May 24, 2005

The Honorable John Carey Senate Committee on Finance and Financial Institutions State House Columbus, OH 43215

Dear Mr. Chairman:

On behalf of the Biotechnology Industry Organization (BIO), I am writing to encourage you to consider the very significant promise that embryonic stem cell research offers thousands of Ohioans. There is a provision in House Bill 66 that stipulates that Third Frontier funding not be spent on stem cell research activities. We support as broad a research funding spectrum as possible for Third Frontier resources. We would encourage committee members to support funding for stem cell research as well as other promising areas of bioscience research in the states.

BIO represents more than 1,100 biotechnology companies, academic institutions, state biotechnology centers and related organizations across the United States and 31 other nations. BIO members are involved in the research and development of healthcare, agricultural, industrial and environmental biotechnology products. In Ohio, we work closely with Omeris to represent the more than 200 biotechnology and lifescience companies and nearly 40,000 employees working to develop cures for a variety of diseases.

While we categorically oppose human reproductive cloning, we are working closely with researchers and patient communities to promote the very promising field of stem cell research. Human stem cells, both adult and embryonic, hold significant potential to help scientists develop treatments and regenerate damaged or diseased cells.

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Medical research has taken quantum leaps in the past decade. Scientists are identifying and developing innovative cures to deadly and debilitating diseases. According the National Institutes of Health and the National Academies of Science, human embryonic stem (HES) cells have shown incredible promise toward developing breakthrough treatments for a variety of intractable diseases including various cancers, kidney disease, diabetes, hepatitis, multiple sclerosis, Parkinson's, Alzheimer's and many other diseases. In fact, recent developments have demonstrated that human embryonic stem cells can be used to create insulin-producing cells that might help <u>cure</u> type-1 diabetes.

Stem cells are unique in that they can become any cell in the body. Working with these cells, scientists can harness "undifferentiated" human stem cells and direct them to become a variety of specialized cells. Once enough specialized cells have been developed they can then be used to repair spinal cord injuries; regenerate damaged brain cells for people suffering from Parkinson's or Alzheimer's disease; regenerate muscle or organ tissue as well as skin cells to treat burn victims.

We are not alone in our support for preserving all forms of stem cell research. The National Academy of Sciences (NAS) in a recent report concluded:

"The scientific and medical considerations that justify a ban on human reproductive cloning at this time are not applicable to nuclear transplantation to produce stem cells. Because of the considerable potential for developing new medical therapies to treat life-threatening diseases and advancing biomedical knowledge, the panel supported the conclusion of a previous National Academies' report—*Stem Cells and the Future of Regenerative Medicine*—that recommends that <u>biomedical research using nuclear transplantation to produce</u> <u>stem cells be permitted</u>."

Many states are aggressively pursuing legislation to attract biotechnology companies. California, the state with the largest biotechnology industry presence in the country, recognizes the promise of this technology. The state became the first in the nation to create a safe harbor for all forms of stem cell research, and with the passage for Proposition 71, the state will allocate \$3 billion to stem cell

research over the next 10 years. Nearly a dozen states are now considering legislation to **Senator Carey Page -3-**

either create safe harbors and/or allocate funding for stem cell research.

States like California and New Jersey are keenly aware of this competition and have put in place programs to promote industry development. The passage of their respective stem cell research laws are prime examples of their commitment to biomedical research.

Ohio has a strong foundation of world renowned research institutions including Ohio University, the Cleveland Clinic, Case Western Reserve, as well as a number of biotechnology companies. With the passage of the Third Frontier Action Fund, Ohio has received 12 awards specific to the biosciences and nearly \$9.4 million in funds have been distributed throughout the state.

Ohio has always been a staunch supporter of the advancement of biomedical research and promoting industry growth. Promoting research is imperative if the state is to continue to compete with other states in the country. We strongly urge you to preserve the opportunity to use Third Frontier Initiative funding to conduct this promising research in the state.

Thank you for your consideration. I would be happy to answer any questions or provide additional information to the committee.

Sincerely,

Patrick M. Kelly Vice President, State Government Relations Biotechnology Industry Organization