CENTER FOR GENETICS AND SOCIETY

436 14TH STREET, SUITE 700
OAKLAND, CA 94612 USA
TEL (510) 625-0819
FAX (510) 625-0874
WWW.GENETICSANDSOCIETY.ORG

newsday.com

NY stem cell research nears dangerous line

by Jesse Reynolds
Newsday
January 23, 2009

Stem cell research may soon make headlines again. The restrictions on federal funding imposed by former President George W. Bush are expected to be lifted. But here in New York, a different type of stem cell controversy is brewing.

Since 2007, the state has managed a large stem cell research funding program of its own, second only to that of California. While it has quietly been issuing millions of dollars in grants for a wide range of work, the program is considering crossing an unprecedented — and dangerous — ethical line.

Most of the debates around stem cell research have focused on the use of embryos left over in fertility clinics. Hopeful parents undergoing assisted reproduction often end up with more embryos than they need, and these could be used in medical research. Bush's policy limited federal funding for this line of work; President Barack Obama is expected to lift that restriction very soon.

The issue in New York is different. If stem cells could be derived from embryos made using cloning techniques, they would have all the genes of the person who provided the original tissue sample. A cell line from a patient with diabetes, for example, would have all the genetic contributions to that disease, regardless of whether scientists know what those contributions are.

But there are several hitches. First, only a small — and shrinking — number of labs around the world are trying this, and they've not been very successful. In addition, cloning-based stem cell research raises a set of problems unrelated to the moral status of the embryo. Most obviously, its development increases the likelihood of human reproductive cloning, which remains legal in most states (although New York's funds can't be used toward that purpose).

The relevant challenge for New York lies in cloning's different starting material: fresh human eggs, which are available only from young women. The extraction of eggs poses nontrivial health risks for the women. The drugs used in this procedure have side effects ranging from pain to — rarely — death.

But the exact risks remain unclear. A comprehensive report from the Institute of Medicine emphasized how little is known about the full risks of egg extraction. In fact, the limited research that exists has been on infertile women. Thus, virtually nothing is known about the health impact on the fertile young women who are the likely providers of eggs for research.

Because of these health risks, a consensus has formed in legislatures, regulatory agencies and advisory bodies across the United States and throughout the world that women should not be induced by money to provide eggs for stem cell research.

California and Massachusetts have passed laws that prohibit payments beyond reimbursing women for their expenses. The practice is also rejected in the National Academies' guidelines for embryonic stem cell research, which are likely to be adopted as policy for federal funding in the near future.

On Monday, the ethics board of the New York state stem cell program will meet and consider whether payments should be permitted here. If so, not only will tax dollars be used for this purpose, but the state will be the first official body to explicitly endorse financial inducements for research-oriented egg extraction.

Yet the cloning-based stem cell research that calls for the eggs — sometimes called somatic cell nuclear transfer — is only a tiny portion of human embryonic stem cell research. And after almost 10 years of work, it has been largely unsuccessful, with no stem cell lines produced.

Meanwhile, new methods of cellular reprogramming have achieved the goals of cloning: the derivation of patient- and disease-specific stem cell lines. Many researchers, including Ian Wilmut — who helped create Dolly the sheep, the word's first cloned mammal — are shifting their work to these new methods.

Offering payments could lead to the exploitation of economically vulnerable women. In these dire economic times, in particular, payments could present a type of coercion for women to risk their health for benefits that remain too speculative.

Embryonic stem cell research is an endeavor with great potential, and should receive public financial support. But cloning-based work has been a dead end, and women's health should not be put at risk to confirm this. The New York stem cell program should decide against crossing an ethical line that has been endorsed by so many others.

Jesse Reynolds is Project Director on Biotechnology Accountability at the Center for Genetics and Society in Oakland, California.