



RESEARCH TRIANGLE  
**AGTECH CLUSTER**

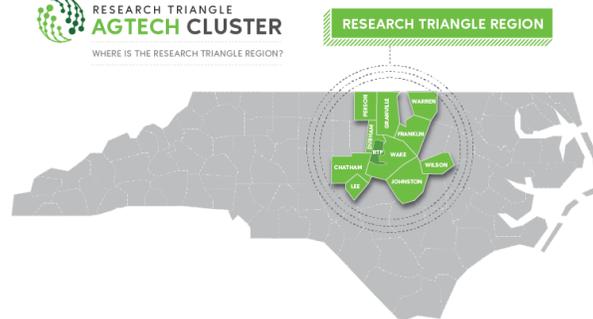
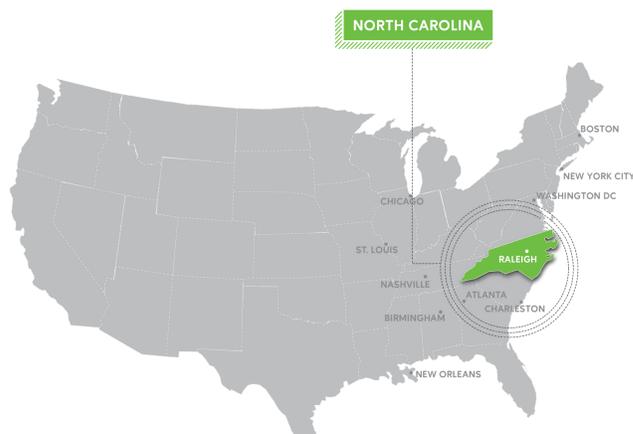


# ABOUT THE RESEARCH TRIANGLE AGTECH CLUSTER

The Research Triangle AgTech Cluster (RTAC) is an industry-led initiative of business, government, academic and nonprofit leaders focused on accelerating AgTech innovation and North Carolina's AgTech economy.

RTAC's mission is to attract top industry organization and world class talent, identify partnership and collaboration opportunities to solve the world's growing demands for food.

RTAC was created by the Research Triangle Regional Partnership, a public-private economic development organization focused on attracting new jobs and investment to the state of North Carolina and promoting the Research Triangle Region's business strengths.



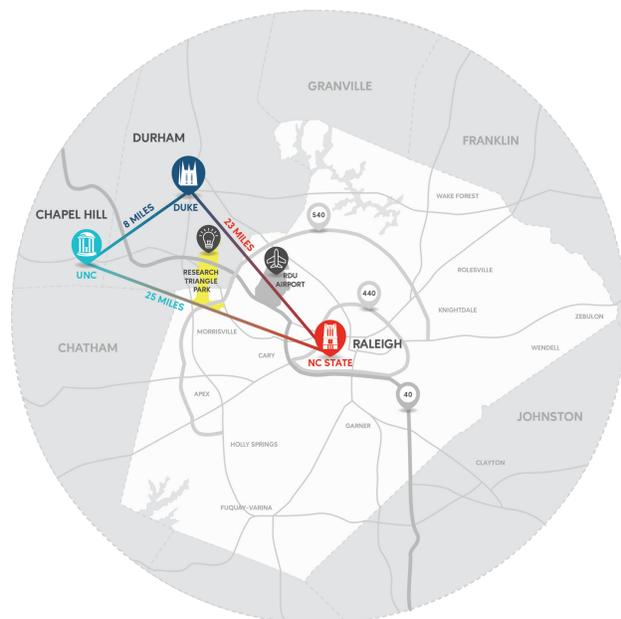
To learn more about RTAC or AgTech in the Research Triangle Region, North Carolina, please email [agtechcluster@researchtriangle.org](mailto:agtechcluster@researchtriangle.org).

## ROOTED IN INNOVATION

North Carolina is one of the most diversified agriculture states in the nation. With a rich agriculture history, the state continues to boast a strong farm culture, with nearly 48,000 farms growing over 80 different commodities and contributing \$87 billion to the state's economy. The agriculture industry accounts for 17% of the state's income and employs 17% of the workforce.

The state's agriculture legacy is rooted in tobacco and is still the number one tobacco producing state. North Carolina is also the largest producer of sweet potatoes, producing more than the next three states combined and ranks second in the production of hogs, turkeys and trout. The state ranks 4th nationally in net farm income, representing 4.2% of the total U.S. farm income.

