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**Randall Johnson**  
February 12, 2026

Presented by

**North Carolina  
Biotechnology Center®**

# **Leadership North Carolina Economic Development Session**

**North Carolina:  
A Global Life Sciences Leader**

[ncbiotech.org](http://ncbiotech.org)

# North Carolina

## Biotech Development is **Economic** Development

- \$82 billion annual life sciences industry impact in NC
- 860+ BioSci Companies employing over 76,000 people
- 2500+ additional life science support companies
- 214,000 total jobs in biotech and biotech-related fields
- \$121,000+ average salary for biotech jobs
- \$2.5 billion annually in state and local revenues

**North Carolina  
Biotechnology Center**



# North Carolina Biotechnology Center®

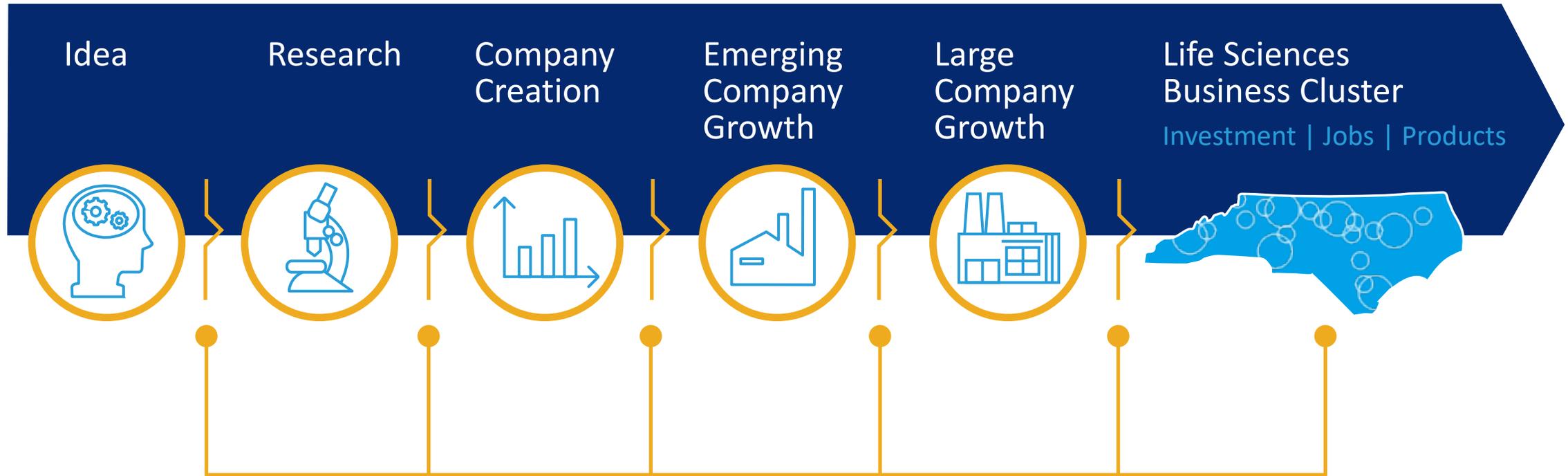
## OUR MISSION

We create North Carolina's competitive advantage in the life sciences, engaging partners, maximizing opportunities, and delivering solutions to Accelerate innovation, investment, and job creation.

## OUR VISION

North Carolina: a global life sciences leader.

