

Yale University

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The General Assembly
The State of Connecticut

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Distinguished members of the Legislature:

As a stem cell researcher in the state of Connecticut and Director of Yale Stem Cell Center, I am writing to urge the state leadership to maintain the \$10M stem cell funding in the 2010 fiscal year budget. I fully understand the difficult financial situation that our state is facing, but I strongly feel that eliminating the stem cell funding is not the right solution to the problem. Instead, it will take away one of the most needed investments that boosts the state economy. Specifically, I'd like to use Yale as an example to list three important reasons for funding stem cell research in the state.

1. This funding has effectively leveraged other resources to boost the state economy. At Yale, over 70% of the \$17.3M in state funds, after initial investment in equipment, has been used for salary support, and has created 128 full-time and part-time positions in Connecticut. Moreover, this funding allowed us to attract \$39M of research support from Yale and \$7M research funds from outside the state, and this number is rapidly growing. These resources continue to generate more jobs and to develop our state's competitive edge in economic development.
2. This funding has attracted top stem cell talent to the State. Largely because of this funding, Yale has recruited 11 faculty members and 33 high level non-faculty researchers in the past three years. This recruitment has helped to build Connecticut into one of the best stem cell communities in the world. As a side note, these new recruits have or are in the process of purchasing homes in CT. This activity by the new faculty members alone is estimated to bring about \$5M of purchases to the Connecticut housing market.
3. This funding has built a vibrant stem cell research community at Yale. Because of the State funding, the number of human embryonic stem cell research labs at Yale has rapidly grown from 1 to 29 labs in just three years. Today, the Yale Stem Cell Center is a world-class center with 51 research laboratories working on embryonic and adult stem cells for eventual clinical applications, and we have made many exciting discoveries. For example, recently, we have discovered that our genome not only contains about 25,000 known genes that make proteins but also another larger number of genes that make at least 50,000 small RNA molecules. Some of these new genes may control stem cells. This huge number of new genes represents a new paradigm for drug discovery and cancer control. As another example, Yale has made significant progress in using stem cells to treat Parkinson's disease not only in mice and rats, and now also in monkeys. These discoveries have helped to position Connecticut as a leader in stem cell research, and to lay a solid foundation for developing a new biotech industry in the state.

In summary, the stem cell fund has effectively positioned Connecticut as a leader in stem cell research, has led to immediate economic impact by attracting other financial resources to the state, and has laid a solid foundation for developing a new biotech industry in the state. Elimination of the 2010 funding would abruptly disrupt this momentum and infrastructure, and could cause the past investments to go to waste. The impact of this budget reduction will be much more than \$10M.

Thank you very much for your consideration!

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