

**AVISON
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Life sciences report

2Q 2021

Raleigh-Durham



Overview

North Carolina is home to 775 life science companies, and with steady long-term growth, the industry employs more than 67,000 North Carolinians. The sector continues to be a major economic driver for the state and the Raleigh-Durham region. The solid relationship between educational and private institutions has facilitated the recruitment and retainment of talent across the area. North Carolina leads the country in vaccine manufacturing and now has the world's largest concentration of contract research organizations. North Carolina is one of just 10 states with a "specialized" employment

Approximately 75% of North Carolina's life science companies are based in the Raleigh-Durham region.

concentration in three or more life science sub-sectors. The Raleigh-Durham region's rich talent pool, strong economic fundamentals and proximity to universities have attracted major companies to the area. Research Triangle Park is the largest research park in North America and is home to industry leaders such as Syngenta, Bayer, IQVIA and Biogen. Biotech employment continues to increase as the world grapples with the COVID-19 pandemic, and the Triangle region is experiencing heavy demand for biomanufacturing and lab space.

Why the Triangle?



Low cost of doing business



Minimal regulatory hurdles



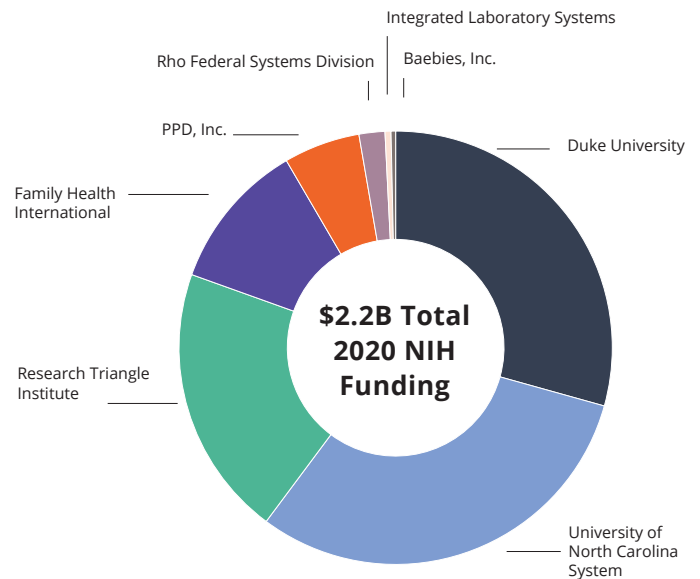
Some of the biggest names in biotech, agriculture and contract research



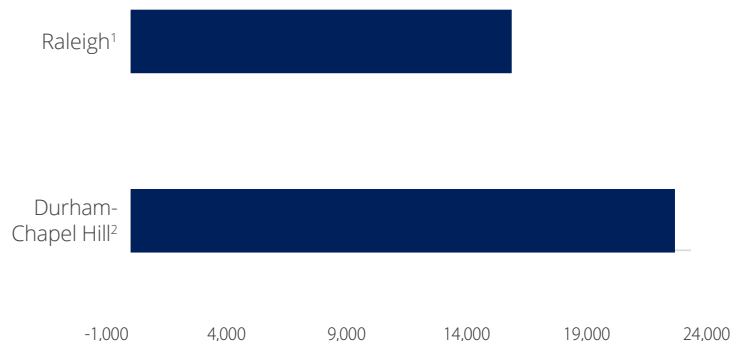
Access to talent from three R1 universities

In the U.S., employment in life, physical and social science occupations is projected to grow 5% between 2019 and 2029, which will result in approximately 68,200 occupational openings in the sector. Steady growth in life sciences has acted as a buffer during the past two recessions, where in both instances the region's private sector employment declined while the life sciences industry grew. In the combined Triangle MSA, research and development employment grew 2.0% year-over-year (4Q19-4Q20), the highest employment growth percentage among all life science industry sectors in the region.

Notable NIH funding by organization (2020)



Life science employment by MSA (4Q20)



¹Wake, Johnston and Franklin Counties

²Durham, Orange, Chatham, Granville and Person Counties



Facts and figures

609 life science sites

31,000+ employees in the Triangle

5,100+ STEM graduates each year

\$142K average annual life science salary

\$10B contribution to Gross Regional Product

10M+ SF of life science inventory in the Triangle

4.8M+ SF of life science inventory in the pipeline

\$84B NC economic impact from life science industry

CARsgen Therapeutics, announced a \$157M investment to build a 135,000-sf facility for an R&D and manufacturing operation in Durham County. The Houston-based biotech company plans for a 200-job expansion between 2022 and 2026. The company chose the Triangle over Maryland for its new project.