# NCBiotech Programs, Tools, Resources, and Initiatives from Idea to Global Impact

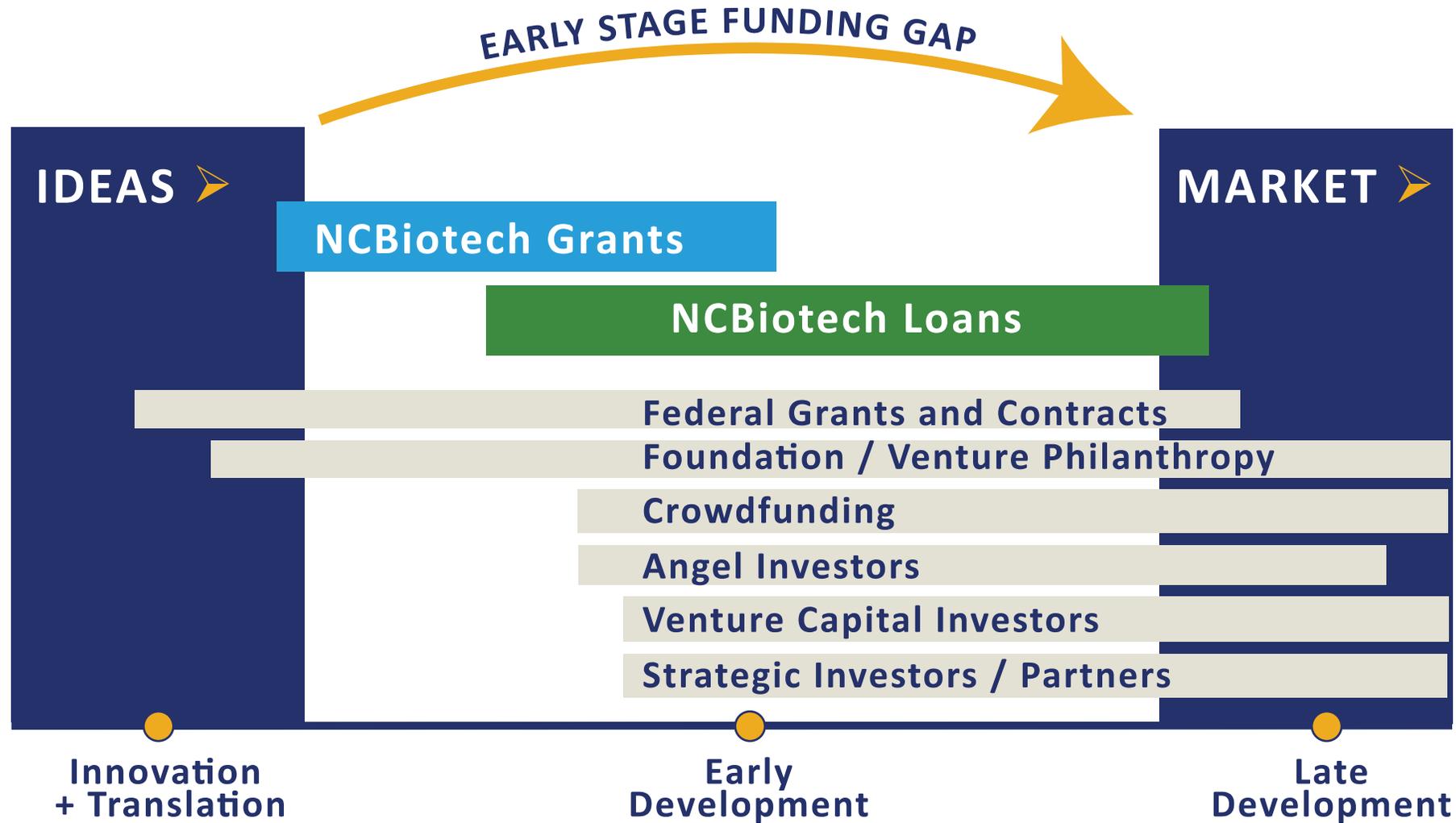


NCBiotech activities and funding support pipeline for growth

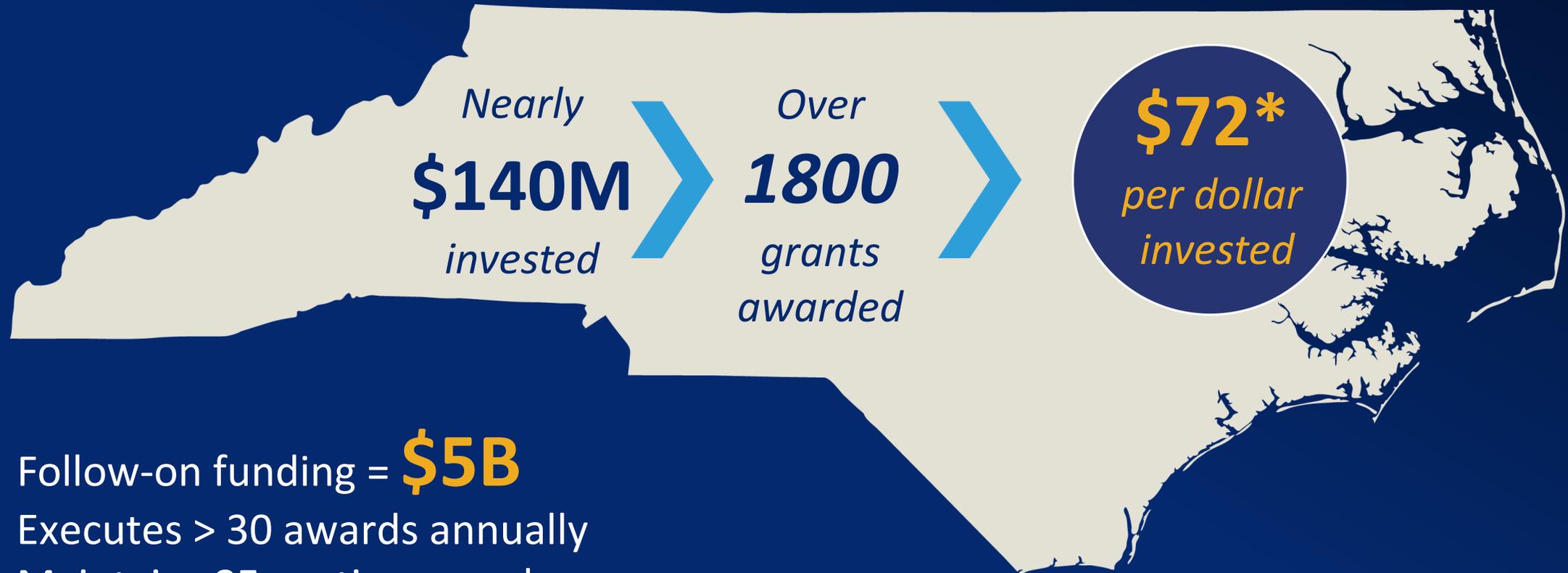
# Research Strengths

- **North Carolina has 5 R1 universities - Duke, East Carolina University, NC State, UNC-Chapel Hill, and UNC Charlotte;**
- **3 R2 universities – NC A&T, UNC Wilmington, and Appalachian State**
- **16 universities in the UNC system**
- **Duke, Wake Forest and Campbell lead private university life sciences programs.**
- **RTP is home to the National Institute for Environmental Health Sciences (NIEHS) and EPA.**
- **North Carolina ranked sixth in NIH funding with \$1.8 billion in awards to NC researchers, universities, institutions, and companies in FY2024.**