North Carolina's strong foundation in agriculture paired with the Triangle Region's technical resources and innovative ecosystem continues to drive new research and development in agriculture and create a unique environment for the growing Agtech industry.



The Research Triangle gets its name from Research Triangle Park and three Tier 1 research universities—Duke University, North Carolina State University and University of North Carolina Chapel Hill—located only minutes apart.

The Triangle Region consistently tops national accolades. In 2018, the Research Triangle was ranked the 2nd fastest growing tech hub in the nation by CompTIA. Forbes ranked Durham-Chapel Hill 5th in the nation for the highest percentage of jobs STEM, with Raleigh coming in 8th, and CBRE named Raleigh the country's 10th top tech talent market.

# PLANT TECH COMPANIES

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# PLANT TECH COMPANIES

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# ANIMAL HEALTH COMPANIES

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## DIGITAL COMPANIES

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## RECENT PROJECTS

### AgTech Accelerator (RTP)

The new accelerator launched in 2016 intended to foster entrepreneurialism in agriculture. It is boosted by \$11.5 million in support from heavyweights in the agriculture and investment communities including Alexandria Real Estate Equities, Bayer, and Syngenta Ventures. It will also partner with leading academic centers throughout the country and with nearby research institutions Duke University, UNC Chapel Hill, and NC State University.



*Alexandria LaunchLabs-AgTech*

### Alexandria LaunchLabs – AgTech (RTP)

In 2019 Alexandria LaunchLabs, a sector of Alexandria Real Estate Equities, absorbed AgTech Accelerator into their seed capital platform and LaunchLabs in RTP. In 2020 they announced plans to build another 160,000 square foot property to join their campus. Alexandria LaunchLabs – AgTech provides move-in ready office/laboratory space, shared equipment, and dedicated services unique to AgTech companies.

### BASF (RTP)

In June 2019, BASF opened its new global Agrochemical Application Research Center (AARC) in Research Triangle Park. The facility helps to further optimize stewardship guidelines regarding on-target application of BASF crop protection products used worldwide.

### Biovet S.A. Laboratories (RTP)

The Spanish animal-nutrition company established an office in Research Triangle Park as their first international location in 2018. Biovet develops and sells feed additives for preventing disease and optimizing health and productivity in poultry, swine, fish, cattle and other livestock.

### Hi Fidelity Genetics (Durham County)

The crop breeding company closed an \$8.5 million Series A round of financing co-led by Fall Line Capital and Finistere Ventures in January 2019. HFG is using the investment to bring its breeding platform to the \$500 billion global agricultural seed market, with an initial focus on broad acre crops such as corn and cotton.

### Indigo Agriculture (RTP)

The agricultural sustainability company based in Boston launched an online grain sales platform called MarketPlace that is supported by the closing of a \$250 million Series E round of financing in 2018. In addition to supporting its launch of Marketplace, the Series E funding will also support the microbial technology being developed at the RTP operation, including hiring more employees.

## RECENT PROJECTS



*Isolera Extracts facilities grand opening in Oxford*

### **Isolera Extracts (Granville County)**

The leader in CBD oil and isolate extraction from hemp plants announced in April 2019 that they would be bringing an industrial hemp processing service to the 187,000 square foot former Burlington Mills facility in Oxford, North Carolina. The facility plans to launch with a workforce of 40 employees and grow to 100 employees within six months. Isolera will also be partnering with 140 local farmers to produce the hemp.

### **Metabolon (RTP)**

The precision medicine developer and drug tester for companies and universities received a \$15 million investment from Essex Woodlands Health Ventures in 2016 to support the commercialization of new products and add 15 new employees to their RTP location. Metabolon has raised approximately \$80 million in funding since its creation in 2000. Metabolon is the world's leading health technology company with a focus on agriculture and nutrition industries, as well as academic and government organizations.

### **Novozymes (RTP)**

The leader in the global crop science industry chose Research Triangle Park as the location for their R&D site in 2014. The Danish company invested \$36 million over three years and hired 100 employees. The R&D facility housed scientist who analyze and select microorganisms that will be coated onto seeds or paired with seeds sold worldwide by agricultural giant Monsanto (now acquired by Bayer).



*Golden Belt Complex in Durham County, home of Pairwise Headquarters*

### **Pairwise (Durham County)**

The growing agriculture and food company recently signed a lease for its new site in Durham's Golden Belt complex downtown. Pairwise expects to increase its 50 employee headcount by an additional 30 to 40 in 2019. The company initially established its headquarters in the Golden Belt Campus in the heart of downtown Durham in 2018.

