

# GSA BUSINESS

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## **Clemson ideas could spawn new businesses**

*Biomedical breakthroughs draw response from investors*

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Clemson University's biomedical brainpower is drawing attention from the business community as the GSA area continues to see its economy evolve.

More than \$500,000 worth of deals are in the works for technologies developed by Clemson's bioengineering department. The concepts and products were presented at a Greenville symposium on biomedical entrepreneurship in early November.

"It's kind of a launching pad for getting the ideas out of the university and into commercialization," says John Moore, vice president for economic development and small business at the Greater Greenville Chamber of Commerce.

Clemson's research foundation teamed up with the bioengineering department for the symposium, where five technologies were presented. The university is looking to sell product licenses for three, while two others are already affiliated with local startups.

Licensing allows Clemson and its faculty to earn money off their ideas while providing an opportunity for university innovations to reach the public.

"Everything comes down to licensing," says Clemson technology commercialization officer Dr. Matt Gevaert, who organized the symposium. "Do we license them to big companies or do we license them to startups?"

The three ideas seeking licensing included:

- A device to treat stress incontinence. Incontinence treatment is a \$20 billion consumer market, according to Clemson research.
- Carbon nanotubes that can deliver medication to targeted cells, such as in cancer treatment. Clemson estimates nanotechnology will be a \$2.6 trillion industry within 10 years.
- A method for breaking down water-insoluble drugs into smaller particles, which could improve their effectiveness. Clemson estimates drug delivery to be a \$20 billion market worldwide.

The two startups spawned from the school are:

- Inhibix Imaging Systems LLC, a Clemson creator of medical imaging devices used in diagnosis.
- Kiyatec, LLC, a Pendleton provider of products used in laboratory research.

Since the symposium, four of the five (Clemson would not specify which) have already exchanged written proposals with parties interested in funding further research or licensing the technologies.

"We are aware of at least seven such proposals for the four technologies and consider this to be a great success," Gevaert says.

South Carolina is among dozens of states that have made biotechnology an economic development priority.

"Unlike other states that are trying to do biotech from scratch," Gevaert says, "we've got something to build on."

Clemson's bioengineering breakthroughs were somewhat "under the radar screen" of the local business community, according to Moore. "It starts giving us some depth in the bio area, where we may have been a little lacking in self-confidence," he says.

The quick and heavy interest in the technologies presented at the symposium has long-term implications for Clemson.

"A lot of what a venture capitalist will look at when he looks at a university is whether anyone has invested before," says Gevaert, a chemist with several patents of his own.

Biotech venture capital is a highly specialized field, according to John Warner, a Greenville venture capitalist and an organizer of InnoVenture, an annual event that brings investors to the Upstate to see presentations by business startups. "They're looking for business people. They're looking for entrepreneurs. They're looking for angel investors," he says of Clemson's recent efforts. "It's a good first step."

Warner points out that many of the future high-impact companies spawned by Clemson, Furman or other Upstate universities will come from the minds of students. University research spinoffs are a good way of keeping bright students in the community after graduation, according to Dr. Caron St. John, director of Clemson's Spiro Center for Entrepreneurial Leadership.

"The doctoral students will tell you they like it here and they want to stay here," she says. But without job opportunities related to their field, "they would have been gone."

Only recently have the state's research universities (Clemson, University of South Carolina, Medical University of South Carolina) been encouraged to commercialize research, according to St. John. There is an economic benefit to fostering startups, she says.

"About 80 percent of the startup companies that take a technology forward from a university stay in that state," she says.

And if those companies make it big, there are residual benefits from the flow of earnings back into the community, according to Moore. "It's under the big umbrella of entrepreneurship and developing home-grown companies that can have a global impact," he says.