

EDITORS' NOTE

While addressing a current issue, Mitchell Goulette incorporates his personal connection with and brings a unique perspective to the topic. His introduction shows his audience how important stem cell therapy is to him and his family and hopes his family's urgency is adopted by others. There is an informal tone throughout the essay, and by using the pronouns "you," "our," and "us," Goulette connects with his audience and implies that this is an issue that can affect anyone. How would the argument be more or less effective if it had adopted a more formal approach? Despite the informal tone, Goulette utilizes "traditional" research elements, such as outside sources and incorporating the opposing side's view. As you read, note the most rhetorically effective elements of his argument.

My Sister's Cure

Mitchell Goulette

"Mom! I can't stand up!" screams my sister from her room. My mom comes running upstairs and decides that we need to carry her to the car and take her to the doctor immediately. At the doctor's office, they have no idea why she all of a sudden lost the ability to walk. This event was just another symptom added to the other unexplainable ones such as having no feeling, blurry vision, and difficulty sleeping. No doctor to this day has diagnosed my sister with a specific disease or condition, but she has begun to make a recovery thanks to a new, yet still controversial treatment called human embryonic stem cell therapies. She has traveled to India twice in the past eight months to receive these treatments to help her unknown condition. Human embryonic stem cells are rapidly gaining momentum in the medical community because of the great potential they are beginning to prove in treating incurable and terminal conditions.

Because stem cells are so new and controversial, most people do not know a lot of information about them. Human embryonic stem cells come from a zygote, which is a fertilized egg. The actual stem cell is derived from the inner cell mass within the blastocyst at a stage before it implants into the uterine wall. A blastocyst is basically a zygote, just five days older, which in turn begins to develop the embryo. Due to its high degree of plasticity, human embryonic stem cells are referred to as a totipotent stem cell because it has the potential to generate all the cells and tissues that make up an embryo. Totipotency simply means that these stem cells' potential are "total" ("Totipotent Stem Cells"). Therefore, they are capable of differentiating into almost any type of cell in the human body, which totals up to around 220 different cells. Another capability of human embryonic stem cells is that they can serve as a sort of internal repair system for many tissues and can divide essentially without limit to replenish other cells as long as the person is still alive (Goulette). Also, to use stem cells as a method of treatment, a huge number of them are required. Human embryonic stem cells can be cultured without difficulty and quickly which makes them more easily accessible for therapies.

Even though stem cells still remain under the radar to most people, it is important to know the impact they could potentially make one day in the future. Human embryonic stem cells are a new and upcoming method of treating incurable and terminal conditions; a better general understanding of what these stem cells are capable of is needed, so we can educate our fellow students and community.

There are multiple great benefits to receiving stem cell therapy for those in need of it. Due to the stem cells being unspecific cells, they can repair any type of damage done to your body. Also, once the stem cells are injected into the patient's body, those cells will immediately begin to regenerate and renew dormant cells. Furthermore, the stem cells start to create new cells within the body, so they help jumpstart the process again to produce new, healthy cells. The understanding of how stem cells work is also immensely beneficial for human health. For example, "What researchers learn from studying how embryonic stem cells develop into heart muscle cells . . . could provide clues about what factors may be able to directly induce the heart muscle to repair itself. The cells could be used to study disease, identify new drugs, or screen drugs for toxic side effects" ("Turning Stem Cells"). Many people think the only way stem cells could benefit the human body is through injections and transplants, but that is very wrong. The possibilities of what stem cells can do are seemingly endless.

Stem cells can also be used to rebuild and repair organs. With the proper amount of research, one day organ transplants will no longer exist. This is because instead of having to take someone else's organs, stem cell treatment will allow for organs to re-heal without ever needing surgery or other dangerous procedures. Also, large amounts of immune-system repressing drugs will not be needed because it will be your own organ.

