

“Are you against stem cell research and cloning?”

Response, Part I: Clarify the moral logic of your position

“Not unless it kills an innocent human being. Embryonic stem cell research always kills a human being in the embryonic stage when scientists remove the stem cells. Wouldn't you agree it is wrong to kill one human being to do research on her body to help someone else?”

Response, Part II: Clarify that you have compassion for the suffering

“With that said, I think we have to do our best to care for those who have difficult diseases without hurting others in the process. This is why I think we should aggressively fund adult stem cell research (ASCR). It kills no one and has already shown a great ability to help people recover. Recently, a Parkinson's patient and spinal cord injury patient both testified before a senate subcommittee claiming their adult stem cell treatments had been very effective in improving their conditions. Since embryonic stem cell research is not an option for those who care about human rights, don't you think we should promote adult stem cell research and leave the embryos alone?”

What are stem cells?

Stem cells are the root cells that the body uses to create the organs of the body. As development progresses the stem cells differentiate into different tissue types. While early embryos are made up almost entirely of pluripotent stem cells (able to differentiate into any tissue), multipotent stem cells are found in various tissues of the adult body (e.g. bone marrow, brain, olfactory mucosa). Stem cells are also found in rich supply in umbilical cord blood. Acquiring stem cells from embryos requires us to kill the embryo. Acquiring stem cells from adult sources and umbilical cord blood kills no one.

Three Key Questions:

Where do we get human embryonic stem cells? We can only derive *human embryonic stem cells* by killing a *human embryo*. Removing its stem cells leaves it with no cells from which to build the organs of its body.

What is the embryo? An embryo is a living, whole, human organism (a human being) in the embryonic stage. All the embryo needs to live is a proper environment and adequate nutrition, the very same thing all infants, toddlers, adolescents, and adults need.

Are all human beings valuable or only some? The abolitionist movement, the suffragist movement, the civil rights movement, and current concerns about racism, sexism, and international human rights all require a foundation of natural rights (that humans have in virtue of their human nature) for their force. The Declaration of Independence assumed this view of human rights. In other words, the reason we think racism, sexism, and genocide are wrong is because they set aside a certain group for discrimination or extermination because of some surface difference between us rather than recognizing the underlying similarity that justifies equal treatment. If we want to live consistently (which everyone does), our desire to protect women and African-Americans from sexual and racial discrimination will also lead us to protect human embryos and fetuses from developmental discrimination.

Why do scientists want to use embryonic stem cells?

Scientists believe that embryonic stem cells can be manipulated into various tissue types and implanted into patients with degenerative diseases like Parkinson's, Diabetes, lymphoma, multiple sclerosis, and for patients with spinal cord injuries.

Why do scientists want to use embryonic stem cells and not adult stem cells?

Some scientists claim embryonic stem cells will yield insights into how adult stem cells can be manipulated. But most scientists who promote embryonic stem cell research believe embryonic stem cells are more flexible than adult stem cells. They also are motivated by the fact that creating an embryo using donor sperm and ovum is now a very common practice. Some believe there are many embryos that will die in frozen storage if we don't "make use" of them (they are wrong, see below), but even if this were true, it wouldn't justify killing them for research any more than killing death row inmates for research now who are going to die "soon."

Is ESCR Legal?

There are no restrictions on ESCR in the USA. The debate is usually about whether ESCR should be funded by the federal government (tax-payer dollars). President Bush made a decision in 2001 not to fund any research on embryos killed after August 9 of that year. All of the subsequent public debate about embryonic research has centered around this funding decision. Pro-lifers believe that ultimately ESCR should be illegal, but for now, the debate in the political arena is whether it should be funded.

How do we clone an embryo?

Somatic Cell Nuclear Transfer (SCNT) is a process by which scientists enucleate an ovum (remove its DNA) and insert the DNA from a somatic cell (any diploid cell of a human body) into the ovum. Scientists add a mixture of chemicals and provide an electric spark that causes the mixture to begin dividing through the zygote and embryonic stages.

What is a cloned embryo?

A cloned embryo is a human being in the embryonic stage. The only difference between a cloned embryo, an embryo conceived in vitro (in a test tube), and a naturally conceived embryo is how the embryo came into being. The greatest concern, then, is not how the embryo came into being, but how will it be treated once it's here? Currently, clones are always killed before a certain point in gestation, which is clearly wrong. Clones should be treated like any other intrinsically valuable human being.

Why do scientists and advocacy groups want to promote embryo cloning?

Cloned embryos can provide stem cells that are an exact genetic match to the patient being treated. Using these cells reduces the risk of tissue rejection and has the potential to produce treatments that rival the success of adult stem cell research (whose success, it can be argued, is largely due to using stem cells from one part of the patient's body to treat another part of her body).

Aren't there lots of leftover embryos going to waste? No!

Although it is true that about 400,000 frozen embryos are currently stored in the US, there are actually less than 38,000 available for research. See *Fertility and Sterility*, May 2003 (available at www.asrm.org) for a peer-reviewed study that makes this point persuasively. While the number of embryos available does not affect the moral question of whether any of the embryos should be killed, it is encouraging to note that the actual number of embryonic human beings who are not already set apart for implantation is only a fraction of the total number. Finding a moral placement for this smaller number through adoption is quite plausible. In fact, the Snowflakes Adoption Service (www.snowflakes.org) specializes in finding loving families who will implant and give birth to these currently-frozen children. With the many infertile couples in the US (According to the National Center for Health Statistics, 2.1 million: www.cdc.gov/nchs/fastats/fertile.htm) there are certainly plenty of families who could adopt these children and implant them. So, it is not true that these embryos will go to waste if we don't experiment on them. We can care for them just as we would any other child.