

### Doesn't therapeutic cloning just use cells?

There is no difference in the method used for therapeutic or reproductive cloning. The only difference is what is done with the cloned embryo after it has been produced. With "reproductive cloning, the embryo is implanted in the womb with the intention of bringing the child to full term. In therapeutic cloning, the embryo is destroyed to extract the stem cells. Some State laws claiming to ban reproductive cloning actually allow the implantation of a cloned embryo into the womb, as long as the baby is destroyed before full term. Scientists can simply harvest organs or tissues as needed at the desired stage of development.

### Genetic Manipulation And Eugenics:

Scientists have put a new twist on cloning by mixing animal DNA with humans. In the 1970's, eugenist Joseph Fletcher dreamed of these "sub-humans" that could be created to perform demeaning or dangerous tasks. Fletcher wrote, "As it is now, low grade work is shoved off on moronic or retarded individuals, the victims of uncontrolled reproduction. Should we not program such workers thoughtfully instead of accidentally, by means of hybridization?" Lest you think this impossible, production of human/animal hybrids are already underway in the UK. In addition, IVF embryos are frequently being pre-tested for inherited genetic disorders. This eugenics method called "Pre-Implantation Genetic Diagnosis (PGD) attempts to weed out and discard less than perfect children, prior to implantation in the womb. Modifications can also be made to embryos, through another method of cloning called "Germ Cell Line Nuclear Transfer" whereby the early stage sex cells are removed and then manipulated by adding healthy genes to a sperm, egg or another embryo. Not only has this "gene therapy" failed in human applications, but any genetic alterations made to the genes, good or bad, will be passed on permanently to future generations. Of course

this is no problem for the amoral: just as our so-called civilized world did to certain segments of our society in the 1900's, forced sterilization will end the bad gene pool and abortion will "correct the mistake"!

### Same Sex Parents Producing a Child:

Two women involved in a same sex relationship wish to have a child together. One woman donates an unfertilized egg and has the nucleus removed; the second donates the DNA and has it fused with the egg. It is then electrically stimulated to begin the cloning process and the embryo is implanted in the womb of either woman.

### Creating Tissue and Organs:

"Therapeutic" cloning is supposed to create an exact genetic copy of one's own body tissues and organs to cure diseases without the risk of immune rejection. However, due to mitochondrial and other residual DNA remaining in the egg even after the nucleus has been removed, newly created embryos will never be an exact genetic match. And, as scientists readily acknowledge that fully developed clones have both obvious malformations and latent abnormalities that surface later in life, again we ask, what do you think the organs, tissues and cells taken from cloned *embryos* are going to produce?

### In Summary:

What you have read here is not only alarming, but one might ask how we have allowed ourselves to emerge to this point? Turn back the clock to 1973 and the Roe v Wade decision that was based on the court's inability to determine when life begins. But for well over a century, scientists have known fully well that a new human being begins at the instant of fertilization. No one questioned the size or location because simple cell biology attested to the fact that an entirely new human being formed from the moment sperm met egg and cell division began. But somewhere along the line – between Roe v Wade and present day technology, scientists, investors and politicians alike seem to have forgotten this simple principle, with some declaring that life does not really begin until implantation in the womb.

In order to lull America into accepting this bizarre claim, new terminology has emerged to confuse the public and disguise what scientists are really doing. New words such as "pre-embryo", "personhood" and "potential life" are used in the science and pro-abortion world to the point where most people believe these are valid scientific concepts for classifying early embryos. It simply makes it a lot easier to justify killing them in order to help other "real" human beings.

For if life is not human until it is implanted in the womb, then scientists have full reign to do as they please without moral repercussion in the lab. And they have already done so with the full blessing of an unsuspecting and naïve public.

We have now reached the point where human life is considered nothing more than a mere commodity that can be ripped from the womb, created, destroyed, cloned, repackaged, patented, bought and sold based on a perceived notion that scientific research must be advanced at all costs. Rather than progressing it seems we are reverting to a morally depraved, Neanderthal philosophy of survival of the fittest. Make no mistake: when man takes it upon himself to assume the authority of the Almighty Author of all human life, he will have declared himself to be a race in need of no God. And that race will vanish like the dinosaur.

