

Bolstering Biotech

With bioscience activity heating up in Georgia, the Advanced Technology Development Center (ATDC) has opened a new incubator devoted exclusively to the commercialization of life-science innovations.

The 22,000-square-foot ATDC Biosciences Center features laboratories equipped with fume hoods and sinks, the kind of space that is important for bioscience companies.

The new incubator is located within the

Ford Environmental Science & Technology (ES&T) Building, a 287,000-square foot research center that houses a variety of Georgia Tech life-science programs ranging from chemical engineering to biology. The location is convenient for scientists who are commercializing technology developed at Georgia Tech.

The Biosciences Center already houses six companies, including the Aderans Research Institute, CardioMEMS, Focal Point Microsystems, Orthonics, Stheno Corp., and Vivonetics.

gtresearchnews.gatech.edu/newsrelease/est.htm



Gary Meek

Research Scientist Omar Alexander works in the laboratory of Vivonetics, a cancer diagnostics firm.

The Forest and the Trees

The forest products industry plays a major role in the U.S. economy and is particularly important in Georgia where more than 24 million acres are planted in commercial pine, and forest products represent a \$30 billion statewide economic impact.

Demand for forest products is expected to grow; experts estimate that by 2010 the global demand for paper will increase by as much as 50 percent. But the chance that this demand can be economically met by the United States is becoming less likely as the country faces lower-cost competition from Asia and South America.

Scientists with the Institute of Paper Science and Technology (IPST) at Georgia Tech are hoping to put biotech solutions to work to maintain the competitiveness of Southern pine forests. Research at IPST is focusing on loblolly pine, the dominant softwood in the Southeast. One of the most promising approaches under investigation is somatic embryogenesis, which will allow replication of selected high-value, fast-growing trees. Here, scientists can duplicate the natural process that occurs in the seed and create multiple copies of superior seedlings, ultimately resulting in the ability to grow more economically competitive timber and fiber. According to IPST researchers, the technique allows for the rapid germination of thousands of trees from one seed.

Currently, a few companies in Georgia are using this technology to produce loblolly seedlings, but IPST points out that additional work remains before the technology's full potential can be realized.

www.ipst.gatech.edu/

Attracting Investors

Investors from around the country got a look at the hottest new technologies emerging from the Georgia Institute of Technology's research labs during Technology Day 2003, held in December.

Organized by Georgia Tech's VentureLab, the half-day event showcased eight technologies expected to have significant market potential. Briefings highlighted applications, market analyses, value propositions and business models.

For some innovations, companies have already been formed,

products built and significant revenue opportunities identified. For other technologies, markets have been identified and pre-production prototypes exist.

The event, which attracted nearly 100 attendees, showcased eight companies, including: Innovative Fluidics, HiFiWi, Focal Point Microsystems, GTronix, Conditioned Based Logistics Technology (CoBaLt), 4-D Imaging, Guided Systems Technologies and Jacket Micro Devices.

www.venturelab.gatech.edu/january142004.htm



Gary Meek

Research Engineer Sam Heffington observes a liquid atomization cooling process that has been licensed to Innovative Fluidics.

What's Cookin'

Researchers from the Georgia Tech Research Institute and Georgia Tech's School of Electrical and Computer Engineering are working with Flowers Bakery in **Villa Rica** to produce the perfect sandwich bun.

A computerized imaging system in development will automate the company's inspection process, which ultimately will save money and time by increasing yield and reducing waste. The system will automatically record data to generate production reports that will allow statistical process control.

In a second phase, researchers are working to extend the automation by providing mechanisms to compensate for oven-related disturbances in heat and humidity that can affect product quality.

Although these systems offer great commercial promise to the baking industry, the technology has generic aspects that could be adapted to other food processing industries. gtresearchnews.gatech.edu/newsrelease/bakery.htm.