# NCBiotech programs help bridge the funding “gap”.



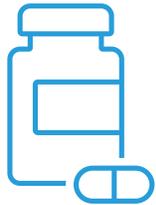
# Science and Technology Development: Grant Impacts



\* Follow-on funding = **\$5B**  
Executes > 30 awards annually  
Maintains **95+** active awards

# NCBiotech loans are awarded to companies to develop *cutting-edge* technologies in a variety of sectors.

## Therapeutics



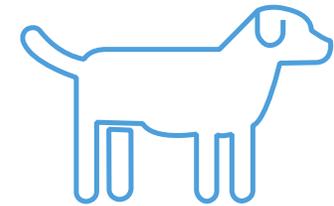
## Cell and gene therapy



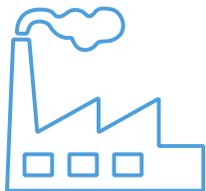
## Medical devices *(Class III/Class II non-exempt only)*



## Animal health



## Industrial biotechnology



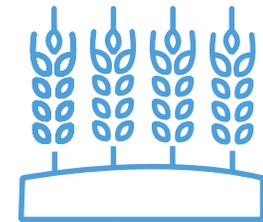
## Laboratory tools



## Diagnostics

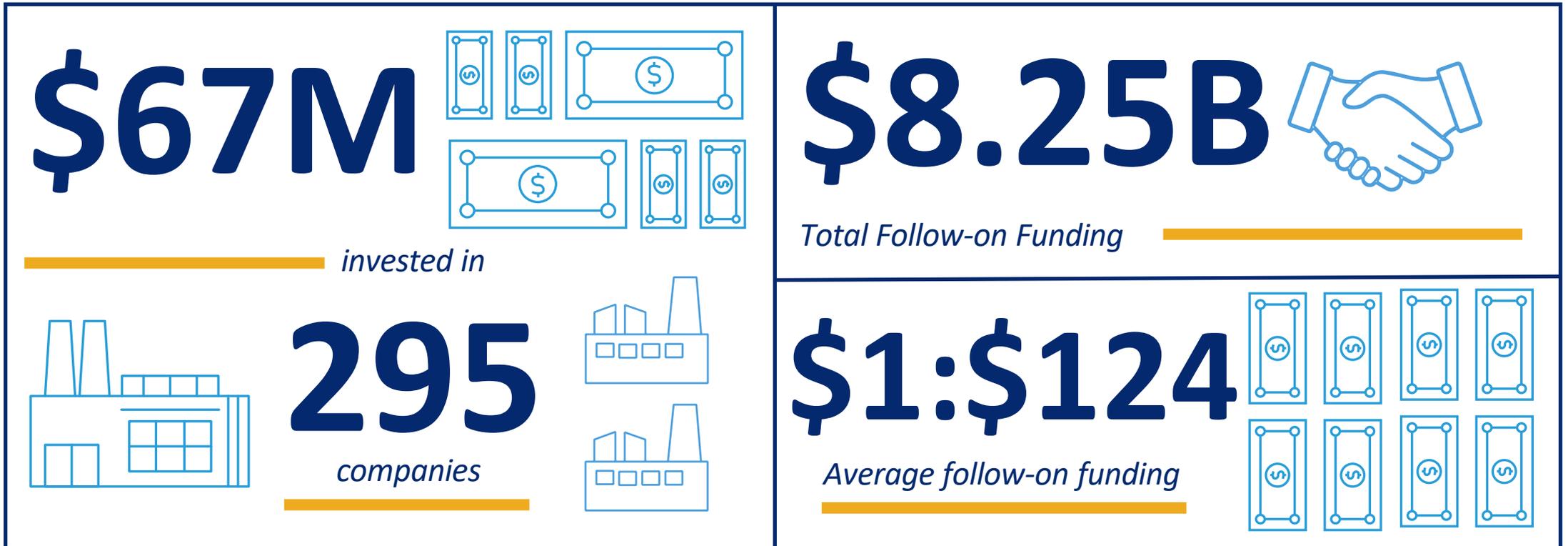


## Agricultural biotechnology



*NCBiotech administers a separate loan program for Ag Tech companies*

# The NCBiotech loan program has had a significant impact on North Carolina.



# Additional NCBiotech Programs and Resources

- **Life Sciences Economic Development**
  - **Retention, Expansion, and Attraction Program (REAP)**
- **Talent and Workforce Development**
  - **Ambassador Program**
  - **Military Outreach**
  - **Apprenticeships**
- **Life Sciences Intelligence, Business Insights, Company Directory**
- **Intellectual Exchange Groups**
- **Conference Center**
- **NC Biotech Venture Challenge and Startup Launch Pad**



