Somatic Cell Nuclear Transfer v. The Bible

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Abstract

Man's evolution has reached a point that his achievements are almost God-like. The quest to find ways to extend a person's physical life has led to the use of somatic cell nuclear transfer, which is used in therapeutic cloning and reproductive cloning. Somatic Cell Nuclear Transfer in Therapeutic Cloning works to regenerate entire organs, nerves, skin, and virtually any other part of the human body for transplant. While this type of research is innovative, and for transplant patients, potentially groundbreaking, it goes against biblical teaching. Among SCNT's vast number of steps, one includes the enucleation of an embryo. Because of its intentional destruction of the embryo after the stem cells are harvested, Christian scientists refer to therapeutic cloning as "clone and kill," emphasizing the biblical principles that demand we protect human lives. The unethical intricacies of this research is further proved immoral by the Bible.

Somatic Cell Nuclear Transfer vs. The Bible

Scientific research relies on curiosity. Sir Isaac Newton would have never discovered the universal Law of Gravitation had he not been curious to why an apple fell on his head. Albert Einstein, himself, said "I have no special talent. I am only passionately curious" (Einstein, n.d., para. 1). Curiosity is a beautiful, life-changing concept that results in learning, personal growth, squashing stereotypes, and ground-breaking findings, but when does curiosity go too far? In a more recent form of scientific research, Somatic Cell Nuclear Transfer, the overwhelming curiosity of scientists results in a finding that is immoral according to the Bible. Somatic Cell Nuclear Transferring is a new phenomenon still in its initial research stages that aims to eventually regenerate organs through its processes. However, one of its processes includes the intentional destruction of an embryo as waste material, making it unethical for its destruction of life. These secular scientists rebuke the worries of immorality because "the good overrides the ethical concerns" (Weasel & Jensen, E., 2005, para. 1). This, quite frankly, is a skewed viewpoint of life. If intellectual curiosity results in a finding that justifies the trading of an undeveloped life form for the healing of another life form, then the curiosity has not only degraded human life, but also far surpassed an ethical lining.

Somatic Cell Nuclear Transfer, also known as therapeutic cloning, involves many steps that makes cloned embryos for developing stem cells to treat disease. This process begins by removing a somatic cell (any diploid cell other than sperm or egg) from the body. Then, by using a pipet, the scientist removes the nucleus from this somatic cell, stores it, and throws away the somatic cell body. Separately, the scientist takes a donor egg, removes the nucleus of it, and keeps the enucleated egg cell. The scientist, then, puts the nucleus of the stored somatic cell into

the enucleated egg cell. This combination of the nucleus of the somatic cell and the body of the egg form a zygote. This zygote is electrically shocked to initiate cell division, forming an embryo. The embryo develops over a period of time and grows, within it, stem cells. These stem cells are then extracted and, in the case of organ regeneration, inserted into the damaged organ to differentiate and form new, healthy tissues. Once the stem cells are extracted, the developing embryo is no longer needed, so it is discarded (Cronger, 2008).

This last step is where the controversy begins. While cells can be generated to make new organs, it is necessary to kill several embryos to obtain the required DNA. In essence, the cloning destroys many human embryos as waste material, eliminating the chance for those embryos to grow into full maturity. These embryos that are being destroyed are already living by the scientific definitions of the term. Even though scientists rationalize this annihilation by only letting the embryo grow for two weeks, preventing a completely developed organism from arising, the time of development is irrelevant. Christians believe that life starts immediately after conception. In other words, within those two weeks, that life form is true and offers the same value as a fully matured human. Whether an embryo is two-weeks-old or two-months-old, it still derives the same worth as any human, causing embryo destruction to be morally objectionable because the early embryo potential for personhood following development to term is destroyed (Kfoury, 2007). God says, "Before I formed you in the womb I knew you, before you were born I set you apart; I appointed you as prophets to the nations" (Jeremiah 1:5, New International Version). He makes it very clear in Jeremiah that each life form has an intention and a purpose, and for an embryo to be disregarded as waste is thoroughly degrading.