Toward Pike's Peak

Economic development in **Pike County** is climbing following a community economic development readiness assessment by the Economic Development Institute (EDI) in fall 2002. Action has been taken on several recommendations arising from the assessment, including fostering entrepreneurship, exploring ways to recognize existing industry and attracting greater involvement on the part of area cities.

Efforts are underway for business recognition and volunteer recruitment programs, and the chamber of commerce will include an economic development committee in its 2004

The Training Effect

The Federal Law Enforcement Training Center (FLETC) in **Brunswick** plays a crucial role in training people for positions in police and sheriffs' departments, homeland security agencies and other law enforcement entities. But FLETC also has a big impact on its locale—**Glynn** and adjacent counties—as determined by a recent Economic Development Institute study.

Through an analysis conducted for the Brunswick and Glynn County Development Authority, EDI researchers found that FLETC supports more than 5,000 jobs, a figure expected to climb to nearly 7,800 as the facility expands its operations. Attendees, who numbered more than 22,000 in fiscal year 2002, spend money in the community, especially on their "free" days. Employee spending also supports local businesses, and FLETC has contracted with local companies to supply products and services, which further affects the economy. Total business revenue supported in the area was about \$418.1 million in 2002, a figure expected to increase to about \$607.4 million. www.ceds.gatech.edu

program of work. The county held its first annual developers day, well-attended by state and regional partners. Also, the development authority issued press releases to raise awareness about economic development, and it produced an EDI-recommended community information packet.

In terms of numbers, the development authority's budget has risen from \$18,000 in 2001 to \$90,000 in 2003-04. And when the chamber sponsored its first local government roundtable last year, it garnered 100 percent participation from the county and all five cities in it. www.ceds.gatech.edu

Around the State

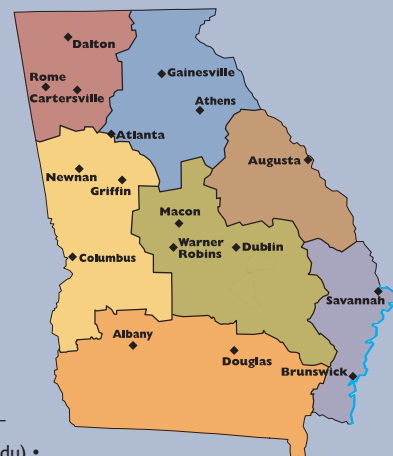
■ When Turner's Fine Furniture decided to build a new distribution center, it asked Georgia Tech to help determine the best location from which to serve current and proposed stores. Field staff calculated the cost-effectiveness of siting the center in 12 cities based on projected store sales and truckload inventory. **Tifton** had the lowest transportation costs, and the firm opened its new center there last fall.

■ Georgia Tech helped an **Augusta** manufacturer of golf cars and utility vehicles that was experiencing traffic congestion in its plant. A Tech team conducted a traffic flow study and made some 40 recommendations to improve safety. E-Z-GO Textron implemented the recommendations and estimates that, in addition to creating a safer plant, the changes reduced warehousing costs by 20 percent.

■ Because most new products fail from lack of analysis and screening and because successful new product advances can mean higher profits and wages, Georgia Tech designed a seminar for firms to learn about risks, rewards, strategies and pitfalls related to new product development. The first seminar, held in **LaGrange**, drew some 20 people from a half dozen companies.

Georgia Tech's Regional Office Network

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Athens	706.542.8900	Gainesville	770.531.4550
Augusta	706.737.1414	Griffin	770.254.7592
Brunswick	912.634.4860	Macon	478.751.6190
Cartersville	770.387.4002	Newnan	770.254.7592
Columbus	706.649.1661	Rome	706.295.6008
Dalton	706.272.2702	Savannah	912.651.2551
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• Assistance to Georgia businesses, communities and economic developers: www.edi.gatech.edu • Assistance to start-up technology companies: www.atdc.org •

• Commercialization assistance to Georgia Tech faculty: www.venturelab.gatech.edu • Applied research: www.gttri.gatech.edu •

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