**NCBIOTECH<sup>®</sup>**  
**VENTURE CHALLENGE**



# NC BIOTECH Venture Challenge

The North Carolina Biotechnology Center Southeastern Office

launched this

life-sciences-based,

innovation-focused venture challenge

*for Biotech Pioneers across North Carolina*

*bringing life science innovations to the marketplace.*

## Predicate

- *AI-driven early warning system that leverages the combined use of wearable biosensors and natural language processing to bring evidence-based, technology-enabled care to every patient, especially those in low-resource settings.*
- *Currently testing in Africa and South America*

# North Carolina's Life Sciences Community



**860** *companies, including*



**140** *production and manufacturing*

**76,000+**

*workforce*



**2,500**

*support companies*



*degrees awarded (2023-2024)*

**6,000+**

*Biological and Biomedical*



**4,900+**

*Engineering*

**#1**

2025



*Top State for Business*

**#2**

2025



*Biomanufacturing Hub*

## Strong roster of **production and manufacturing** companies

- **140 biopharma manufacturing sites, employing nearly 36,000 people.**
- **Global leading companies**
  - **Baxter, Biogen, Eli Lilly, Grifols, Merck, Novo Nordisk, Novonesis, Pfizer, CSL Seqirus, Thermo Fisher Scientific and more.**
- **Products include small-molecule therapeutics, monoclonal antibodies, industrial enzymes, vaccines, and cell- and gene-based therapies (next section).**

# A leader in gene and cell therapy

- **Leading companies include Astellas Gene Therapies, Beam Therapeutics, CARsgen Therapeutics, Cellectis, Encoded Therapeutics, Jaguar Gene Therapy, Kriya Therapeutics, Novartis Gene Therapies, Pfizer and Sarepta Therapeutics.**
- **Home-grown entrepreneurial companies: AskBio, Atsena Therapeutics, Locus Biosciences, and Precision BioSciences continue to push cell and gene therapies forward.**
- **International research leaders at N.C. universities include Jude Samulski (UNC), Rodolphe Barrangou (NC State), Aravind Asokan (Duke), and Charles Gersbach (Duke).**

# Largest global concentration of contract research & testing organizations

- More than 24,000 employees at 170+ companies across N.C.
- World's first clinical trials management company started on the UNC campus as Quintiles. Today it's IQVIA, with about 88,000 employees in more than 100 countries.
- Other global leaders in this class of CRO with North Carolina headquarters include PPD, part of Thermo Fisher Scientific; ICON; Parexel; and Syneos Health.
- Labcorp leads the diagnostic and testing space from its headquarters in Burlington.

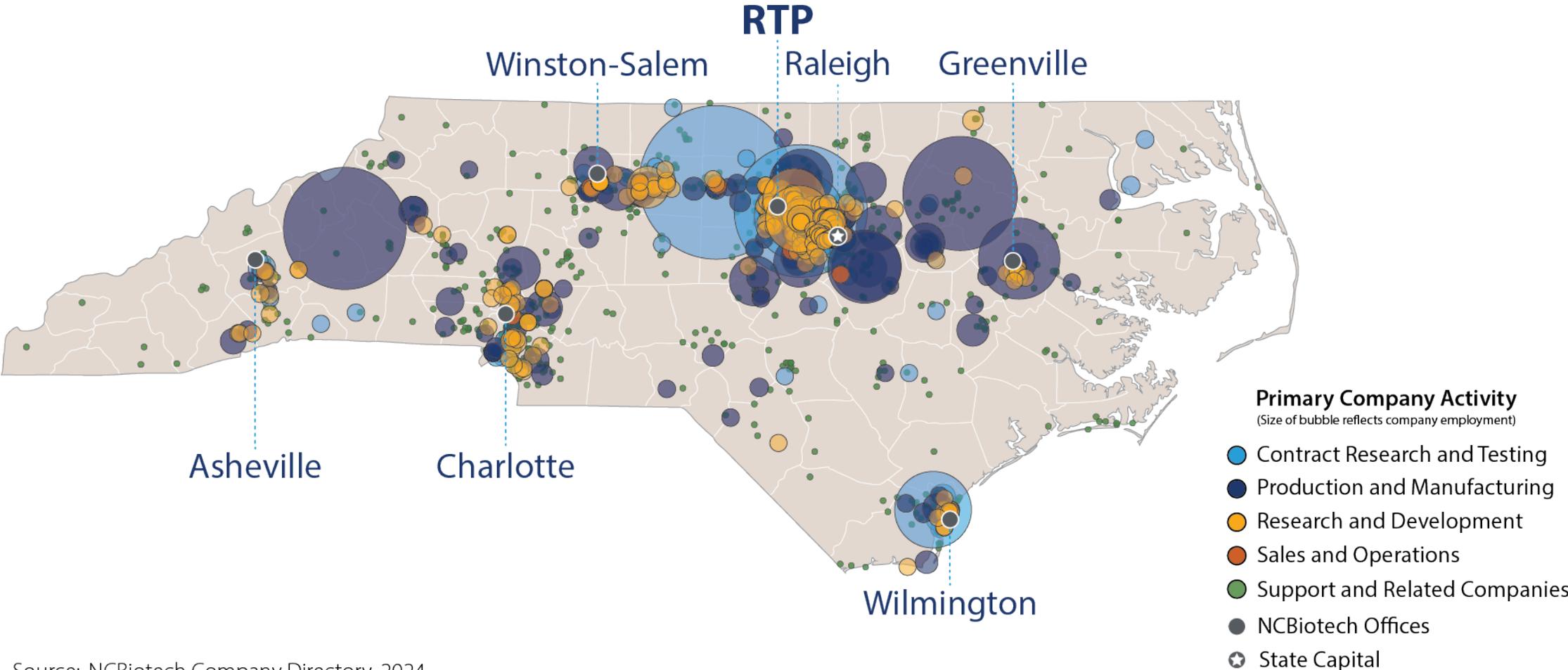
# North Carolina's **agtech strengths** include crop production and animal health.

