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## **FASEB Scientist to Tell Senate Human Embryonic Stem Cell Research Is Crawling Like a Caterpillar**

**Bethesda, Md.** — Adult stem cell researcher and pediatric oncologist, Curt I. Civin, M.D., of the Johns Hopkins University School of Medicine will testify today on the progress of human embryonic stem cell research before the Senate Appropriations Subcommittee on Labor, Health and Human Services, and Education. More than a year after President Bush's decision to allow federal funding for limited human embryonic stem cell research, Dr. Civin will tell the Subcommittee that he is still waiting to receive the first of a number of stem cell lines needed to advance his research.

“Embryonic stem cell research is crawling like a caterpillar,” Dr. Civin said. “It may hold the key to expanding proven adult stem cell therapies to many more patients, but administrative and technical barriers are impeding the progress of this vital research. I am heartened by National Institutes of Health (NIH) Director Elias Zerhouni's commitment to reducing these barriers and encouraging more scientists to enter the field. I am hopeful that the new NIH Stem Cell Task Force will produce meaningful results,” Dr. Civin continued.

Since the President's decision last year, human embryonic stem cell research has been impeded by a number of factors. Scientists need access to multiple lines to produce meaningful research results. NIH has identified less than one hundred embryonic stem cell lines eligible for federal research funds and little information is known about any of these lines. Until last week, only one source of stem cell lines on NIH's Stem Cell Registry, the Wisconsin Alumni Research Foundation, was shipping any of its lines to scientists. Last week, the University of California, San Francisco announced that it has begun shipping one of its two lines. The available lines can cost up to \$5,000, an amount 50 to 100 times greater than other cell lines. In addition to this upfront cost, material transfer agreements must be negotiated to guarantee the owners a share of future discoveries. Significant technical hurdles exist as well.

Dr. Civin believes that embryonic stem cell research can save lives by providing insight into the biology of adult stem cells. Despite their successes, scientists have been unable to grow adult stem cells easily or in sufficient quantities to treat large numbers of patients. Outside the body, adult stem cells rarely multiply without differentiating. In contrast, embryonic stem cells appear to have an unlimited capacity to grow in the laboratory. Dr. Civin believes that by studying embryonic stem cells in the lab, he can facilitate the therapeutic use of adult stem cells in the clinic.

Dr. Civin was awarded the National Inventor of the Year Award in 1999 for his discovery of the CD34 stem cell molecule that allows identification and isolation of rare human bone marrow stem cells capable of reconstituting the blood and immune systems. The discovery is used to treat thousands of patients suffering from the toxic effects of cancer therapy, and many others. It is also widely used as a tool in stem cell research.

Dr. Civin is Samuelson Professor of Oncology & 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. He is a member of the American Society for Clinical Investigation, a FASEB member society.

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*FASEB is comprised of 21 societies with more than 60,000 members, making it the largest coalition of biomedical research associations in the United States. FASEB's mission is to enhance the ability of biomedical and life scientists to improve—through their research—the health, well-being and productivity of all people. FASEB serves the interests of these scientists in those areas related to public policy, facilitates coalition activities among Member Societies and disseminates information on biological research through scientific conferences and publications.*