Community Affairs Committee
Department of the Senate
CANBERRA ACT

Dear Sir,

I am most concerned about the current proposals to create human embryos and human embryo clones. It is morally wrong for us to create life and then to destroy it, even if it could benefit another person.

However, in actual fact, Professor Alan Trounsen has admitted that embryonic stem cell research is highly unlikely to deliver therapies or cures to anyone.

In 2002 politicians voted strongly against any type of cloning. What has happened since then that could turn something from being wrong into something that is right? I would suggest pressure from scientific and/or commercial interests.

All of us were once embryos. If we had been used for experimentation we would not be alive today.

The idea of human/animal embryos is quite horrifying. This would open the door to someone bringing into existence a creature that is half human, half animal, which is absolutely unethical.

The proposed research value of cloning has been superseded by advances in **adult stem-cell therapy.** I attach a short summary of some of the adult stem cells successes.

Embryonic stem cells are unused and unusable, because of their potential to form tumours. Our taxpayers' money should not be wasted on such research, but should go to further studies into adult stem-cell therapy.

Yours faithfully,

Bernice McKenna

ADULT STEM CELLS HAVE:

- Successfully treated hundreds of thousands of patients with cancer and leukemia;
- Repaired damaged corneas, restoring sight to people who were legally blind;
- Healed broken bones and torn cartilage;
- Helped regenerate heart tissue damaged by cardiac arrest;
- Been used to reverse juvenile diabetes.

Adult bone marrow stem cells were responsible for the first completely successful trial of human gene therapy, helping children with severe combined immunodeficiency disease to recover an immune system and safely leave their sterile environment ("bubble children") for the first time.

Adult cells from a young paraplegic's own immune system, injected into the site of her spinal cord injury, have apparently cured her incontinence and enabled her to move her toes and legs for the first time. Russian scientists have succeeded in treating six patients with spinal cord damage, using stem cells derived from the patients' own nasal tissue. All six are learning to walk again. The cells were injected into damaged areas of the spine, re-growing damaged spinal segments one at a time.

Last year Professor Mackay-Sim and his team at Griffith University showed that adult stem cells from the olfactory mucosa, the organ of smell in the nose, could be grown in the laboratory into many different types of cells, including heart, muscle, liver, kidney and blood cells. It is hoped that from these cells may come treatments for Parkinson's Disease, Motor Neurone Disease and Schizophrenia.

"Adult" stem cells are sourced from bone marrow, skin, umbilical cord blood, placentas, amniotic fluid, the patients' own tissue and even baby teeth.

Dr. Carlos Lima of Lisbon, who performs adult stem cell transplants says: "Mother Nature made embryonic stem cells to proliferate (and cause tumours) and adult stem cells to replace and repair. To defy Mother Nature's laws is, at least, dangerous."