- **Nearly 180+ agtech companies with more than 6,600 employees**
- **Industry giants like Syngenta, BASF and Novonosis**
- **Largest global cluster of plant gene-editing/CRISPR companies**
- **2 land-grant universities and a network of 18 research stations statewide**
- **Plant Sciences Initiative at NC State brings together corporate, academic and government researchers to solve challenges in crop production in a changing global climate**

# Life Sciences Cold Supply Chain Infrastructure Enhancements

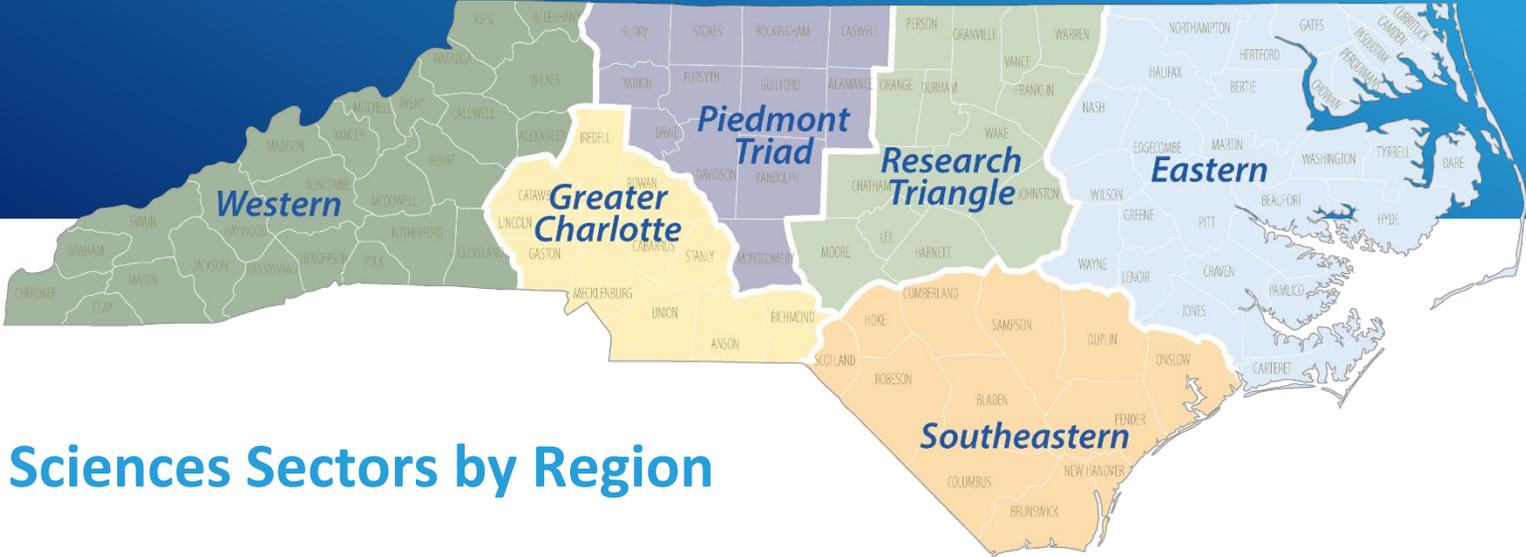
- **NC Port at Wilmington: \$25+ M investment in refrigerated plugs for life sciences product shipping**
- **Frontier Scientific Solutions: Wilmington-based cold supply chain and logistics company investing \$1.5 B in Life Sciences cold storage and direct cargo flight to Shannon, Ireland to improve transportation of life sciences products between the U.S. and Europe**