Aside from the embryonic destruction, there is something simply unbiblical about the concept of making a genetically cloned embryos from another person, even if it is intended to be destroyed. The bible doesn't explicitly say that cloning is a sin, but there are principles that make this practice blatantly unjust. These principles can be found in Genesis 2:7. It says, "And the LORD God formed man of the dust of the ground, and breathed into his nostrils the breath of life; and man became a living soul" (Genesis 2:7). This describes how God creates every soul that develops into a human organism. When a being is cloned God is not breathing into his nostrils the breath of life, because the developing organism is not made from the hands of God but as an extension of him. Some make the argument that cloning is similar to In Vitro Fertilization, that they both create soulless babies, but this accusation is easily disproven. Although IVF does not undergo the traditional means of reproduction, it still produces the overarching result. A sperm and an egg form from two consenting humans to form an embryo that is inserted into the uterus. Unlike SCNT, no genetic information is cloned, it is made of unique material from two individuals. While this form of reproduction initially takes place outside of the body the result is still a natural unique child that is not a genetic clone of another (American Pregnancy, 2017).

If SCNT research persists, where will it end? Carl Felbaum, president of the biotechnology industry organization said, "One of the prospects should not be, should never be, the extension of technique to human beings. Now that it may be possible, we would say it should be prohibited if necessary by law" (Robinson, 2003, para. 4). Felbaum said this of the research in 1997. As we've seen, this research still exists, and is getting even more attention. "It is foolish to assume that only good intentions will direct the utilization of cloning. Man is not in a position

to exercise the responsibility or judgment that would be required to govern the cloning of human beings" (Got Questions, 2017, para. 6). Man has a long track record of nefarious intentions and ill fated demises. How can people, as imperfect creations, be accountable for the creation of artificial life themselves?

Many scientists think that people with an aversion to SCNT are simply just uninformed. Jesse Rainbow, a student and advocator of SCNT, tries to right the wrongs of these "miscommunications." The first misconception that opposers to this research say is that a clone would not be a 'real human.' To this he responds, 'But a clone would have exactly the same status that an identical twin already does. Both are derived from a single fertilized ovum' (Robinson, 2003). While scientifically a clone and a twin are both derived from the same ovum, they are not the same spiritually. In the clone's case, one is God-breathed, and the other is a soulless, man-made replica of the original. In twins, they are both God-breathed and equals through Christ. This biblical truth debunks Rainbow's statement, because a clone is not a human, however twins are. The second misconception to Rainbow is, "Cloning is not "natural." Rainbow argues that peoples' perception of "natural" is relative; what may be considered natural to one is different than how another considers the term (Robinson, 2003). This statement contradicts itself. If Rainbow's view of "natural" coincides with that of his research, and an opposing view coincides with that of the Bible, why is his opinion automatically the right one? How are men to decide which view is correct without the help of an ultimate mediator?

While the ethical objections seem to compile, there is good intent in Somatic Cell Nuclear Transfer. If the research proves successful, it could be absolutely groundbreaking for modern medicine. After the stem cells are differentiated in infected areas, they have the

capability to heal Parkinsons, Diabetes, organ failure, paralysis, and many other diseases (Sutovsky, 2007). This is possible because the new stem cells develop before being inserted into the infected area, and in cases like organ failure, the stem cells can be inserted into the damaged organ and differentiate, healing the weakened or dead cells within the organ (Kfoury, 2007). "Therapeutic cloning constitutes a promising tool in tissue engineering and might offer the possibility of synthesizing organs de novo, which would solve the problems of immune rejection and organ shortage for transplantation" (Kfoury, 2007, para. 8). With SCNT's use of stem cells, they hold the potential to heal those damaged areas of certain organs. This would be a groundbreaking medical technique considering America's lack of donor organs. "According to the Organ Procurement and Transplantation Network, 28,356 Americans received organ transplants in 2007… Yet as of August 2008, more than 99,000 people in the United States were on the national waiting list for organ" (Cronger, 2008, para. 2). The unfortunate reality of today's world is that organ demand outweighs organ supply. However, SCNT promises that organs can be healed without transplant.

