

# North Carolina: a global leader in biomanufacturing

130

production and manufacturing



27,000

production and manufacturing employees

\$2.7B

planned investment



Sources: NCBiotech Company Directory, 2020; Public News Announcements

Seqirus

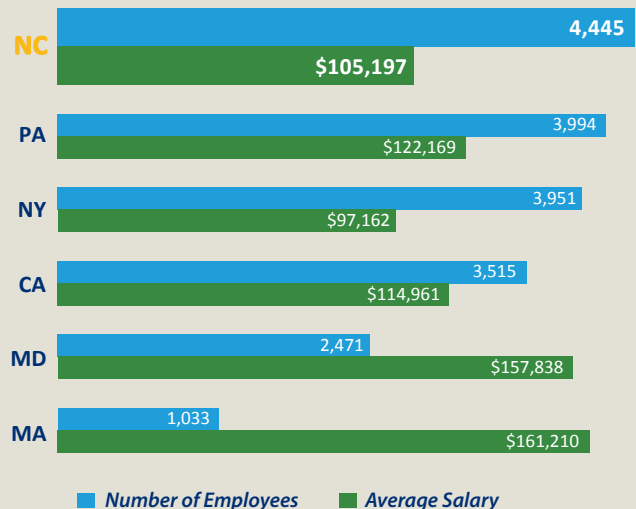
**Job-ready Biomanufacturing Workforce.** A diverse manufacturing base requires a highly skilled workforce. North Carolina's statewide collaboration, NCBioImpact, delivers that talent.

**North Carolina** is home to more biological product manufacturing employees than any other state. Add to this strong talent base our low business costs—average salaries, real estate and taxes—and North Carolina's place is clear as the best value in biomanufacturing.

This value proposition built a diverse core of traditional capabilities and an agility that embraces the newest technology platforms. Strengths include insulin (**Novo Nordisk**), plasma-derived proteins (**Grifols**), gene therapies (**Pfizer, bluebird bio, AveXis**), vaccines (**Seqirus, Pfizer**), and antibodies and oligonucleotides (**Biogen**). A complete list of North Carolina's biomanufacturers can be found at [directory.ncbiotech.org](http://directory.ncbiotech.org).

Training the teams that run these unique facilities are **NCBioImpact**, the **Biomanufacturing Training and Education Center (BTEC)**, the **Biomanufacturing Research Institute and Technology Enterprise (BRITE)** and **BioNetwork**. This partnership links the biopharma industry, North Carolina's universities and its community college system to create a global best-practice continuum of hands-on biomanufacturing training. With 4,600 biological and biomedical degrees awarded annually, North Carolina has the talent to meet your needs.

## Biological product manufacturing employees and their average salaries\*



Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment and Wages ([www.bls.gov/data/](http://www.bls.gov/data/)), 2018.

\*Leading states

# North Carolina: Producing biomanufacturing success



## Success Brings Growth

**Novo Nordisk** is in the midst of a \$2 billion expansion of its production facility for diabetes medicines in Clayton, southeast of Raleigh. The company plans another \$65 million expansion in late 2018. At completion of these expansion projects, Novo Nordisk will employ 1,500 full-time workers in 1.4 million square feet at this 264-acre campus.

## World-class Training

Demand for plasma-derived medicines is growing, and **Grifols** is investing \$210 million in new purification, filling, and fractionation facilities. Through the **Customized Training Program**, Grifols engaged Johnston Community College's Workforce Development Center, a 30,000-square-foot facility that provides an array of training from technical skills to team building.



## The Next Transformation

As gene therapy products gain regulatory approvals, North Carolina is taking the lead in manufacturing these potentially transformative therapeutics.

- Following **Pfizer's** \$100 million investment to add gene therapy capabilities to its Sanford facility, the company partnered with NCBiotech to create the **Pfizer-NCBiotech Distinguished Postdoctoral Fellowship in Gene Therapy**.
- Cambridge-based **bluebird bio** is establishing an RTP site to produce lentiviral vector for its gene therapies targeting rare diseases and certain cancers.
- **AveXis**, a Novartis company, will manufacture AVXS-101, its proprietary gene therapy to treat spinal muscular atrophy, in RTP.



## Medical Milestone, Made in NC

**Seqirus**, the world's second-largest influenza vaccine company, continues to expand its manufacturing site in Holly Springs. Located 24 miles south of Research Triangle Park, the Holly Springs site produces vaccines, including the **FLUCELVAX QUADRIVALENT**, via a novel cell culture process, allowing for faster scale-up of production.

## Innovative Growth, Deep Roots

**Biogen** has invested more than \$125 million in its RTP campuses since 2016. Over its 23 years in North Carolina, Biogen's campuses have expanded to include biologics, oral solid dose, and oligonucleotide synthesis manufacturing facilities, its Global Business Center, as well as a community lab to provide hands-on research experience to middle and high school students.

*Scaling production of your biological or pharmaceutical product requires specialized knowledge. The right location, in a strong ecosystem, supported by experienced companies and run by skilled talent, can pay big dividends over time. Let NCBiotech help you find the perfect place in North Carolina to transform your company.*

## North Carolina Biotechnology Center

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