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## **More capital needed to get stem cells on market**

### **Advocates urge more government support, partnerships between companies**

by Lindsey Robbins | Staff Writer

Research has shown that regenerative cells may one day be used to treat conditions ranging from wounds to traumatic brain injuries, but these treatments may never reach the market if capital for commercialization efforts stays scarce, say stem cell advocates.

Speaking before a panel at the World Stem Cell Summit at the Baltimore Convention Center on Wednesday, Linda Powers, managing director at Toucan Capital Corp. of Bethesda, said the best thing the federal government can do for stem cell companies is set up a financing facility to translate research into marketable products and services.

"If patients knew how much research is sitting on the shelf, they'd go crazy," Powers said after the panel presentation, emphasizing that while commercializing the results of current research might not yield perfect or permanent solutions, it could help patients today.

Powers, a member of the Maryland Stem Cell Research Commission, also praised Gov. Martin O'Malley (D) for including specific language for translation funding in the \$20 million he pledged for stem cell research each year until 2020.

"This allows for seamless evolution," she said. "It's never enough, but we're so grateful that O'Malley has been able to hang onto this much money."

Panelists urged partnerships among companies working with stem cells, alluding to the cooperation between Osiris Therapeutics of Columbia and Genzyme Corp. of Cambridge, Mass. Powers referred to Osiris as the "granddaddy" of stem cell research companies in Maryland. Among the handful of Maryland stem cell companies is Theradigm of Baltimore, a portfolio company of Powers' investment company that is developing treatments for central nervous system disorders.

Partnerships can help the industry with funding until success stories manage to draw capital from pharmaceutical companies, biotech companies and other large investors, panelists said.

Powers said the industry should also look to distribution and shipping companies such as UPS for investments, as they could become a significant part of the sector once products are ready to go.

"It's a step change, no doubt," said Chris Mason of University College London, adding that stem cell research takes science beyond simply treating symptoms to actually curing the problem. He said the world needs to start viewing living cells as therapeutic products.

The state's stem cell commission, administered by the Maryland Technology Development Corp., also hopes to encourage partnerships among academia and the private sector through incentives in its grant

programs, said Karen Rothenberg, the commission's chairwoman. She said universities and companies could collaborate on skill sets, financing, clinical trials, loans to the industry, and distributing and marketing results. Rothenberg said academia could also teach businesses about applying for grants, as universities are more familiar with the process.

She also wants to dismiss the dichotomy between research and business, arguing that research is the business, bringing millions of dollars into Maryland each year.

"The categories are getting grayer," Rothenberg said.

The state commission has \$12.4 million for its programs this year, less than in the past, as budget constraints have taken their toll. Rothenberg said this means the state will have to find new money to support the newly announced partnership with the California Institute for Regenerative Medicine.

Another concern among stem cell companies include risky patents, as many expire by the time companies are ready to market a product, although extensions are available and might protect companies while generics manufacturers deal with regulatory issues.

Panelists agreed patents can be especially tricky in the industry, as it is difficult to tell whether a company is dealing with the same cells because of constantly emerging methods of differentiation.

To which Powers told attendees: "Get over it."

Powers said that Maryland is "gigantic" on stem cell research and doing all right with commercializing, but there is still room to grow.

"Maryland has a thriving stem cell community," she said.