

**WAKE**

Wake County  
Economic Development

# WHERE TECHNOLOGIES CONVERGE, OPPORTUNITIES EMERGE.

More than 600 Life Science companies call North Carolina home. Nearly 70% are in the Research Triangle.

## Here's Why:



Industry  
Convergence



World-Class  
Resources



Talent  
Pipeline



Knowledge-Based  
Economy



**#1 Metro for Life Science Clusters**  
*Business Facilities*





## INDUSTRY CONVERGENCE

### LIFE SCIENCE. BIG DATA. OPEN SOURCE. AGRIBUSINESS. MATERIALS SCIENCE.

From transportation to food to healthcare, these seemingly different technologies converge to solve the problems of the future. Wake County, part of North Carolina's Research Triangle Region, brings together the research, the talent, and the community to scale your business and to move solutions to market. Examples of industry convergence include:

### HEALTHCARE AND INFORMATION TECHNOLOGY

Software engineers and healthcare practitioners collaborate to improve patient outcomes while reducing costs. The Triangle's assets include a large development team for IBM's Watson, among other global innovations.

### GENE EDITING

Locus Bioscience is putting CRISPR technology to work to develop next-generation antimicrobials. The company's platform has potential to extend to a wide range of applications, including better crops and animal proteins.

### AGRICULTURE AND MEDICINE

Advanced Animal Diagnostics created a diagnostic for mastitis that can be used on the farm to detect the disease in dairy cows. The company is one of the 80-plus ag biotech firms in North Carolina, headed by agribusiness giants Syngenta, Bayer CropScience and BASF.

## WORLD-CLASS RESOURCES

The life science community has access to industry, financial and policy experts through many organizations, including:

The **North Carolina Biotechnology Center** invests in technology development, supports company growth and connects resources to make North Carolina a global life sciences leader. Learn more: [ncbiotech.org](http://ncbiotech.org)

The **North Carolina Biosciences Organization** is the trade association for North Carolina's life science industry and the state affiliate of the Biotechnology Innovation Organization. Learn more: [ncbioscience.net](http://ncbioscience.net)

The **North Carolina Technology Association** advances the state's technology industry by connecting providers, consumers and stakeholders; advocating for policy issues that affect the tech sector; and promoting lifelong learning and the creation of a world-class workforce. Learn more: [nctechnology.org](http://nctechnology.org)

The N.C. Department of Commerce's **Board of Science, Technology and Innovation** runs an SBIR/STTR matching program. The board and the **Small Business and Technology Development Centers** across North Carolina support an environment where established businesses and emerging entrepreneurs can succeed. Learn more: [nccommerce.com](http://nccommerce.com) and [sbtcd.org](http://sbtcd.org)

The Triangle has a wealth of entrepreneurial talent that thrives in numerous incubators and accelerators across the region. Prominent among them is the **Ag Tech Accelerator**, a one-stop-shop with resources to start, house, finance and mentor innovative ag tech companies. Short-term office leases at **the NC Biotech Center's** RTP location are also available to relocating companies. Learn more: [agtechaccelerator.com](http://agtechaccelerator.com) and [ncbiotech.org/landingpad](http://ncbiotech.org/landingpad)

## ADVANCED MANUFACTURING CENTER

An outstanding example of industry convergence is the Advanced Manufacturing Institute at NC State. This \$140 million initiative is revolutionizing the energy efficiency of electronic devices, power grids and electric vehicles. The center unites academic, government and industry partners to develop components that are smaller, faster and more efficient than semiconductors made from silicon. Learn more: [ncsu.edu/power](http://ncsu.edu/power)



**WAKE COUNTY SITS IN THE MIDDLE OF ONE OF THE WORLD'S LARGEST LIFE SCIENCE CLUSTERS, WHICH CONSISTS OF MORE THAN 500 COMPANIES EMPLOYING OVER 38,000 HIGHLY SKILLED WORKERS.**



## TALENT PIPELINE

North Carolina has long concentrated on developing innovative, flexible resources to train talent effectively. In the Research Triangle, connections between universities and community colleges, and between post-graduate degrees and MBA programs, abound.

The Triangle's universities confer more than 2,000 bachelor's degrees each year in biological, agricultural and natural sciences. Graduate degrees number more than 900, and statewide, the total number of science, math and engineering degrees has risen by a third over the last five years.

But the region's strength isn't just numbers; academic programs anticipate the convergence of disciplines:

**NC State's life science and IT muscle** combines into a graduate program for functional genomics and bioinformatics.

**Duke University, in addition to its long roster of medical and scientific graduate degrees,** offers a master's degree in bioethics and science policy, to work at the intersection of science, technology, and policy.

**UNC and NC State launched a joint biomedical engineering program.** The program includes regenerative medicine, tissue engineering, biomedical microdevices, pharma-coengineering and drug safety.



## INDUSTRY-DRIVEN TRAINING

North Carolina's cooperative approach to life science workforce development led to the creation of NCBioImpact. The effort includes major participation from industry representatives, the UNC system and NC Community Colleges. Highlights include BioNetwork (Community Colleges), the Golden LEAF Biomanufacturing Training and Education Center (NC State), and the Biomanufacturing Research institute and Technology Enterprise (NC Central). Learn more: [ncbioimpact.org](http://ncbioimpact.org)



## KNOWLEDGE-BASED ECONOMY

Technology-based economic development relies on a consistent supply of new ideas. Companies need strong research partners to solve new problems that arise. The Research Triangle Region gives your company proximity to:

### FOUR RESEARCH UNIVERSITIES

Drought-resistant crops. Tissue engineering. Technology to protect soldiers. Not to mention new medicines and therapies for cancer and a range of diseases. New ideas abound at **NC State, UNC, Duke** and **NC Central**. And Triangle universities are home to four recent Nobel Prize winners.

