

## Women's Eggs and Stem Cell Research

In the United States the debate about embryonic stem cell research has centered on whether human embryos should be used for research. It has left nearly untouched a number of important social, political and ethical issues unrelated to the moral status of embryos. Among the most important are those concerning the health and safety of women who provide eggs for research.

Currently, most researchers working to produce human embryonic stem cells use embryos created but not used during in vitro fertilization (IVF) procedures. Some scientists are attempting to use another technique, known as research cloning or somatic cell nuclear transfer (SCNT). SCNT involves inserting the nucleus of an adult body cell into an egg whose nucleus has been removed. The process requires a large number of women's eggs. In order to procure eggs, researchers typically give women hormonal treatments to first "shut down" and then "hyperstimulate" their ovaries, followed by surgical extraction of multiple eggs. This invasive process can give rise to serious health problems.

### Concerns

#### It's still early

- Treatments based on embryonic stem cells and SCNT are still highly experimental. Multiple egg extraction poses risks to women's health without a clear and demonstrable scientific rationale.

#### Financial incentives

- Offering payment beyond direct expenses commercializes reproduc-

tive material and creates a market for human eggs, which could lead to the exploitation of economically vulnerable women.

#### Lack of effective regulation

- The US has only a patchwork of inconsistent regulations and recommended guidelines at the federal and state levels addressing SCNT and egg extraction.

#### Effects of drugs

- The drug most often used to shut down the ovaries, Lupron, can cause side effects, including severe joint pain, difficulty breathing, chest pain, depression, amnesia, hypertension, and asthma.
- The drugs used to hyperstimulate the ovaries can lead to Ovarian Hyperstimulation Syndrome, which in the most severe cases can lead to hospitalization and, rarely, death.

### Needed policies

1. Researchers should be required to adopt the safest and most ethical approaches to procuring eggs for SCNT.
2. Researchers should investigate alternatives to hormonally-stimulated egg retrieval.
3. More extensive data on the health effects of egg extraction needs to be gathered, and should be reviewed by an independent oversight body.
4. Egg extraction should be conducted by physicians who have no financial conflicts of interest with the research for which the eggs will be used.
5. Women who provide eggs for research should be reimbursed only for direct expenses, in order to prevent the creation of a market in eggs.
6. Researchers or their funding agencies should cover medical costs of treating adverse reactions associated with egg extraction procedures.
7. Regulatory bodies with authority to enforce the above standards should be established at the state and federal levels, as needed.

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