

HB 289/ SB 399: Economic Development - Maryland Stem Cell Research Act – Revisions
February 7, 2011- House Health and Government Operations Committee
February 23, 2012- Senate Finance Committee

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I am Curt Civin, MD and I lead the University of Maryland School of Medicine's Center for Stem Cell Biology & Regenerative Medicine. Although I understand the sponsor's intent to "support innovative biotechnology research and development in the State that has the potential to create sustainable job growth," the existing law and funds are critically important to seed basic research for both public and private entities which will lead to both new cures and new jobs in biotechnology and manufacturing. **I ask you to remember the cures that will bring the jobs.**

I ask you to preserve the original purpose of the Maryland Stem Cell Research Act: to provide support for "State-funded stem cell research and cures through grants and loans to public and private entities in the State." HB 289 would change the focus of the Maryland Stem Cell Research Act to expand it to include biotechnologies commercialization. The bill requires that "at least one-third of the grants or loans awarded each year be awarded to for-profit companies headquartered in the State." The FY 2013 State Operating Budget request includes a limited pool of State resources. The funding request for FY 13 is \$10.4 million, down from the \$12.4 million appropriated in FY 12.

Like many physicians and scientists, I believe that stem cell research is the greatest challenge in science, with the biggest likely payoff in medicine. The big scientific questions are: 'How does one cell develop into every system, organ, tissue and cell in our entire bodies?' 'What are the exact molecular processes by which a cell "decides" to give rise to more stem cells, to become one type of cell or another, or to stop growing once an organ is perfectly formed?'

And from this knowledge, how can we as scientists and physicians 'wake up sleeping stem cells' to grow a new organ, or to heal, say a spinal cord injury or a heart attack? How can we reverse or prevent the 'errors' made by stem cells that result in devastating diseases like Cancers, Heart Failure, Parkinsons, Diabetes, Alzheimers, and many, many others?

There is a new energy in Maryland that is providing the results of putting science and medicine together for cures. In my own lab, we have found new drugs with exciting potential to kill the roots of the cancer, the cancer stem cells that cause cancer to recur.

It now looks like stem cells can improve the failing heart. The University of Maryland School of Medicine has recruited Sunjay Kaushal MD, PhD. He is a pediatric cardiac surgeon and has found stem cells in parts of children's hearts. Sunjay has applied to the Maryland Stem Cell Research Fund (MSCRF) for clinical trial support to expand these cells outside the body and give them back to children with congenital heart disease and heart failure.

We have launched a group of many bright young star stem cell researchers. We are proud and lucky to have these physicians and scientists here for us in Maryland. Their new talent and energy is developing new cures. Their brilliant work will generate jobs as well as cures. **Please don't forget the cures that will yield new jobs. I urge you to oppose the legislation.**