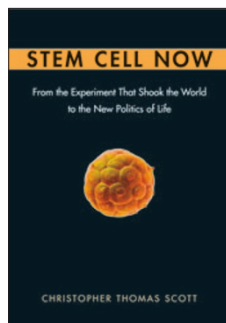


Sense about stem cells



Stem Cell Now: From the Experiment That Shook the World to the New Politics of Life

by Christopher Thomas Scott

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Reviewed by Charles G Jennings

In the seven years since Jamie Thomson first reported the isolation of human embryonic stem cells, the ‘stem cell wars’ have spread to almost every country where biomedical research is done, but nowhere have the arguments been more bitter, or the stakes higher, than in the United States. Here, stem cell policy has become intertwined with party politics; it emerged as a major campaign topic during the 2004 Presidential election, and it remains an important wedge issue by which Democrats hope to split the Republican vote in 2006 and beyond.

In *Stem Cell Now*, Christopher Scott attempts to bring some rationality to the public debate. As a popular summary of the current state of scientific knowledge, I found little to criticize. Scott begins with a short primer on genes, cells and embryos, and then traces the twin histories of cloning and stem cells, culminating in the Dolly paper of 1997 and Thompson’s ‘experiment that shook the world’ the following year. It was the conjunction of these two papers that triggered the current controversy, but as Scott clearly illustrates, both lines of work had their origins some fifty years ago; Briggs and King reported the first nuclear transfer experiments in 1952, and Leroy Stevens also began his pioneering work on teratocarcinoma cells in the 1950s. Perhaps the current debate should not have come as such a surprise, and reading Scott’s account one is prompted to ask whether we might do a better job of preparing for the next big bioethics controversy.

Having taken us through the biology of embryonic and adult stem cells, Scott gives an overview of their clinical potential. This is difficult territory, given the scientific uncertainties and the politicization of the arguments, but he draws a careful balance between the long-term promise and the difficulties still to be overcome.

The last part of the book is devoted to the public debate over embryonic stem cell research in the US, and I found this section less satisfying. ‘It began with a confusion of terms’, Scott writes, as though patient explanation could make all the misunderstandings go away. But that’s not how politics works, and confusion over terms such as ‘cloning’ or ‘embryo’ is often a result of deliberate strategy rather than lack of access

to information. When, for example, President Bush denounced ‘human embryos...grown for body parts’ in his 2005 State of the Union Address, who can doubt that his words were carefully chosen to evoke the imagery of abortion?

Scott summarizes the arguments fairly, and his judgments, when delivered, are eminently sane. But I found his account somewhat bloodless; the passions of the protagonists do not come alive here, nor does he convey just how nasty the rhetoric has become. Over the past year, I have heard Kansas Senator Sam Brownback draw a parallel between embryonic stem cell research and the slaughter in Darfur, and Tadeusz Pacholczyk (a Catholic priest and spokesman for the Family Research Council) compare researchers to the Chechen terrorists who massacred hundreds of hostages at a Russian school. Whether these sophisticated speakers believe their own demagoguery is beside the point—they make these offensive comparisons because they are politically effective, and their tactics provide insight into a fundamentalist worldview that is utterly alien to most scientists but which remains highly influential in American political life.

Despite the vehemence of some embryonic stem cell opponents, Scott is optimistic, as am I, that they will fail in the long term. They can delay but cannot prevent progress, and as with many prior medical advances, public opposition will largely collapse with the first hint of clinical success. Unquestionably some people will continue to be driven by conscience to oppose the destruction of human blastocysts, but I cannot escape the suspicion that their political leaders neither expect nor hope for outright victory. Instead, it serves their interests that the stem cell wars should rumble along without conclusion because, like other conservative bugbears such as flag burning or gay marriage, it serves as a rallying call to energize their supporters to elect right wing governments.

Although most of the blame for this ugly debate lies with the religious right, stem cell supporters are not wholly without fault, nor are they likely to emerge without damage. The promise of stem cell research has often been exaggerated, and scientists hoping for a funding bonanza have not always been quick to correct the resulting misperceptions. Arguably the economic benefits have also been overstated, and the research community may face a backlash from taxpayers as well as patient advocates if promised gains do not materialize quickly. The public credibility of bioethics as a discipline must surely be diminished by the perception that ‘experts’ can be found to support any position—a view that will be reinforced in particular by the politicization of the President’s Council on Bioethics. And it cannot be healthy that NIH’s influence has been weakened by its impotence to shape the embryonic stem cell agenda, or that a coordinated national strategy is in danger of giving way to balkanization and inter-state competition.

There is no lack of public information about stem cells these days, and despite the cacophony of opinions, the controversy has spawned some excellent journalism—Gareth Cook of the *Boston Globe* and William Saletan of *Slate.com* come to mind as among the most insightful commentators on this extraordinary intersection of science, ethics and politics. *Stem Cell Now* does not quite achieve the flair and depth of the best popular writing on the subject, but nevertheless it will be a useful source for anyone wanting a reliable and concise overview on the current state of the debate.

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