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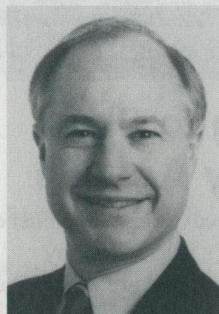
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**FASEB**

9650 Rockville Pike, Bethesda, Md. 20814-3998  
Tel 301-634-7650 Fax 301-634-7651  
Web [www.faseb.org/opa](http://www.faseb.org/opa)  
E-mail [pcampbell@opa.faseb.org](mailto:pcampbell@opa.faseb.org)

## Johns Hopkins Stem Cell Researcher Uses Expertise to Inform Policy Discussions

In June, Sen. Orrin Hatch (R-Utah), a key Senate sponsor of legislation to permit nuclear transplantation to produce stem cells (often referred to as therapeutic cloning), contacted FASEB seeking scientific experts on the front lines of stem cell research to discuss the promise of the laboratory technique right away.



Curt I. Civin

Responding to an urgent plea from FASEB's Office of Public Affairs, Curt I. Civin, M.D. (the Samuelson Professor of Oncology and Pediatrics and Co-Director of the Division of Immunology and Hematopoiesis in the Sidney Kimmel Comprehensive Cancer Center at the Johns Hopkins University School of Medicine) agreed to catch a train the next morning for an hour-long meeting with Senator Hatch. Dr. Civin, who is a member of The American Society of Hematology and the American Society for Clinical Investigation, discussed the scientific issues surrounding this exciting new procedure and argued persuasively against any federal prohibition on nuclear transplantation.

The Senator urged Dr. Civin to persuade his colleagues to voice their opposition to a ban and to respond to scientific mischaracterizations of the research from opponents. In the weeks since, Dr. Civin has done just that – and more.

Curt Civin's career demonstrates the power and promise of what Senator Hatch often refers to as the emerging field of regenerative medicine. It's a field upon which the Senator has staked his support and his reputation. Thousands of patients have been treated successfully with stem cell transplants enabled by Dr. Civin's research and clinical expertise as a pediatric oncologist. The transplants were made possible by Dr. Civin's discovery of the CD34 monoclonal antigen and antibody which enabled scientists to identify and isolate hematopoietic stem cells, the precursors of blood, marrow, and immune cells.

The CD34 antibody binds to an antigen, also developed by Dr. Civin, on the surface of stem cells. CD34 acts like a magnet, attracting and separating these stem cells from all other blood and immune cells. Cancer therapies, such as chemotherapy and radiation therapy, damage and often destroy blood cells and the immune system, leaving patients vulnerable to infections and other life-threatening complications. By giving patients these specially-collected stem cells through a transplant, the body's immune system can be renewed, enabling patients to handle more aggressive and potentially curative therapies. The CD34 monoclonal antibody is also widely used in stem cell research. Dr. Civin received the National Inventor of Year Award in 1999 for his achievement.

Like many of his colleagues in the adult stem cell field, Dr. Civin believes that major advances in adult stem cell research are dependent on basic research on embryonic stem cells. This passionate belief – and Senator Hatch's plea for help from scientists to advocate against legislative efforts to delay or derail promising research – have inspired Dr. Civin to action in recent weeks. Dr. Civin sent a follow-up letter to Senator Hatch outlining the scientific benefits of nuclear transplantation in greater detail. He contacted a number of his colleagues, among the most prominent scientists in the field, convincing them that they must express their opposition to a ban. He urged them to write Senator Hatch and address specific scientific mischaracterizations of the research based on their own expertise. These actions have contributed substantially to efforts to protect this vital research.

As the speed of scientific discovery has accelerated in recent years, many have expressed concern about the social and ethical implications of future advances. A sizeable and vocal segment has sought to retard progress by advocating wholesale prohibitions of research. Dr. Civin's invaluable advocacy and experience are helping to refocus debate away from abstract principles and onto the science of healing people. **FN**