### TWO MEDICAL AND TWO PHARMACY SCHOOLS

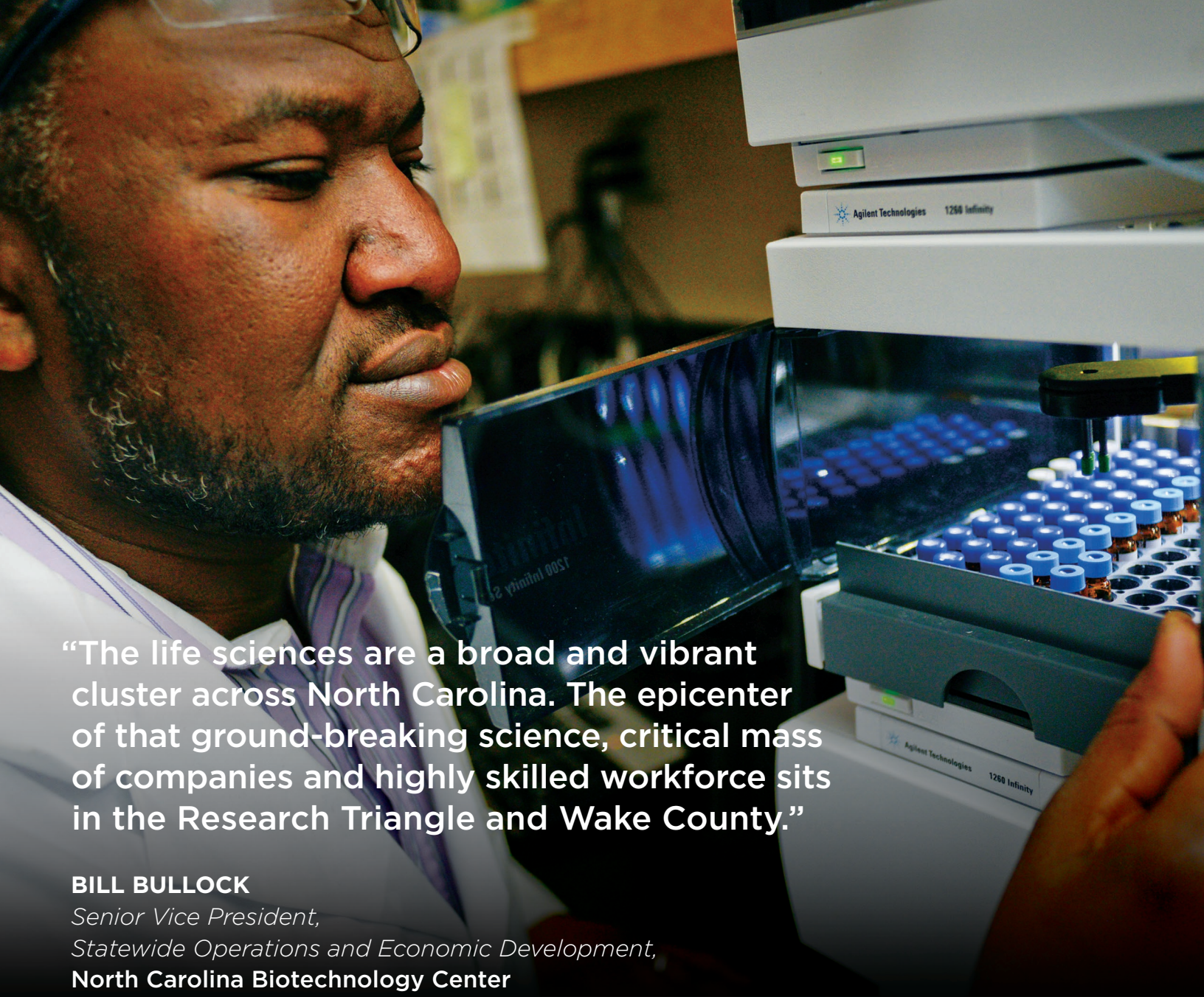
**UNC's** and **Duke's** medical schools and university medical centers provide a base for cutting-edge medical research.

UNC's Eshelman School of Pharmacy school tops national rankings and aligns its program of research with drug discovery and development cycles. The school collaborates with industry partners, and its research has started two dozen-plus companies. **Campbell University** offers professional masters in clinical research as well as training in pharmacology. It also recently added an osteopathic medicine program to address the growing gap of rural physicians.

### A COLLEGE OF VETERINARY MEDICINE

At **NC State's** College of Veterinary Medicine, researchers investigate the interconnections between animal and human health. More than 20 animal species are included in research, and scientists investigate critical issues in biomedical, agricultural, and biological sciences.





“The life sciences are a broad and vibrant cluster across North Carolina. The epicenter of that ground-breaking science, critical mass of companies and highly skilled workforce sits in the Research Triangle and Wake County.”

**BILL BULLOCK**

*Senior Vice President,  
Statewide Operations and Economic Development,  
North Carolina Biotechnology Center*

To learn more, visit [www.raleigh-wake.org/biotech](http://www.raleigh-wake.org/biotech)



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*Photos courtesy of North Carolina State University*