



## Business

# Homegrown talent

01:00 AM EST on Thursday, January 18, 2007

By Arthur Kimball-Stanley

Journal Staff Writer

PROVIDENCE — Governor Carcieri's Science and Technology Advisory Council yesterday granted \$1.5 million to Rhode Island scientists as part of the state's continuing effort to grow its research and development sector.

The prizes, allocated under the Rhode Island Research Alliance at the council's first meeting of the year, were given to 32 scientists from 15 research organizations across the state. Projects demonstrating collaborative efforts among Rhode Island institutions were given priority, as part of the advisory council's effort to promote cooperation and exchange among scientific disciplines. The hope, according to council members, is that by getting the state's scientists and researchers talking and working with one another, an environment of innovation can be fostered.

"This is about supporting world-class research," Carcieri said. "It's about investing in an innovation economy and growing higher-wage jobs for Rhode Islanders."

Toys and Technologies for Rehabilitation, a group made up of a doctor from Hasbro Children's Hospital, an engineer from Brown University and a designer from the Rhode Island School of Design, was among the grant recipients. Their project, according to team members, is one example of how important collaboration can be in implementing an idea and how difficult that can be, given the usual competition among research organizations for money.

"I don't think the idea could ever have moved to this point if we had not been working with such a distinguished group of professors and researchers from such a variety of fields," said Dr. Karen Kerman, director of pediatric rehabilitation services at Hasbro. "Having an engineer and an industrial designer made a huge difference in making it all happen."

Last year Kerman met Prof. Joseph Crisco, who teaches engineering at Brown, and told him about an idea she had to improve rehabilitation techniques for children with neurological conditions by using specially designed toys.

Crisco had been teaching a course with Prof. Khipra Nichols, who worked at RISD, and suggested that the next class take on Kerman's design challenge. One semester later, the combined RISD and Brown class had created interactive toys that they hoped would not only engage children, but also be able to record the amount of time children spend using them.

The team also enlisted the help of Afferent, a small Rhode Island technology company, which agreed to let

the team use its sensory enhancement technology. The new toys would not only entertain children, but would also help increase the flow of sensory information traveling from muscles, joints and skin to the body's control centers.

“All collaborative efforts between researchers are hard because usually everyone is so focused on their own work,” Crisco said. “Funding for projects is usually really tight, and that encourages specialization. It means that there is often a lot of risk in collaboration in that it drains resources from labs.”

The model of financing being supported by the Research Alliance grants, Crisco went on, helps turn around that tendency. The nearly \$200,000 his team received, he said, will help them move the project to the next phase and begin to develop better toy prototypes.

If the kind of partnerships that created Toys and Technologies for Rehabilitation continue, said Jeff Seeman, co-chair of the advisory council, it will go a long way in creating the kind of foundation that will reinvigorate Rhode Island's economy. “If we do this every year,” Seeman said, “I promise you that in the next 10 to 15 years you will see an increase in federal funding in Rhode Island and you will see an ever increasing number of companies in the state.”

The Advisory Council also rolled out its recommendations for 2007, asking the state's leadership to continue to support research and development activity by continuing to help finance collaborative activity through research grants.

[akstanle@projo.com](mailto:akstanle@projo.com)