R&D grants

Twenty-nine technology companies across North Carolina have received grants totaling \$1.5 million to foster job creation and promote research and technological development in response to the COVID-19 pandemic. More than half of these companies are in the life sciences sector.

#4 Highest concentration of PhDs

#4 for life science VC funding

#7 in new life science talent

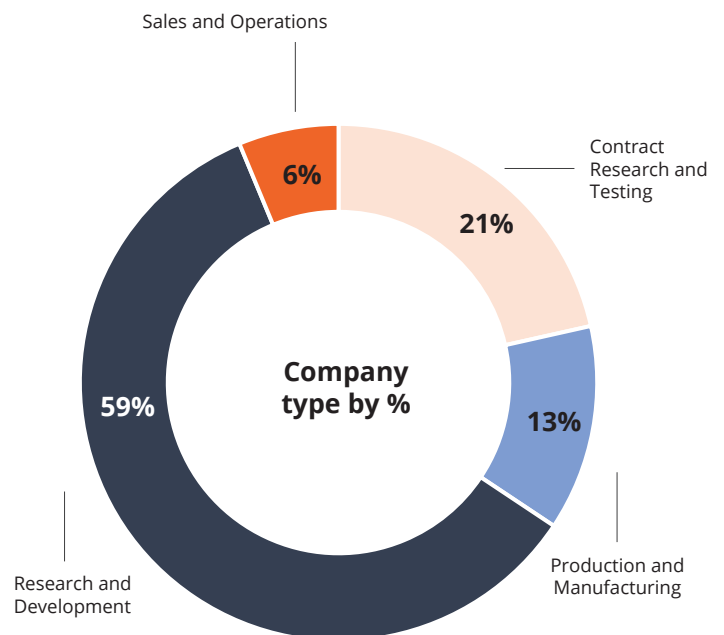
Life science trends

- Increased demand for life science product is creating interest in conversion of commercial office buildings to lab space. Some of the most promising conversion opportunities include traditional office buildings that are anchored by research universities with direct access to a steady pipeline of STEM graduates.
- Biotechnology is the most research-intensive industry in the U.S. economy, with spending accounting for 25.7% of total life science revenue.
- U.S. life science investment sales volume reached nearly \$4 billion in the fourth quarter of 2020 alone. As COVID-19 negatively impacted volume across all property sectors in early 2020, investors pivoted towards product recognized as being more resilient.

Recent acquisitions

PPD is set to be acquired by Thermo Fisher Scientific for a total price of **\$17.4 billion**. The global company has 1,700+ employees in the Triangle. PPD reported \$4.7B in revenue for 2020.

Raleigh life science company, PRA Health, is set to be acquired by Ireland-based ICON in a **\$12 billion** deal. The combined ICON-PRA company will be based in Dublin, Ireland. The deal is valued at 30% of PRA's stock price.



North Carolina's life sciences manufacturing jobs rose 11% during the COVID-19 pandemic. The annual year-end analysis by the North Carolina Biotechnology Center's Life Science Intelligence Team reported that 30,181 people were employed in production and manufacturing companies at year-end 2020, up 10.2% from the previous year.

Notable tenant activity / last 12 months

PROPERTY	TENANT	ACTIVITY
Parmer RTP	Duke University	In addition to 140,000 sf already occupied by the University at the campus, the 275,000 sf leased in 2Q20 will house the Duke Human Vaccine Institute.
Midtown Plaza	Gilead Sciences	California-based Gilead Sciences will open a business service operation in Wake County, investing up to \$5 million and adding 275 jobs. The pharmaceutical company will backfill 84,183 sf of sublease space at Midtown Plaza in North Hills.
INQ	Azzur Cleanrooms on Demand	Azzur recently signed a 75,000-sf lease at INQ, a new creative office and lab development that was converted from a Sam's Club.

Notable sales / last 12 months

PROPERTY	TOTAL SF	BUYER	SELLER	PRICE (\$M)
Parmer RTP, Parmer Ellis, Parmer 14	2,367,053	Alexandria Real Estate	Karlin Real Estate	\$615
Durham.ID	330,274	Longfellow Real Estate	Bain Capital	\$138
Eastridge at Perimeter Park	475,625	King Street Properties	Somerset Properties, Nuveen	\$76
Center for Innovation & Technology	104,998	Ventas	Keystone Corporation	\$53
Bradford & Berrington Center	224,779	Alidade Capital	Crown Realty	\$41
Innovation I	139,163	Northridge Capital	Scannell Properties	\$37
Park Point	655,700	Trinity Capital Advisors	Zurich Alternative	\$37
Keystone Science Center	70,446	Ventas	Keystone Corporation	\$27

