THE AMERICAN SOCIETY FOR CELL BIOLOGY

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ASCB Statement on Senate Passage of H.R. 810, the Stem Cell Research Enhancement Act

For the second time in as many years, our nation's lawmakers are about to debate the expansion of the federal government's policy regarding the funding of human embryonic stem cell research. This is a critical moment to move the promise of this research closer to the future sought by disease sufferers, their families and the biomedical research community.

The Promise

The scientific promise of human embryonic stem cell research builds on over 25 years of research, beginning with mouse embryonic stem cells and most recently with human embryonic cells. The vast majority of that research tells scientists around the world that human embryonic stem cells are capable of forming all of the normal tissue types in the human body. This includes pancreatic cells that secrete insulin, blood cells that carry oxygen, and brain cells that allow movement, emotion and cognition. That's why The American Society for Cell Biology (ASCB) believes that: (1) embryonic stem cell research provides great promise for the replacement of damaged and diseased cells and organs, and (2) embryonic stem cells are vital tools to understand the mechanics of disease and to test and develop new drugs.

History

In 2001, President George Bush announced his policy regarding federal support of human embryonic stem cell research. He limited federally funded research to those stem cell lines already in existence. The ASCB, along with a majority of the biomedical research community, was surprised that the Administration claimed the existence of a large number of stem cell lines. However, the ASCB withheld final judgment on the policy until its scientific merit - and the viability of the lines - could be determined.

The Society set out five specific criteria the lines would have to meet to be scientifically useful. It turned out that most of the stem cell lines did not meet the five criteria. Because of our initial concerns about the 2001 policy's possible roadblocks to ethical and critical research, the ASCB also noted "its insistence that the President and the Congress act to

permit federally funded scientists to derive or use newly developed stem cell lines as appropriate."

The scientific community learned after the policy's release that a vast majority of the stem cell lines approved for use by the President are not available to NIH-funded researchers. Seventy-eight lines were ultimately listed as "eligible" for federal funding under the policy. However, only approximately 22 of the lines were actually available for use by federally funded researchers. And these 22 lines have limited genetic diversity, narrowing the possibility of what can be explored considerably.

Into the Future

American researchers would greatly benefit from a greatly expanded number of scientifically advanced and genetically diverse stem cell lines.

The intent of H.R. 810, the Stem Cell Research Enhancement Act, is to expand the current policy to allow federal funds to be used for research with stem cell lines from excess *in vitro* fertilization (IVF) embryos. These embryos would otherwise be destroyed. And the most successful, demonstrated method for creating embryonic stem cells is to derive them from the byproducts of family-building efforts.

The ASCB - like the American public - strongly supports the United States Senate's approval of expanded federal funding to further promising research. Other bills being debated by the Senate at the same time are not, and should not be considered, alternatives to H.R. 810.

The American Society for Cell Biology (ASCB) is a professional society of 12,000 basic biomedical researchers in the United States and 50 nations around the world.
To schedule interviews with ASCB's world-class scientists, contact Director of Public Policy, Kevin Wilson at (301) 347-9300.