

GEORGIA BY THE NUMBERS

Perhaps best known to filmgoers as the setting for *Gone With the Wind*, Georgia also has a legacy of enterprise. Coca-Cola was first introduced in Atlanta, the state's largest city, in 1886, and the company is still a significant employer. Known for its peaches, the state also has a booming tourism trade that capitalizes on attractions such as Civil War battlefields and the lazy Southern charms of the coastal city Savannah. In the past decade, Georgia has begun to forge a reputation as a biosciences centre, building on its science strengths as home to the US Centers for Disease Control and Prevention in Atlanta and several major universities, including Emory University and the Georgia Institute of Technology in Atlanta, and the University of Georgia in Athens.

Q&A



Jeffrey Koplan, vice-president for global health at Emory University and former director of the Centers for Disease Control and Prevention (CDC), both in Atlanta, discusses Georgia's life-sciences and public-health sectors.

Is the CDC a good place for early-career biomedical or public-health researchers?

There is none better. Every job there was the best I ever had. It is a different environment from a university; it offers topical challenges with huge practical import. Researchers deal with real-world problems, such as last year's swine-flu pandemic. Early-career researchers can enhance their body of work, expand their technical skills and produce lots of papers.

What are the downsides to working there?

There is no tenure track. And if someone wants to pursue an investigator-initiated idea, a university may be better. But the CDC does encourage scientists to ask questions and push boundaries. Sometimes people seek external funding to expand on what they're doing.

How does the CDC fit into Georgia's science enterprise?

A federal agency that does science in the midst of academia and business is a catalyst for collaborations. People come from the CDC to Emory to teach, and Emory scientists might have an office here but a lab there. Many former Emory postdocs work at the CDC.

Does the mission of academic public-health research differ from that of the CDC?

The government's research is field oriented and focuses on serving communities. At a university, researchers seek new knowledge and ways to assess chemical hazards or the environment. It is a whole different animal.

What are the strengths and weaknesses of Georgia's university system?

The state has a critical mass of institutions that have partnerships and collaborations with each other, and the universities have a good start on biotechnology. We'd like to be a San Francisco or a Boston. But we're not there yet.

Where are the opportunities in Georgia for young bioscience researchers?

Biomedical research and health-care science are growth areas, and that won't stop. Opportunities abound in academia and the private sector throughout the state as well as at the CDC, from postdoctoral fellowships to staff research positions to faculty appointments in life and physical sciences. ■

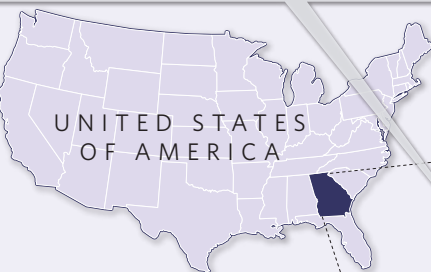
Interview and statistics by Karen Kaplan.

DRUG AND PHARMACEUTICAL SECTOR

- In 2009, Georgia companies conducted 610 clinical trials on drug candidates. Of the total, 116 trials were for cancer drugs, 124 for heart-disease medications, 111 for treatments of neurological disorders and 70 for nutritional and metabolic disorders.
- The University of Georgia has a drug candidate for treatment of hepatitis B in mid-stage clinical trials in China. It is already approved in Korea and the Philippines.
- In 2008, some 1,199 biosciences companies were registered in the state, ranking it in seventh place nationwide. Of those, 46 were in the drug and pharmaceutical sector, representing 1.6% of US drug and pharmaceutical companies that year.

RESEARCH AND ACADEMIA

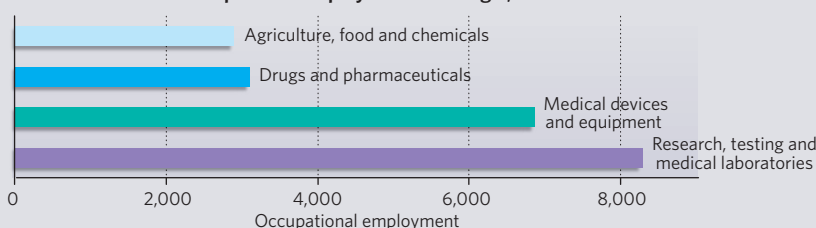
- The University of Georgia, founded in 1785 as the nation's first chartered state university, has spun off 100 bioscience start-ups. In 2008, it ranked third nationwide for the number of rights or licences to grant the rights — which include patents and copyrights — that it signed to provide access to intellectual property. That year, the University of California system ranked first.
- In 2009, Georgia's academic institutions garnered US\$504 million in funding from the National Institutes of Health (NIH), ranking the state 16th nationwide. In 2004, the state received \$372 million in NIH funding, which put it 24th.
- Georgia ranked 12th nationwide in 2008 for spending on academic bioscience research and development, totalling \$840 million — 55% of the state's total academic research and development spending for the year.



BUSINESS AND COMMERCE

- Biomedical researchers in Georgia had a median annual salary of \$130,650 in 2007. The median for zoologists and other wildlife biologists in the state was \$42,060.
- The Georgia Research Alliance in Atlanta helps run a \$19.3-million private venture-capital fund that invests in Georgia-based bioscience, energy and materials start-up companies. Since 2005, it has helped launch some 40 bioscience companies.
- Hartsfield-Jackson Atlanta International Airport was the world's busiest airport in terms of passengers and flights in 2008: more than 90 million passengers passed through on 978,824 flights. London's Heathrow Airport has more international passenger traffic.

Bioscience-related occupational employment in Georgia, 2008



SOURCES: GEORGIA BIO; BIO; GEORGIA INNOVATION CRESCENT; UNIV. GEORGIA; GRA; US AIRPORTS COUNCIL INT.; US BUREAU OF LABOR STATISTICS