**Embryonic Stem Cells Can Cure Diseases**

Cody Unser, "The Promise of Human Embryonic Stem Cells," from Testimony to the US Senate Committee on Appropriations, Subcommittee on Labor, Health and Human Services, and Education, September 16, 2010. All rights reserved. Reproduced by permission.

"[Stem cell] research is real, promising, and hopeful to me and to others as we want so much to ... win our battles over diseases that constantly challenge our quality of life."

Cody Unser is the oldest daughter of champion racecar driver Al Unser Jr. and granddaughter of four-time Indianapolis 500 winner Al Unser Sr. At the age of twelve, Cody was paralyzed from the waist down after contracting transverse myelitis, a rare autoimmune disease. In the following viewpoint, Cody testifies before a US congressional committee about the hope that human embryonic stem cell research offers her and millions of other Americans suffering with debilitating injuries and diseases. According to Unser, hope became a part of her life the day she saw the recovery of a once-paralyzed mouse treated with embryonic stem cells. Unser urges the committee members to help her beat her disease by passing legislation that explicitly allows embryonic stem cell research to proceed in the United States.

As you read, consider the following questions:

1. Transverse myelitis is an autoimmune disease that causes the immune system to attack what, according to Unser?
2. What does the author say a once-paralyzed mouse that was treated with embryonic stem cells was able to do?
3. According to Unser, if Congress and the courts keep debating human embryonic stem cell research, more and more scientists will have no choice but to do what?

Thank you Chairman Harkin for allowing me to testify and use my voice on behalf of millions of Americans living with debilitating diseases. I feel very honored and, to be honest, frustrated as to why we are here today.

Ten years ago, my hero, my superman, Christopher Reeve, sat in his power wheelchair and using every breath he took thanks to a machine, testified to Congress with the hope that embryonic stem cell research would be federally funded. Today, in 2010, we are still fighting for this promising and hopeful research to continue. Embryonic stem cells are science based on hope. Hope for improving the quality of life of millions of Americans by providing better treatment and eventually cures.

**Living with Paralysis and Disease**

My journey began 11 years ago. I was a healthy 12-year-old kid who was very active and had big dreams. Everything changed on February 5, 1999. I can't recall how it felt to put my feet on the floor, how I got dressed that morning or what I had for breakfast but what I do remember is that in a manner of 20 minutes my body became paralyzed and my life drastically changed. I was playing basketball at school and suddenly couldn't catch my breath and my head started pounding with sharp pain. The school I was attending called the ambulance and while laying down in the locker room my left leg became numb and tingly. I picked it up, put it back down and I couldn't feel the floor. I was scared out of my mind but I thought that whatever was wrong the doctors could fix. Transverse Myelitis is an
autoimmune disorder in which the immune system attacks the spinal cord causing inflammation that damages the cells that control sensory and movement of the body. After staying in the hospital for a couple of months I went to rehabilitation where I learned how to do everything from a wheelchair all the while having dreams of my feet imprinting in the sand.

Today I am a 23-year-old woman who has learned to adapt to life in a wheelchair and in a paralyzed body. Even though I live life to the fullest and look as though I am just sitting down in a wheelchair, I have to always worry about pressure sores from constant sitting, I worry about my osteoporosis advancing in my bones from not standing and bearing weight which led to a fracture of my left femur. I worry about my scoliosis getting worse, a curvature of the spine common in people with spinal cord injuries. I have bladder and bowel complications and advancing nerve pain. But I am just one out of millions of Americans living with various diseases and conditions that no matter how hard we try affect how we live our lives.

**Embryonic Stem Cells Give Hope**

The first time hope actually meant something to me and became sort of my religion was when I saw what human embryonic stem cells can do. A year after I became paralyzed, my doctor and stem cell scientist, Doug Kerr, who was at Johns Hopkins [University] at the time, showed me a mouse that was once paralyzed and now can bear its weight and take steps. At that moment, I realized that this is science I couldn't ignore and it gave me a feeling of hope I wanted to fight for. Which brings me to another point. It's frustrating to hear critics of this research say this is a path we can't go down and adult stem cells hold just as much promise as embryonic stem cells do. Science is the pursuit of discovery and possibility. We should explore every opportunity and not count anything out because I can't wait. And I know millions of Americans now and in the future can't wait. In Christopher Reeve's testimony in 2000 he said, "No obstacle should stand in the way of responsible investigation of these possibilities." I am here today to remove yet another obstacle in the path of this research, this answer, this hope.

The political debate over this research is forcing many of our brilliant scientists to think twice about whether they should stay in this field. I know how dedicated and passionate they are about helping all of us find answers to our pain and suffering. If we keep dragging this debate back here to Washington, in Congress and in the courts, more and more scientists will have no choice but to either find a different research avenue or move to another country where they can pursue the promise that embryonic stem cells possess. Once and for all I urge Congress to pass unambiguous legislation that allows this research to move forward.

I grew up around racetracks and my family has won the Indianapolis 500 a total of 9 times. The goal of every driver is to pass under the black-and-white checkered flag first. The meaning of the checkered flag is winning. Right now, I can see that flag waving for me to go by. But with this current [August 23, 2010] court ruling [blocking federal funding of human embryonic stem cell research] I feel that I have been driving under a long yellow caution flag. Today, I came here to say that this research is real, promising, and hopeful to me and to others as we want so much to take that checkered flag and win our battles over diseases that constantly challenge our quality of life.