WHAT IF HUMANS COULD FLY?

What if humans could fly? What if we could live for two hundred years? What if there were several other people out there exactly like us? Wait... this was supposed to be a litany of distant possibilities. The public was amazed last month when they heard the news, Scientists have succeeded in cloning a human to produce a girl called Eve! Where could this lead to?

Clonaid claims birth of first human clone on 26th December 2002. Born in the US, Eve was created using Dolly technology - a skin cell and a human egg from the mother who is infertile. Clonaid claims 4 other mothers will give birth soon, one of which is carrying a twin of a dead child. While many experts expressed doubts about the claim, Clonaid said that independent gene testing would prove the claim in less than a week.

CLONAID is the first human cloning company! It was founded in February 1997 by Raël who is the leader of the [Raelian Movement](http://www.rael.org/int/english/index.html), an international religious organisation which claims that life on Earth was created scientifically through DNA and genetic engineering by a human extraterrestrial race whose name, Elohim, is found in the Hebrew Bible and was mistranslated by the word "God". The Raelian Movement also claims that Jesus was resurrected through an advanced cloning technique performed by the Elohim.

Animal cloning has produced some remarkable results within the last few years, which has suggested to some that there should be a way to produce a human clone within the next year. Many news articles have appeared recently highlighting the potential to clone a human baby in order to replace a loved one who died as a new-born.

Many social, moral, and ethical arguments have been raised in opposition to copying a person. But perhaps more important is the concern that we do not fully understand the science behind the successes from animal cloning experiments.

Dolly, the sheep, was the first cloning success, and since that early success in Scotland in 1997 the same experimentation has created mice, cattle, goat, and pig clones. While it is true that these scientists have accomplished amazing feats of science, what is also apparent are the tremendous risks that are undertaken each time cloning technology is attempted.

Animal cloning is extremely inefficient. For every 100 experiments only 1, 2 or if lucky, perhaps 3 appear to produce a viable offspring. Even then it's survival beyond the perinatal period is unlikely. There is no solution to this quagmire in the foreseeable future. And thus there is no reason to believe that any deferent outcomes will occur if and when human cloning begins.

Will society be forced to observe oversized babies, placental malfunction leading to embryonic death, severe respiratory and circulatory problems, immune dysfunction, or kidney/brain malformation, leading to later death before it is understood that these are the results that will occur from human cloning experimentation?

Before going into the details of why these abnormalities are thought to occur, it is important to have a basic understanding of what in essence happens in order to clone an animal. First, a donor cell is found, which has its original DNA extracted and discarded. Next is the addition of a nucleus from the desired animal that is to be cloned. The third step involves implanting the combined cell into the animal that the donor Cell was appropriated from.

**Understanding the Abnormalities**This part of the puzzle is as yet unsolved, but theories do point us in some tangible directions. Scientists believe that the resultant cloning abnormalities are not traceable to the donor nuclei, but more likely explanations involve failures in genomic reprogramming.

Genomic reprogramming in the natural way prior to embryogenesis (i.e., without cloning technology) involves a stage of development of the sperm and the egg known as gametogenesis, which can take months to years to develop a mature gamete. This process is sped up during cloning, and takes only minutes to hours. The process of configuring the exact state of the inner workings of the cell including such complex processes as methylation of the DNA may not be correct for the development of the embryo.

Methylation of DNA and other complex functions are now known to be essential to the correct functioning of each human cell, since they ultimately control gene expression. And thus successful cloning may be dependent upon the donated DNA being correctly altered to the state of an early embryo. It is thought by some cloning experts that failure of the nuclear clones to produce viable offspring is due to inappropriate reprogramming of cells, which leads to unregulated gene expression.

Finally, I would like to state that I support human cloning, as long as scientists assure that the life of the clone will not differ than one of ours.

**litany** noun

something that takes a long time to say that repeats phrases, or sounds like a list

**extraterrestrial** adjective

connected with things that exist outside the Earth

**resurrect** verb

to start an old practice, custom, belief etc again after it has not existed for a long time

**viable** adjective

technical able to continue to live or to develop into a living thing

**quagmire** noun [countable usually singular]

a difficult or complicated situation

**foreseeable** adjective

for the foreseeable future continuing in the future for as long as you can imagine

**perinatal** adjective technical

at or around the time of birth

**respiratory** adjective formal or technical

connected with breathing

**tangible** adjective

tangible proof/results/benefits etc proof, results, advantages etc that are easy to see so that there is no doubt