

Study: Donated embryos could result in more than 2,000 new embryonic stem cell lines

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In a survey of more than one thousand infertility patients with frozen embryos, 60 percent of patients report that they are likely to donate their embryos to stem cell research, a level of donation that could result in roughly 2000 to 3000 new embryonic stem cell lines. Researchers from Duke University and Johns Hopkins University report the startling findings in the July 6, 2007 issue of *Science*.

In August of 2001, less than two dozen embryonic stem cell lines were made eligible for federal research funding. Most scientists now agree that the eligible lines have proven inadequate in number and unsafe for transnational research. Until recently, the best estimate of human embryos currently in storage that might be available for additional stem cell research was three percent. The 2003 study showed that donations would yield, at best, less than 300 new lines.

"Until now, the debate about federal funding for embryonic stem cell research has been dominated by lawmakers and advocates. But what about the preferences of infertility patients, who are ethically responsible for, and have legal authority over, these embryos"" asked Ruth Faden, director of the Johns Hopkins Berman Institute of Bioethics and one of the study's two co-authors. "These patients face the often morally difficult task of deciding what to do with their remaining cryopreserved embryos. In the end, it is these people who determine whether embryos are available for adoption or for medical research."

The 1,020 couples responding to the survey currently control the



disposition of between 3,900 to 5,900 embryos. Nearly half of the respondents (49 percent) indicated they were somewhat or very likely to donate their frozen embryos to medical research. When asked about stem cell research in particular, this percentage increased to 60 percent.

"Our data suggest that the way many infertility patients resolve the very personal moral challenge of what to do with their embryos is consonant with the conclusions of the majority of Americans who support embryonic stem cell research," said Anne Lyerly, M.D., Associate Professor of Obstetrics and Gynecology at Duke University and coauthor of the study. "Many infertility patients see donating their remaining embryos for medical research as preferable to simply discarding them or even to donating to another infertile couple for adoption."

Infertility patients in the Lyerly and Faden study said they were more likely to donate their embryos to scientists for stem cell research (60 percent) than to other couples for adoption (22 percent of respondents). Embryos are currently frozen in fertility clinics because more were created than could safely be returned to a woman's uterus at the time of fertilization or in order to increase the chances of pregnancy from a single cycle of in-vitro fertilization.

Source: Johns Hopkins University

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