### **PlantResponse (RTP)**

The Madrid-based company and leader in the plant biotechnology field announced it would be establishing its North American headquarters in the Research Triangle Park in 2018. It is expected to bring a \$6.9 million investment and 5 new jobs to the area.

# RESEARCH AND DEVELOPMENT

## Data Science Initiative (DSI)

Founded in 2014 at North Carolina State University, DSI seeks to enhance internal capabilities and better enable faculty, students and researchers to use and further data science methods and applications to help ideas become solutions. DSI further seeks to strengthen internal collaboration and external partnerships.

## Institute for Advanced Analytics

Located on NC State's Centennial Campus, the institute serves as the focal point for a university-wide, interdisciplinary collaboration among a large number of faculty. The Institute's flagship program is the nation's first Master of Science in Analytics (MSA) degree.

## NC Food Innovation Lab

The nation's only facility with cGMP capabilities dedicated to supporting the plant-based food innovators of tomorrow. NCFIL brings together the latest in food processing equipment, expert food scientists and partners from across the state to help food companies and entrepreneurs get their products to market quickly and effectively.



*RTI Headquarters in RTP*

## RTI International

An independent, nonprofit institute that provides research, development, and technical services to government and commercial clients worldwide headquartered in the Research Triangle Park. RTI founded in 1958 with funding from local businesses and the three North Carolina universities that form the Research Triangle.



*Lake Wheeler Road Field Laboratory*

## The Laboratory for Analytical Sciences (LAS)

Founded by the National Security Agency and located on NC State's Centennial Campus, LAS is a mission-oriented translational research lab focused on the development of new analytic technology and analysis tradecraft.

## The Lake Wheeler Road Field Laboratory

Located 5 miles from downtown Raleigh, the laboratory offers nearly 1,500 acres for teaching, research and extension requests made by NC State faculty. Both plant and animal-related units operate on the site and additional agronomy-related research is conducted directly by the farm operations staff.

## The Golden LEAF Biomanufacturing Training and Education Center (BTEC)

A multidisciplinary instructional center at North Carolina State University that provides education and training to develop skilled professionals for the biomanufacturing industry.

# INCUBATORS AND ACCELERATORS

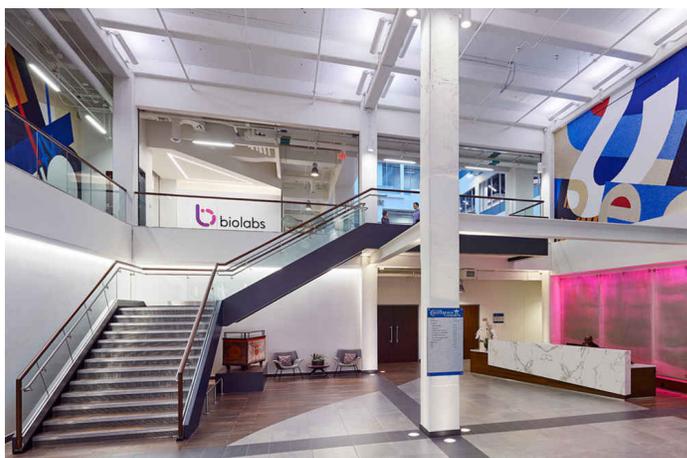
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## Ag TechInventures

AgTI is an agriculture technology innovation lab that further develops promising intellectual property in AgTech and infotech/precision agriculture. They identify the most promising agricultural technologies from university research labs and small scientific focused companies

## Bayer Growth Ventures

Invests in emerging teams and ideas that improve agriculture across technologies and geographies. BGV typically leads investments in early stage companies, from Seed through Series A, and will selectively invest in later initial opportunities.



BioLabs North Carolina, located in the Chesterfield Building

## BioLabs North Carolina

Operates a shared lab and incubator space for life science companies in Durham.

## Centennial Campus Partnership

Centennial Campus is NC State University's research campus, home to 75 corporate, government and nonprofit partners. The Partnership provides business incubation, complete with wet lab facilities.

## Excelerate Health Ventures

An early stage healthcare focused fund in the Research Triangle Park. Services include mentoring, networking, business planning, as well as marketing and event planning, branding, sales channel development, organizational planning and recruitment. Ventures are hosted in an incubator space with associated start-up support and development services.

