

STEM CELL CAUTION

by Richard Hayes, Center for Genetics and Society

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Support for stem cell research has become a cause *célèbre* among Democrats. Last year New Jersey Senator Jon Corzine made it a big part of his successful campaign for Governor. This year New York Attorney General Elliott Spitzer is proposing a \$1 billion stem cell bond issue as part of his own gubernatorial campaign. In Missouri Democrat Claire McCaskill is spotlighting stem cell research in her effort to unseat Republican Senator Jim Talent. And this week marks the one year anniversary of the passage of Castle-DeGette, the House bill that expands federal funding for stem cell research. Senate Democrats are rallying to push for a vote as soon as possible on the Senate version of this bill.

I'm a life-long liberal Democrat, pro-choice on abortion and a supporter of innovative medical research. I believe that stem cell research holds promise, and that the Bush administration's policies are unnecessarily restrictive. Now stem cells appear to be giving Democrats a potent vote-getting wedge issue.

Why am I worried about this?

I'm worried because in their over-the-top enthusiasm for stem cell and cloning research, Democrats are ignoring the many ways in which it could, if irresponsibly promoted and inadequately regulated, have consequences at odds with core Democratic values. The short-term political advantage that fervent support for stem cell research now gives Democrats could backfire when the problematic aspects of this research come to light.

There's no question that stem cell research should go forward. Stem cells may help scientists understand the basic biological processes that underlie certain diseases, and lead to findings about drugs or other therapies. And, at least in theory, stem cells may allow replacement of injured or diseased tissues with healthy ones.

At the same time, we have to recognize that stem cell research is in its infancy. Fundamental questions need to be answered before the therapeutic potential of stem cells can honestly be assessed. Can the tendency of embryonic stem cells to create tumors be eliminated? If not, it's difficult to see how they will be able to serve as a source of replacement tissues. Can adult stem cells be coaxed into a greater variety of cell types? If not, they may be valuable for a worthy but limited range of applications.

Stem cell research has now become framed as a frontline issue in the culture wars, with the intransigence of the Bush administration countered by exaggerated promises of cures from scientists and biotech entrepreneurs. According to Princeton University president and geneticist [Shirley Tilghman](#), "some of the public pronouncements in the field of stem cell research come close to over-promising at best and delusional fantasizing at worst." This is no way to decide health research funding priorities.

If stem cell-based therapies are ever successfully developed, how affordable will these be? After passage of California's \$3 billion stem cell initiative last November, its leaders acknowledged that the "individualized" stem cell therapies highlighted throughout the campaign could cost in the neighborhood of [\\$100,000 per patient](#). Who would be able to afford such treatments? Individualized medicine for the wealthy is the antithesis of the affordable, comprehensive health care that Democrats have historically and correctly made a top domestic policy goal.

Stem cell research that involves cloning also puts at risk the health and safety of women whose eggs it would require. Extracting eggs is a grueling process, involving hormone injections to first shut down a woman's ovaries and then to stimulate super-ovulation, followed by surgery to remove the eggs. These procedures pose real risks of complication; some women have been hospitalized and several deaths have been reported. Where would the hundreds of thousands of eggs per year needed for individually tailored stem cell therapies come from? A market in eggs procured from poor women the world over could become a lucrative and grossly exploitative industry.

Finally, Democrats need to acknowledge an unsettling fact: stem cell technologies developed to prevent and cure disease could also be used by rogue scientists intent on creating genetically-engineered children and human clones. This prospect is not science fiction. The technical means are close to being practicable now, and open advocacy of neo-eugenic practices is increasingly common. Noted scientists extol the prospects of a world in which wealthy parents

design their children with genes quite literally chosen from a catalogue. In his 1998 book *Who's Afraid of Human Cloning?*, bioethicist Gregory Pence suggests that children might usefully be [bred like dogs](#). Nobel laureate James Watson [looks forward](#) to the day when genetic engineering can eliminate "stupid" children and "ugly" girls. It is difficult to imagine a vision of the human future more at odds with long-standing Democratic values of equality, social justice and human rights.

Americans want stem cell research to succeed. Democrats are in a position to take the lead on this research, but with leadership comes responsibility. We need policies that allow stem cell research to proceed at a robust but reasonable pace, while imposing tough regulations to ensure that the fruits of this research are affordable by all, that they do not endanger the well-being of women who provide eggs for research, and that they are not used for socially and ethically unacceptable purposes.

Models for such policies are readily available. In 2004 the Canadian parliament approved the [Assisted Human Reproduction Act](#). It established a national oversight board, 50 percent of the members of which are women, and requires that all private firms, universities and government research labs experimenting with human embryos be licensed. The United Kingdom, Australia and France have also adopted policies of the sort that liberals and progressives can look to as models.

The new human genetic technologies, including stem cell technologies, are among the most consequential technologies ever developed. They have potential for great good but also great harm. The political party that best articulates a comprehensive approach that affirms benign applications and draws clear lines to prevent misuse and abuse, will best serve the interests of individuals, our society, and the human community as a whole.

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