# Statewide Life Sciences Strengths



Source: NCBiotech Company Directory, 2024

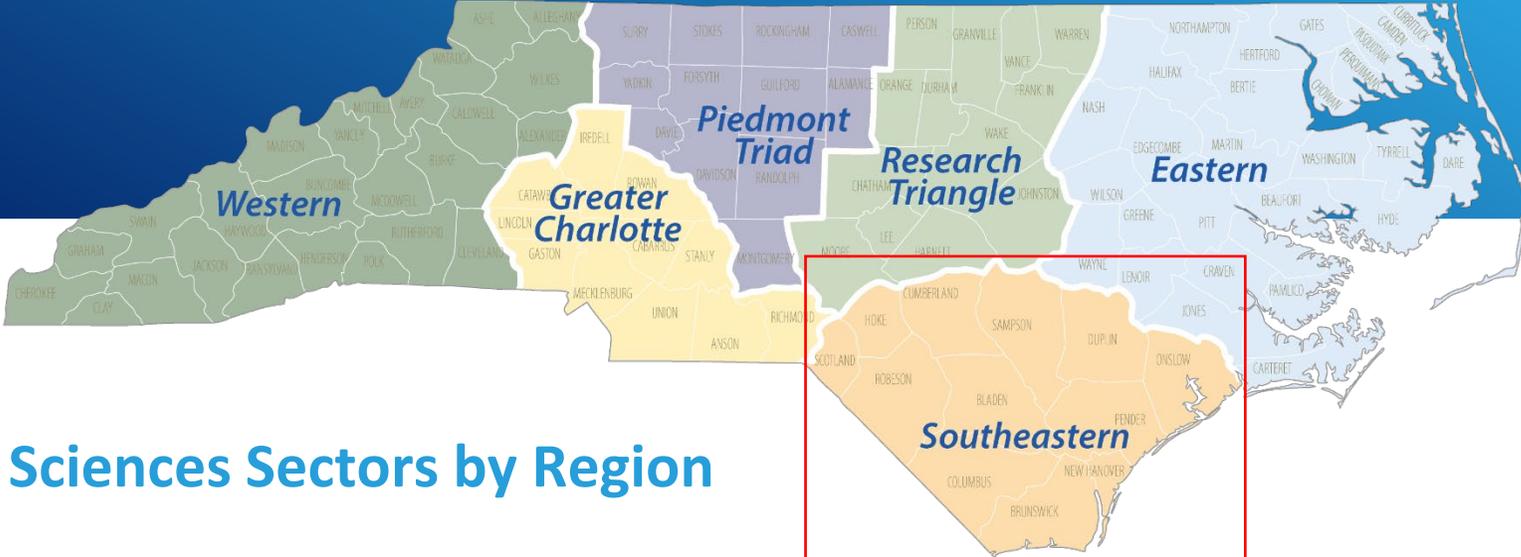
# Statewide Operations: Sectors Vary by Region



## North Carolina's Life Sciences Sectors by Region

<i><b>Western</b></i>	<i><b>Greater Charlotte</b></i>	<i><b>Piedmont Triad</b></i>	<i><b>Research Triangle</b></i>	<i><b>Southeastern</b></i>	<i><b>Eastern</b></i>
<ul style="list-style-type: none"> <li>• Natural Products</li> <li>• Agricultural Biotechnology</li> <li>• Fermentation Technologies</li> <li>• Medical Devices</li> <li>• Pharma Bioprocessing and Manufacturing</li> </ul>	<ul style="list-style-type: none"> <li>• Medical Devices</li> <li>• Nanobiotechnology</li> <li>• Bioinformatics</li> <li>• Biomedical Engineering</li> <li>• NC Research Campus</li> </ul>	<ul style="list-style-type: none"> <li>• Regenerative Medicine</li> <li>• Medical Devices</li> <li>• Nanobiotechnology</li> <li>• Pharma Bioprocessing and Manufacturing</li> <li>• Agricultural Biotechnology</li> </ul>	<ul style="list-style-type: none"> <li>• Pharma Bioprocessing and Manufacturing</li> <li>• Agricultural Biotechnology</li> <li>• Medical Devices</li> <li>• Research and Development</li> <li>• Clinical Research</li> </ul>	<ul style="list-style-type: none"> <li>• Marine Biotechnology</li> <li>• Biorenewables</li> <li>• Agricultural Biotechnology</li> <li>• Clinical Research</li> <li>• Contract Development and Manufacturing</li> </ul>	<ul style="list-style-type: none"> <li>• Pharma Bioprocessing and Manufacturing</li> <li>• Agricultural Biotechnology</li> <li>• Marine Biotechnology</li> </ul>