SCNT can even assist in cancer diagnosis. "SCNT has applications in cancer research to identify whether a particular type of cancer arises from a genetic or an epigenetic defect, such as the demethylation of a tumor suppressor gene" (Kfoury, 2007, para. 13). Scientists justify that the millions of people suffering from incurable diseases explains why this research is so important—why the ethics do not matter. This is partially true. The bioethics do, in fact, matter. Despite the possible favorable outcome of this research, the severely unfavorable beginning cannot be overlooked. "If we view man as simply another creature and not as the unique creation he is, it is not difficult to see human beings as mere mechanisms needing maintenance and repair.

But we are not just a collection of molecules and chemicals" (Got Questions, 2017, para. 6). The unfortunate millions of people suffering from these medical misfortunes are the reason why biotechnology should be at highest priority, but not when the solution means the sacrifice of millions of undeveloped, potential humans, especially when there are alternate ways to achieve this goal.

The charge to find alternative methods of regeneration to sidestep cloning is heavily underway. "Aside from bioethical issues, there's a lack of available human eggs for research. Laws and ethical regulations from the National Academy of Sciences and the International Society for Stem Cell Research prohibit monetary compensation for females who donate their eggs for embryonic stem cell research. Coupled with the newness of the science and the potential risks involved with egg donation, stem cell researchers have been hard pressed to find donors" (Cronger, 2008, para. 7). Because of this and other ethical turn-offs, researchers have begun developing new processes for a similar result. "In February 2008, a group of scientists at the University of California, Los Angeles derived stem cells from adult human skin cells. They were able to do so by controlling four regulator genes that influence cell differentiation. By reprogramming the cells to act as stem cells, the altered skin cells became pluripotent and were called induced pluripotent stem cells. A few months later, Dutch researchers extracted adult stem cells from cellular material left over from open heart surgeries. They used those stem cells to grow heart muscle cells, without the use of embryonic stem cells or cloning" (Cronger, 2008, para. 8). So, the researchers were able to repair the heart tissue without the uses of SCNT. "Jesus looked at them and said, "With man this is impossible, but with God all things are

possible" (Matthew 19:26). God has the power to instill any idea into the minds of his followers, and by not disregarding God's teachings these researchers can potentially find abundant success.

Due to the lack of embryonic destruction and cloning of host DNA, many opposers to SCNT have responded significantly more positively to the aforementioned, alternative approach. This poses the question: if there are alternative methods not involving the discarded viable eggs and embryos, why not focus completely in the alternative area of study. After all, "In theory, we should be able to eventually grow new organs from stem cells. But the technological advances discussed above indicate that cloning might not be necessary to harness those valuable cells" (Cronger, 2008, para. 9). The Lord tells his children, "Finally then, brethren, we request and exhort you in the Lord Jesus, that, as you received from us instruction as to how you ought to walk and please God (just as you actually do walk), that you may excel still more" (1 Thessalonians 4:1). With God's plan in mind, scientists' findings will be far and beyond more abundant then without His blessing.

The finding of Somatic Cell Nuclear Transfer proves that intellectual curiosity and the desire to help people is still a prevalent factor in our society, but through this, it can also be confirmed that, at times, with innovations comes controversy. Scientists who captain Somatic Cell Nuclear Transfer research truly believe that ethics should not be the priority when it comes to saving lives. On the opposing side, Christians look at this research and see God in the places where the scientists didn't. God created each scientist on this project with his divine purpose; life should not be created only to be destroyed. If sacrificing potential lives means saving the ones who the procedure might work on, it is not the right solution. Despite the potential benefits of this research, and the scientist's secular views that life is not inspired by God and woven before

birth, the bottom line is it is unethical through the eyes of the Bible. God has a purpose for his people before birth. “Isaiah 49:1-5 speaks of God calling Isaiah to his ministry as a prophet while he was still in his mother’s womb” (Got Questions, 2017, para. 4). He created his children in his image, while through cloning he did not. "Genesis 1:26-27 asserts that man is created in God’s image and likeness and is unique among all creations” (Got Questions, 2017, para. 2). Finally, through following Gods word, “I will surely bless you and make your descendants as numerous as the stars in the sky and as the sand on the seashore….” (Genesis 22:17). Whether the practice should still be used is up to federal government, but whether the Bible disagrees with SCNT's form of ‘saving lives’ cannot be refuted.

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