## FHI Ventures

An accelerator and seed-stage investor for social enterprises in emerging markets that operate in health and education industries. Located in Durham.

## First Flight Venture Center Inc

A high-science, high-impact incubator located in the heart of Research Triangle Park. Established in 1991 to serve the initial needs of entrepreneurs and early stage science companies. FFVC offers 25,000 square feet of leasable office and laboratory space for up to 40 emerging high-science, high-impact companies.

## Launch Chapel Hill LLC

A venture lab and business accelerator that provides tools and knowledge to startups to decrease risks, reduce go-to-market time and accelerate growth.

## Med1 Ventures LLC

An operating company in Raleigh that develops medical products with exits expected within 18 to 48 months.

## Morrisville Innovation Foundation

A program of the Morrisville Chamber of Commerce, provides economic development and entrepreneurial resources, including HOTTovation, a startup incubator for entrepreneurs with cutting-edge technologies.

# INCUBATORS AND ACCELERATORS

## NC Idea Labs

An early-stage accelerator program that uniquely offers services for free to participating startups/teams, without taking an equity stake in the company. The focus is on establishing or growing a customer base, developing a solid business model and preparing founders to pitch and raise capital after graduating from the program.

## NC State Office of Research

### Commercialization (ORC)

ORC plays a crucial role in this by protecting and promoting University research discoveries and intellectual property, working with and guiding industry partners, and promoting the acceleration of startups. They are driving economic growth by facilitating the commercialization of research discoveries.

## North Carolina Research Campus

A private-public venture created to foster collaboration and further knowledge in biotechnology, nutrition, agriculture and health.

## SouthEast TechInventures (STI)

STI works with university-based inventors to accelerate the commercialization of technologies in the areas of biotechnology, medical devices, diagnostics, nanotechnology, materials, electronics, and agriculture, including agricultural biotechnology.

## Synecor LLC

An incubator for medical device technologies and companies. Their efforts are focused on the identification and development of novel solutions to unmet medical needs.



Syngenta Innovation Center in RTP

## Syngenta Ventures

The corporate venture capital (VC) team of Syngenta, a leading agriculture company helping to improve global food security by enabling farmers to make better use of available resources.

## The Council for Entrepreneurial Development (CED)

CED connects entrepreneurial companies with high-value resources to accelerate business growth. CED services and programs empower entrepreneurial companies to go further faster.

## The Launch Place

Provides services to startups through two investment funds, business consulting services, subsidy programs and training and mentoring initiatives. Located in the Research Triangle Park.

## The Pink Ceiling LLC

Operates the Pinkubator, a startup incubator for women-led businesses in pharmaceutical and healthcare, consumer, technology and service industries.

## TheLab at RTP

Offers flexible full-service wet and dry lab and office space for startup R&D companies. The Lab is managed by the Research Triangle Foundation.

# SPACE

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## The Chesterfield

The Chesterfield building is located in downtown Durham's Brightleaf District, a vibrant area featuring restaurants, retail, entertainment and housing. Vacant since 1999, the Chesterfield was redeveloped in 2017 by Wexford to become a new center of gravity in the life science and technology ecosystem. Duke University leases 100,000 square feet as collaborative lab space and hub for innovation.

## The Duke Phytotron

Houses six completely closed greenhouse units and 49 miscellaneous chambers. The Phytotron is staffed seven days a week, allowing off-site researchers to run experiments without having to make extended visits. The Phytotron staff has extensive experience growing many species of native and agricultural from different habitats. Phytotron horticulturists are available to provide advice concerning plant cultivation issues.

## First Flight Venture Center

Located in the heart of Research Triangle Park, FFVC is a high-science, high-impact incubator that serves the initial needs of entrepreneurs and early stage science companies. FFVC offers 25,000 square feet of leasable office and laboratory space for up to 40 emerging high-science, high-impact companies.

## Frontier Wet Lab Space

Located in Research Triangle Park, The Frontier is comprised of four buildings that provide wet lab space, office space, coworking space, and amenities such as rotating food trucks and fitness classes.

## NC Biotechnology Center

As a private, non-profit, state-funded corporation, the North Carolina Biotechnology Center and its Agriculture Sector Development team provide access to the people and resources ag tech companies need to get started in North Carolina. NCBiotech offers office space in its Landing Pad for relocating companies and grants to address gaps in infrastructure.