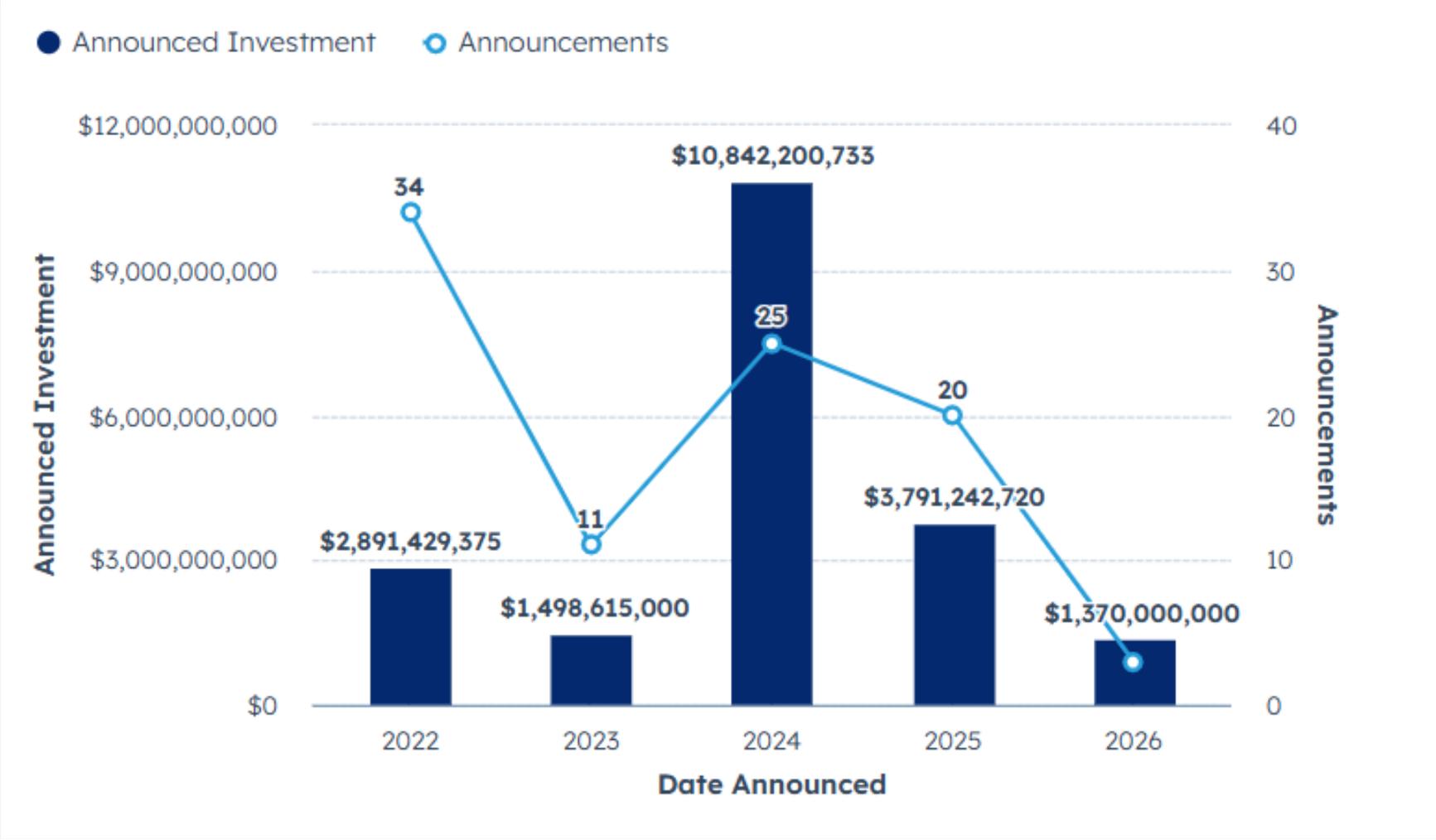
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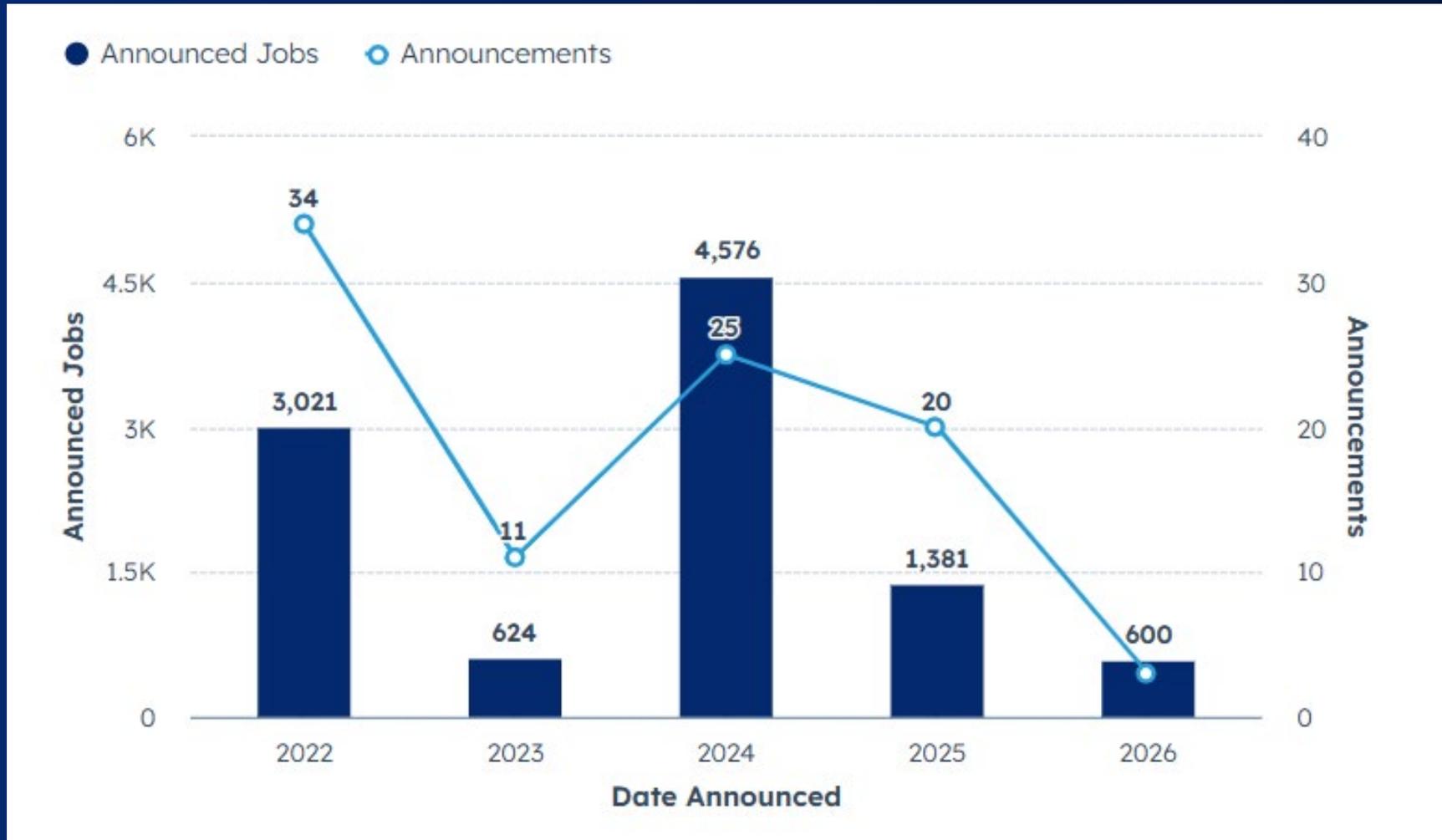
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# Investment Announced 2022-2026: Life Sciences and related companies