Produced by

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Release Date: September 2008



## Understanding Stem Cell Research And Human Cloning

**"Science without conscience is the death of the soul." (Francois Rabelais AD 1537)**

### What Exactly Is A Stem Cell?

Stem cells are base cells that develop into the mature cells, tissues and organs within the human body and they begin forming at the moment of fertilization. At the "adult" stage they are unique to the type of organ in which they reside such as liver, pancreas, bone marrow, brain, heart, etc. At the embryonic stage, these "undifferentiated" cells have not yet become a specific organ cell type and thus they are constantly changing and reproducing rapidly. Because of this, scientists believe embryonic cells (ESC) can be "coaxed" to become virtually any type of cell and therefore might be used as replacement cells and tissue to treat a host of maladies, such as Parkinson's and Alzheimer's Diseases, spinal cord injuries, stroke, heart disease, diabetes, arthritis, etc.

However, there are serious drawbacks to using these embryonic cells, the first of which is a moral one. Scientists obtain these stem cells from either aborted children, cloned embryos or from over produced in-vitro fertilized (IVF) embryos. In doing so, the embryo must be *deliberately* destroyed in order to extract the stem cells. From a clinical standpoint, embryonic stem cells have failed to produce any cures whatsoever. In fact, due to their versatility, they are difficult to control and have instead, formed carcinogenic tumors in experiments.

### **If leftover embryos will be destroyed anyway, can't we use them for good?**

The Nazis also figured if the Jews were going to be executed they might as well experiment on them. The same principle could be applied toward the terminally ill or death row inmates. We don't harvest organs from these people, just because they are going to die anyway. It should also be noted that while proponents claim there are some 400,000 spare embryos, only 3% of these are actually available for research. The parents intend to use the remaining for future pregnancies.

### **Are there possible cures for Parkinson's & Alzheimer's Disease with embryos?**

To date, there have been no successful treatments using embryonic stem cells to treat any diseases. For example, more than 360 patients have used both embryonic stem cells and fetal tissue transplants to treat Parkinson's, yet none have been cured, and in fact their conditions worsened. Likewise, Alzheimer's is a "whole brain" disease, not a cellular one. Stem cells may not be capable of repairing that type of deterioration.

### **Can we obtain Stem Cells differently?**

Yes! Stem cells are present in our own bone marrow, blood, heart, even fat cells, to name a few. They are also plentiful in umbilical cords and placentas, which are normally discarded after a live birth. Until recently, scientists believed that only ESC could generate a multitude of cell types. However, it has now been proven that adult stem cells (ASC) produce far greater results without the need to destroy human life. Not only is the moral problem eliminated, but when the donor and patient are one in the same, there is no immune rejection. Scientists admit we are much closer to finding cures for most diseases using adult stem cells. Not only are these cells a viable alternative to using embryonic stem cells, they are also safer. Consider these developments with adult stem cells over the past 8 years:

#### **April 2000:**

University of Florida reported reversing Diabetes using insulin producing, adult pancreatic cells.

#### **August 1st, 2000:**

USF transforms bone marrow to become neural cells for treating degenerative brain disorders.

#### **August 2001:**

Germany reported the cure of a man with heart disease using his own bone marrow stem cells.

#### **January 2002:**

A single stem cell from adult bone marrow could turn into every single tissue in the body. This stem cell could be grown indefinitely with no signs of aging and does not form cancerous masses, a problem with embryonic stem cells.

#### **July 2004 Senate Subcommittee Hearings:**

Two women once paralyzed with severe spinal cord injuries, and a former Parkinson's Disease patient testified to their success of ASC therapies.

