



NEBRASKA COALITION
FOR ETHICAL RESEARCH

“THERAPEUTIC” CLONING

Position Paper

The science of “therapeutic” cloning

One of the sources for ESC transplants to treat patients suffering from degenerative diseases or serious injury is “fresh” embryos: human embryos who are clones of the patient/transplant-recipient. The patient donates a somatic (body) cell which is then subject to a cloning technique called somatic cell nuclear transfer (SCNT): (1) the nucleus of the patient’s body cell is transferred to the cytoplasm of a donated enucleated egg cell (an egg cell from which its nucleus is removed); (2) once inside the egg, the somatic nucleus is reprogrammed by the egg’s cytoplasmic factors to become a human zygote nucleus; (3) the single cell (zygotic) cloned embryo is allowed to develop to the blastocyst (5-7 day-old) stage, at which point (4) the embryonic clone (of the patient) is destroyed, or literally dismantled, as its outer trophoblast tissue is siphoned off from its inner cell mass cells (the body of the embryo consisting of approximately 30 *pluripotent stem cells*); (5) the pluripotent stem cells are separated, plated, reproduced into numbers large enough to form pluripotent stem cells lines, sold to researchers who reprogram the PSC lines into the specialty cells that are needed for transplant therapy for the original somatic cell donor-patient in hopes of regenerating his/her dying or dead cells.

Since the transplant-recipient is the one who initially donates his body cell for the production of his embryonic clone, it is less likely that the transplant will be rejected, as the nuclear DNA of the transplanted cells matches that of the donor-patient, transplant-recipient.

Position summary

Since “therapeutic” cloning is not therapeutic in any sense of the word: it involves the production of a human embryonic clone and then the destruction of the embryonic clone so that its progenitor—another human being struggling with ill health—could be cured of a disease or injury, the entire process fails to respect the inviolable life and dignity of everyone involved: the patient, the patient’s embryonic clone, and the researchers. NCER, therefore, cannot support this approach to therapy for persons struggling with degenerative diseases and serious injury.



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The ethics of “therapeutic” cloning

Human cloning is morally wrong and must be banned because it violates the life, dignity, and rights of human beings.

- **Every human being has a right to life**

Human cloning for research purposes violates the right to life of human beings because it inevitably leads to the deliberate destruction of cloned human embryos in research or in the process of achieving a viable pregnancy. It also poses potential harm to the woman who gestates the clone.

- **Every human being has a right to be protected from discrimination**

Therapeutic cloning violates the dignity of the human clone by discriminating against him or her on the basis of developmental immaturity.

- **The human being is an end to be loved, not a means to be used for another's end**

Cloning uses the human embryo as a means to benefit someone’s health (“therapeutic” cloning), to realize someone’s predetermined genetic design, or to console someone who grieves a deceased loved one (“reproductive” cloning) or to achieve financial gain through the buying and selling of cloned human embryos (“therapeutic” or “reproductive” cloning).

- **Every human being is of equal value to every other human**

Therapeutic cloning disregards the egalitarian notion of human dignity. For the sake of treating the disease of one born human being, it destroys the life of another embryonic human being.