Now, with this new medical revolution comes much controversy. Many people see a connection between abortion and stem cells because of the killing or use of a human embryo. Some of you choose to be pro-life advocates whether it be because of outside influences or your own personal beliefs, while some others are pro-choice. Generally speaking, pro-life advocates do not support stem cells while pro-choice advocates tend to either have a neutral or supportive stance on stem cells. To the people that support pro-life, I am not asking you to change your views to pro-choice. My goal is to honor your opinion and stance on abortion, but change the way in how you view human embryonic stem cells. Yes, they do have to use a human embryo, which according to other pro-life advocates is murder, but look at the benefits. So many people who have lost all hope could be given a second chance in life.

Stem cells will save many lives and it is all because of one human embryo. A common misconception is that an individual human embryo is needed for every patient who receives stem cell therapy, which is one hundred percent not true. As I have stated earlier, human embryonic stem cells are very easy to culture, and my sister's doctor in India, Dr. Shroff, has said that the one embryo she has been working with could theoretically treat the entire human population (Goulette). Also, "it's important to consider that any embryos used in the research are created in test tubes in a laboratory, not in a uterus. Because of this, the chance that the embryos would survive even without the researching and testing is not very good" ("Embryonic Stem Cell"). All embryos that are used for testing are either created in test tubes as said above or are surplus embryos donated by fertility clinics. These donated embryos are used with full consent. If the embryo was not used for stem cells, it would have been destroyed anyways because it was a surplus.

The reason that I am such a huge supporter and advocate of human embryonic stem cells is because of my sister. She has been to India two times now to receive stem cell therapy for the special condition she has. After receiving therapy in New Delhi from Doctor Shroff and her staff during the months of November and December in 2009, my sister walked off of the airplane returning back home. She was given the ability to walk again. My sister just returned a second time only a few days ago, and this time she has a little bit of feeling in her lower back. It has been almost three years since she had feeling in her body. The most

miraculous thing is that the doctors expect her to make a full recovery and her body to go back to completely normal. The word “normal” has not been in my family’s dictionary for as long as my sister has been sick because her condition has been anything but normal. We didn’t even fathom that it would be possible for her to make a full recovery, but these doctors believe so strongly that she will because they have confidence that the stem cells will do their job and heal her.

Many of my sister’s fellow patients in New Delhi are there due to freak accidents. One boy, who is our age, severed his spine on the first play of the first game of his senior year football career. In the blink of an eye, he became a quadriplegic. Another one of my sister’s friends was rough-housing with his siblings and ended up falling over the couch, landing directly on his neck, snapping it instantly. His life will forever be different because of a freak accident. Both of these young men have showed signs of improvement despite being told by other doctors that nothing could be done. The reason I am telling you guys about these other individuals is because it could happen to us, and God forbid if it does, wouldn’t you want to have the best and most effective treatment easily available and within the comfort of your own country?

Due to Obama passing all bills that support stem cells, they no longer have a place in politics; therefore, your voting ability will have no affect on stem cells legally. What can be done, however, is to educate. Spread the word about this marvelous and miraculous new medicine to everyone and anyone willing to listen. This will save lives and will make so many other people’s lives easier and more manageable. If you do support stem cells and help spread the word about them, you may be the turning factor in saving a life.

MITCHELL GOULETTE is a forestry and natural resources major.

WORKS CITED

- “Embryonic Stem Cell Research Facts.” *Embryonicstemcellresearch.org*. Embryonic Stem Cell Research, 29 Mar. 2010. Web. 20 May 2010. <<http://www.embryonicstemcellresearch.org/>>.
- Goulette, Tracy Lee. “Human Embryonic Stem Cell Information.” n.d. MS.
- “Totipotent Stem Cells.” *ExploreStemCells*. ExploreStemCells, n.d. Web. 27 May 2010. <<http://www.explorestemcells.co.uk/TotipotentStemCells.html>>.
- “Turning Stem Cells into Therapies.” *The State Stem Cell Agency*. California Institute for Regenerative Medicine, Sept. 2009. Web. 20 May 2010. <http://www.cirm.ca.gov/StemCellBasics_Therapies>.