#### **August 2008**

Indiana University School of Medicine, restored blood circulation and limb function in mice treated with cells from menstrual blood, which could be used as treatment for damaged or diseased limbs. The cells have the potential to treat peripheral artery disease and prevent limb amputation

To date thousands of patients have been cured from Lymphoma, Leukemia, Breast Cancer, Ovarian tumors, Blindness, Osteogenesis, Multiple Sclerosis, Heart Disease and several auto-immune disorders using ASC. And how many have been cured using embryos? None.

### **So Why do Scientists and Politicians Want These Cells When There Is So Much Progress Using Adult Stem Cells?**

In a word: Money! Politicians know new research programs via government funding will create new jobs and boost the economy. Scientists want funding for any type of research, for university grants, for patents, for fame or as one scientist put it, because the research is "cool!"

Yet they are fully well that left over embryos will never provide enough material to treat patients. Therefore, human cloning will follow, providing mass production and destruction of human embryos – at taxpayer's expense of course.

### **What exactly is human cloning?**

Cloning produces a human being that is supposed to be genetically identical to its parent. The most common type of cloning is called Somatic Cell Nuclear Transfer, or SCNT.

#### **What is a somatic cell?**

Somatic cells are one of two types of diploid (having 46 chromosomes) cells in the human body. The other diploid cells are "germ" or sex cells, which are highly specialized reproductive cells, and are thus different than somatic cells.

#### **What exactly is SCNT? Is that really cloning?**

In SCNT any donor can provide the nuclear material from a somatic cell in their own body that will be used to produce their clone. Next, a donor egg obtained from a woman, or as scientists have recently reported, from aborted female babies. The method of transferring the nuclear material from a somatic cell into the "enucleated" donor egg is known as somatic cell nuclear transfer, the same process that was used to clone Dolly the sheep.

#### **So how was Dolly the Sheep Created?**

As in any reproductive act, it involved the union of two cells: A *donor* cell (in this case, an adult sheep cell) and a *recipient*, unfertilized egg cell.

- 1) The nucleus of the egg cell was removed containing most of the recipient sheep's DNA.
- 2) The donor cell's DNA, taken from the udder cell of an adult sheep, was placed next to the "enucleated" egg cell
- 3) An electric pulse was used to "jump-start" the formation of a newly developing embryo
- 4) The embryo was implanted in the uterus of a surrogate female sheep and carried to term.

#### **What Was This Clone Like?**

The newborn sheep had the same "outward" appearance of any other sheep with a nearly perfect genetic duplicate of the donor. However, hidden adversities would surface in later years. For example, cloning experiments on other animals have shown a marked increase in the size of the offspring and there is also a tendency for short life spans and serious genetic abnormalities.

### **(Dolly the sheep continued)**

Dolly began showing signs of premature aging and a progressive lung disease. Dolly died in February 2003 at 6 years old – about half of the average life span of normal sheep.

#### **What Are Other Problems?**

There were 276 failed attempts to create one sheep. Aside from all the miscarriages and stillborns, defective embryos were also destroyed. Scientists have had a success rate in cloning of less than 3% at best and the results are often grotesquely deformed mutations. Further, this genetic reprogramming can subtly alter genes with consequences that are not readily apparent but will surface later on – just as with Dolly. These problems include developmental delays, lung and heart defects, neurological disorders and malfunctioning immune systems. If fully formed clones have such serious problems, certainly so will any of the cells harvested from cloned embryos. So how long will it be before these same problems emerge in patients attempting ESC therapies?

#### **Reprogramming Stem Cells**

In November 2007, two scientists Dr. Shinya Yamanaka and Dr James Thomson published studies describing a new stem cell technique that produced embryonic-like stem cells by simply reprogramming adult skin cells. Immediately political pundits touted the iPS – or "induced pluripotent stem" cells as an ethical alternative to embryonic stem cell research and human cloning. Unfortunately, careful scrutiny of the methods used by both these and other scientists in 2008 would reveal that both aborted fetal and embryonic stem cells were used to reprogram the cells. Certainly this was no moral or medical victory at all. Because just like embryonic stem cells, fatal tumors and teratomas formed in the reprogrammed cells, thus rendering them useless for any sort of therapies or cures.