## The NC State University Phytotron

Houses 60 growth chambers, four greenhouses and other miscellaneous chambers that can be used by faculty, graduate and undergraduate students, post docs, commercial researchers and researchers from other universities. Users can pay for a cart that houses seedlings and is attended to by College of Agriculture and Life Science staff. The facility also allows researchers to grow and study plants under various combinations of strictly controlled environmental conditions.

## The University of North Carolina Chapel-Hill Greenhouse

The greenhouse includes nine houses of allocated space. Area for rent and soil prep are available upon request, with a full time staff to ensure maintenance of the greenhouse standards.



The Frontier at RTP

# VENTURE CAPITAL FUNDS AND RESOURCES

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## **Agritech Capital**

A North Carolina based organization dedicated to advisory, investment, and consulting in food and agribusiness, focused on achieving growth through agtech and other technologies.

## **Ag TechInventures**

An agricultural technology innovation lab that further develops promising intelAgTI is an agricultural technology innovation lab that further develops promising intellectual property in AgTech and infotech/precision agriculture to form new portfolio companies positioned for acquisition by leading agricultural companies.

## **The Alexandria Seed Capital Platform**

A new model to catalyze life science seed-stage investment. Alexandria Venture Investments and a group of strategic partners are committed to accelerating seed-stage company growth. Applicants are welcome to apply for funding and membership.

## **Bayer Growth Ventures**

Invests emerging teams and ideas that improve agriculture across technologies and geographies. BGV portfolio consists of companies ranging from biotechnology to pharmaceuticals, and microbes to software, marketplaces and connected devices. BGV typically leads investments in early stage companies, from Seed through Series A, and will selectively invest in later initial opportunities.

## **Finistere Ventures**

A venture capital firm specializing in agriculture and food tech, with offices across the globe. Finistere has newly established a base in the Triangle Region of North Carolina in order to access the emerging ecosystem.

## **International Farming Corporation**

An investment management firm focused on providing investors current cash income and long term capital appreciation through the acquisition, improvement and management of a diversified portfolio of farmland.

## **The North Carolina Biotechnology Center**

A private, non-profit, state-funded corporation, the North Carolina Biotechnology Center and its Agriculture Sector Development team provide access to the people and resources ag tech companies need to get started in North Carolina. NCBiotech continues to invest in technology development through grants and in company development through loans.

## **Pontifax AgTech**

A pioneering growth capital investor in food and agriculture technology. It invests globally in growing businesses that improve agricultural productivity, nutrition, health, sustainability and supply chain efficiency, and it invested in four Triangle companies in 2018.

## **Social Venture Circle**

The world's largest early-stage impact investing network. Invests in start-ups looking to improve the environment, education, health and community.

## **The Launch Place**

Invests primarily in new and serial entrepreneurs in the industries of nano technology, green technology, alternative energy, advanced manufacturing, advanced materials, medical devices and information technology.

# VENTURE CAPITAL FUNDS AND RESOURCES

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Building 01 at TheLab at RTP

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## **Syngenta Ventures**

A leading agriculture company helping to improve global food security by enabling farmers to make better use of available resources with a corporate venture capital team.

# ANGEL NETWORKS

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## **The Carolina Angel Network (CAN)**

CAN brings together the UNC entrepreneurial community and the UNC alumni network to empower the early stage new businesses that drive our future. They support the UNC startup community with funding and advice from experienced alumni who are members of the network. CAN is an angel investing platform for members and co-investment funds (Venture Capital Angel Multiplier Fund).

## **The Duke Angel Network**

Supports the global Duke entrepreneurial community with an angel investing platform and co-investment fund (the Duke Innovation Fund) that engages and leverages the power of the Duke alumni network. The Duke Angel Network operational team and investment platform exist within the Duke Innovation and Entrepreneurship Initiative.

## **Triangle Venture Alliance**

This partnership between Duke University, the University of North Carolina, NC State University and North Carolina Central University is a network of alumni angel groups created to fund start-ups founded by alumni, students, staff, faculty and families. Combining the power of these Triangle-area university angel investors will give groundbreaking ideas and innovation best chance at success.

## **The Wolfpack Investor Network (WIN)**

Win brings together the NC State entrepreneurial community, NC State alumni network, and innovative private companies to empower the businesses that drive our future. The WIN actively engages and matches NC State alumni network expertise with portfolio companies to support growth and success.