# Jobs Announced 2022-2026: Life Sciences and related companies



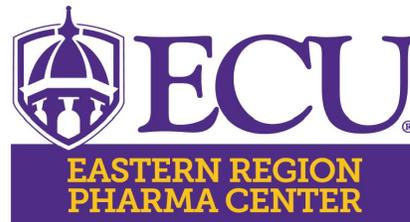
Academic, industry, & government collaborative to meet biotech and pharma workforce training needs. Partners include:



**NCBIOTECH**



NORTH CAROLINA  
**DEPARTMENT of  
COMMERCE**

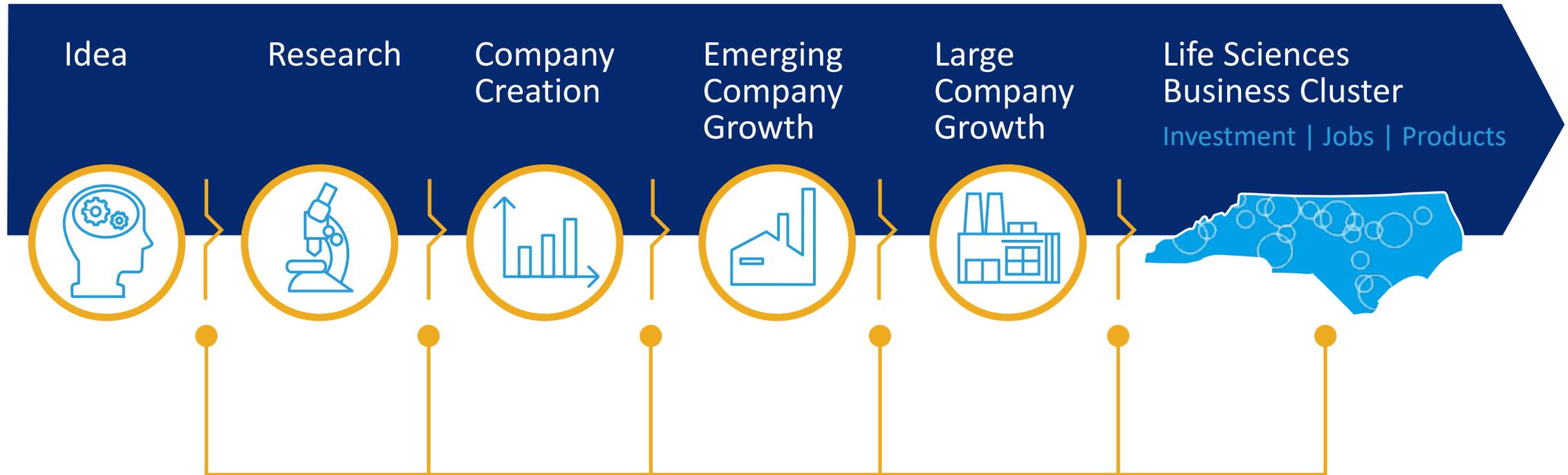


## 58 Community Colleges Creating Success



*from the mountains to the coast*

# NCBiotech Programs, Tools, Resources, and Initiatives from Idea to Global Impact



NCBiotech activities and funding support pipeline for growth

# North Carolina Biotechnology Center®

Strengthening and Growing  
our local, regional, and statewide  
life sciences ecosystems  
for Global Impact

# Thank you

Presented by

**North Carolina  
Biotechnology Center®**

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# North Carolina Biotechnology Center.®

Thank you

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