stem cell science, Bellomo said, shifting the conversation from whether to do the research to how much it will cost.

Bellomo was one of three authors of recent books on the stem cell debate who appeared at a community outreach event sponsored by the Harvard Stem Cell Institute. The event, held at the Radcliffe Gymnasium Conference Room, also featured Eve Herold, author of 'The Stem Cell Wars (2006), and Christopher Thomas Scott, author of 'Stem Cell Now (2005).



Clarifying some of the misunderstandings surrounding stem cell science are Michael Bellomo (from left), Christopher Thomas Scott, Eve Herold, and panel moderator Willy Lensch.

Brock Reeve, the Stem Cell Institute's executive director, introduced the event, saying that embryonic stem cell science touches many parts of society and requires a broad-based effort to examine its different facets.

The panel was moderated by Willy Lensch, a research fellow at Harvard-affiliated Children's Hospital Boston. Lensch cited polls that show that the majority of Americans support stem cell research, but added that what they specifically support isn't known.

'People deserve to know what we are up to and why, especially if we use public money for our work, Lensch said.

Even as states step in where the federal government is reluctant to, the debate over embryonic stem cell research continues, the panelists said.

At least partly because of successful positioning by opponents of the research, it has become entangled in the abortion debate and the central question over when human life begins, Herold said. Further, it has brought back into the light practices of in vitro fertilization (IVF) clinics, which often make many more embryos than they use for couples seeking IVF services. These excess embryos, which are frozen and eventually destroyed, have been a source of embryonic stem cells.

Herold said that embryonic stem cell research is necessary because of the promise it holds to fight the diseases that still plague humanity. Many degenerative diseases, such as Alzheimer's disease, will become an even greater problem, she said, as society ages.

All three authors said they wrote their books in an effort to educate the public on an important scientific topic that they felt the public didn't fully understand. They said people regularly confuse embryonic stem cell research - involving stem cells taken from an embryo that can develop into any cell in the body - and adult stem cell research, involving stem cells taken from specific adult tissues that are already programmed to produce just those tissue types.

Other common points of confusion are the difference between reproductive cloning - which would produce a genetically identical twin and which has been widely condemned, including by most scientists - and therapeutic cloning, which would use cloning technology to create genetically identical cells for use in disease research and treatment.

Herold said she believed the California stem cell initiative stopped many researchers from moving to other countries, though Bellomo and Scott said the threat still exists.

What is being created is a national patchwork of varying tolerance of embryonic stem cell research, varying state by state. While Herold said it's important that the federal government step in and create a unified national landscape for the work, Scott said he wasn't so sure, saying the federal government's reluctance to fund embryonic stem cell research has uncovered funding sources that otherwise wouldn't have appeared.

But Scott also said that perhaps the greatest threat to the future of such research is the chilling effect the lack of federal funding has on the career decisions of young researchers. Instead of pursuing embryonic stem cell work, he said, many young researchers are focusing on other areas of work, such as cancer. That missing generation of researchers will be difficult to replace in the future, he said.

The authors acknowledged that many difficult questions remain, including questions about when life begins, raised by a member of the audience. Herold said she doesn't believe the question is answerable, while Scott said he believes that public forums such as the one they were participating in are critical in airing the views of the public on the subject.

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