North Carolina Life Sciences

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#### About

NCBiotech created this North Carolina Life Sciences messaging document to provide a cohesive set of messages that will support economic development efforts across the state and drive global recognition of the state as a place that accelerates success in the life sciences.

#### Key Theme

#### North Carolina accelerates success in the life sciences.

**How to Use This Document**

The key messages in this document can be used by anyone in North Carolina who is marketing the sector. It will allow individual organizations to tell their story, while reinforcing North Carolina's overall life sciences message. By uniting our voices and messages, we can leverage our limited resources to put North Carolina top of mind.

To use the messages below, feel free to copy and paste them into your marketing materials. Also add facts and figures into the context of the messages to highlight your region and to support your efforts. Designed icons, graphics and NC Life Sciences Alliance logos are also available for your use.

#### Positioning Statement

North Carolina is a leading life sciences cluster. The state’s best-practice training programs deliver highly skilled talent to accelerate your product development, production, and delivery. Local and state partners work together to solve challenges specific to life sciences businesses. North Carolina has the lowest corporate income tax rate of the 44 states that charge it and a sales and use tax exemption for manufacturing and R&D equipment. A top cluster, thriving ecosystem, and strong business environment make North Carolina the right place for your life sciences endeavor.

*Regional positioning statement can be added as the second sentence or at the end.*

#### Cluster Facts

North Carolina has:

* 790 life sciences companies, including
  + 96 international companies representing 23 countries
* 70,000 life sciences employees; and
* 2,500 support and related companies, from construction companies to staffing firms to IP attorneys.

Strong roster of **production and manufacturing companies**

* Over 31,000 employees at 140 life sciences manufacturing companies, with global leaders that include Baxter, Biogen, Eli Lilly, Grifols, GSK, Merck, Novo Nordisk, Novozymes, Pfizer, Seqirus, Thermo Fisher and more.
* Products include small-molecule therapeutics, monoclonal antibodies, industrial enzymes, vaccines, and cell- and gene-based therapies (next section).
* The state has 94 biopharma manufacturing sites, employing 28,000 people.
* NC is one of the top states in biologics manufacturing employees in the U.S. (NAICS code 325414).

A leader in **gene and cell therapy**

* Beginning with announcements from Pfizer and bluebird bio in 2017, companies promised to invest $1.1 billion and create 1,600 jobs through 2020.
* The [roster of related companies](https://directory.ncbiotech.org/company-directory?core_capabilities=10291&paem_hhc=10501) includes Audentes (an Astellas company), Beam Therapeutics, Biogen, Cellectis, Jaguar Gene Therapy, Kriya Therapeutics, Novartis Gene Therapies, Sio Gene Therapies, StrideBio and Taysha Gene Therapies.
* Home-grown entrepreneurial companies AskBio, Atsena Therapeutics, Locus Biosciences, Precision BioSciences and Stride Bio continue to push cell and gene therapies forward.
* International research leaders at NC universities include Jude Samulski (UNC), Rodolphe Barrangou (NC State), Aravind Asokan (Duke), and Charles Gersbach (Duke).

Largest global concentration of **contract research & testing organizations**

* Over 25,000 employees at 160-plus companies across N.C.
* World’s first clinical trials management company started on the UNC campus. Today it’s IQVIA, with 75,000 global employees in 100 countries.
  + Other global leaders in this class of CRO with North Carolina headquarters include PPD, part of Thermo Fisher Scientific; PRA Health Sciences; Parexel; and Syneos Health.
* Labcorp leads the diagnostic and testing space from its headquarters in Burlington.

North Carolina’s **ag tech strengths** include crop production and animal health.

* 165 ag tech companies with more than 9,000 employees
  + Industry giants like Syngenta, BASF and Novozymes
  + Largest global cluster of plant gene-editing/CRISPR companies
* 2 land-grant universities and a network of 16 extension stations
* [Plant Sciences Initiative](https://cals.ncsu.edu/psi/) at NC State brings together corporate, academic and government researchers to solve challenges in crop production in a changing global climate

*Partners should add region-specific talking points here.*

#### Research Strengths

* 16-campus UNC system (including your regional universities)
* Duke, Wake Forest, and Campbell lead the private university life sciences programs
* RTP is home to the National Institute for Environmental Health Sciences (NIEHS) and EPA.
* The Triangle region has the [highest per-capita NIH funding](https://www.ncbiotech.org/news/triangle-leads-nation-nih-capita-funding) (Durham-Chapel Hill MSA)

**Research Countdown**

5 – Medical Schools (Duke, East Carolina, UNC-Chapel Hill, Wake Forest, Campbell Osteopathic Medicine; Proposed med school at UNC-Charlotte)

4 – Pharmacy Schools (Campbell, East Carolina, High Point, UNC-Chapel Hill)

3 – Comprehensive Cancer Centers (Duke, UNC-Chapel Hill, Wake Forest)

2 – Land Grant Universities (NC State and NC A&T)

1 – College of Veterinary Medicine (NC State)

#### Workforce Strengths

* 70,000 life sciences workers currently, with 4,900 life sciences and 4,500 engineering degrees awarded annually.
* A [full complement](https://www.ncbiotech.org/cro#panel2) of training programs to prepare students for clinical research careers.
* NCBioImpact, an industry/education collaboration to guide training programs
  + BTEC at NC State – hands on, pilot-scale training
  + BRITE at NC Central – drug discovery and translational research
  + NC BioNetwork at NC Community Colleges – statewide delivery of process technician fundamentals and custom training
  + NC PSN – ECU/Pitt Community College partnership for oral solid dose training on industry standard equipment

##### Is it life science or life sciences?

NCBiotech uses life sciences. The consensus among community members is that this suggests more than just therapeutics. Specifically, agricultural technologies and diagnostics more easily fall under the plural term.