Notable R&D space

West Raleigh

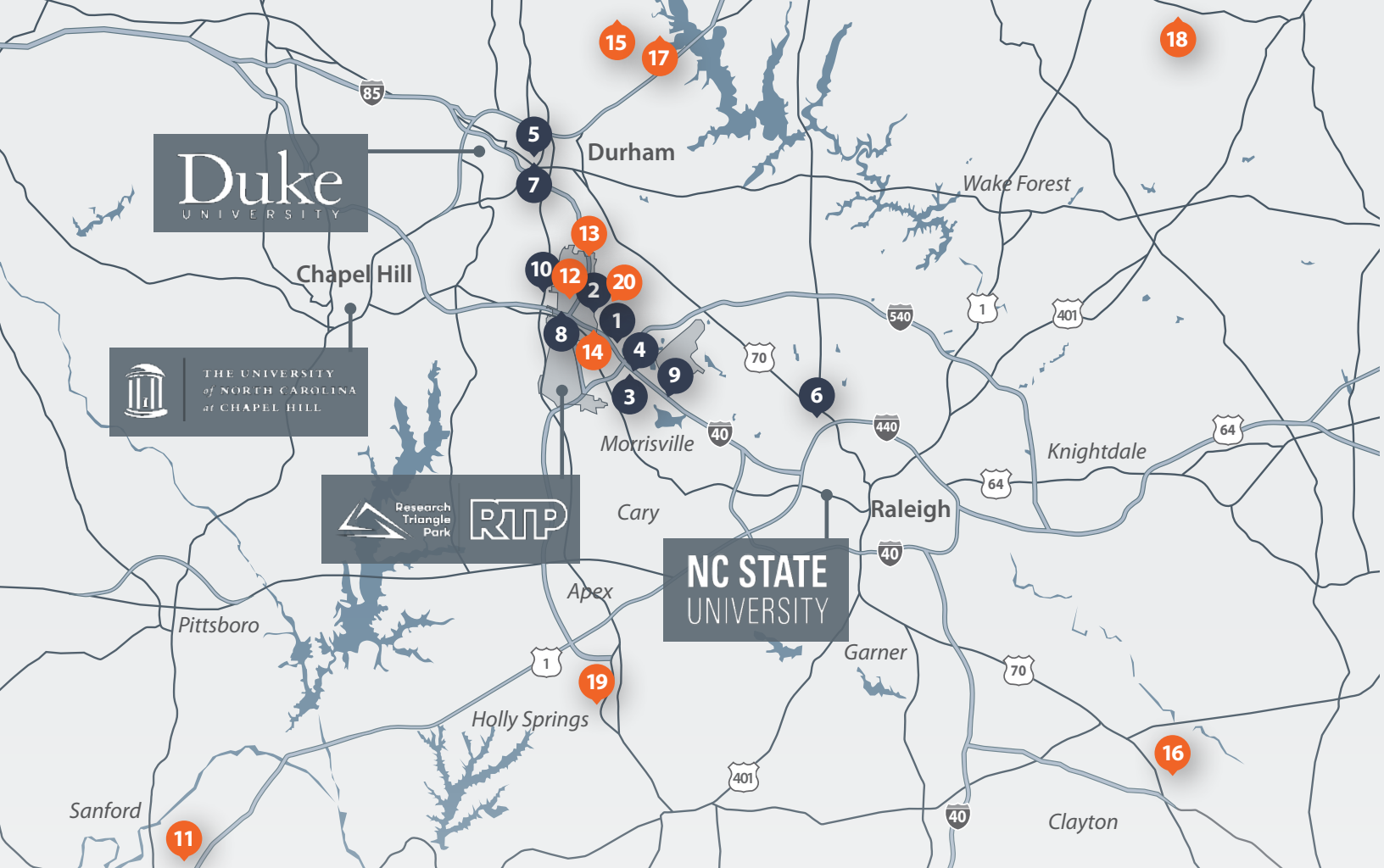
PROPERTY	YEAR BUILT	TOTAL RBA (SF)	% LEASED
Alliance Center	2015	292,955	100%
Biomedical Partnership Center	2017	44,835	100%
Center for Technology & Innovation	2017	104,988	100%
Keystone Centennial Science Center	2010	70,446	100%
Partners Bldg I	1996	81,352	86%
Partners Building II	1999	59,131	100%
Poulton Innovation Center	1991	68,896	100%
Research Bldg IV	1996	75,571	100%
Venture Center	1998	482,692	89%

Research Triangle Park

PROPERTY	YEAR BUILT	TOTAL RBA (SF)	% LEASED
110 TW Alexander Drive	2000	158,417	100%
15 TW Alexander Drive	1978	43,760	100%
2525 E NC Highway 54	1996	82,996	100%
400 at The Frontier	1980	56,337	95%
5 Triangle Drive	1981	32,120	100%
6040 George Watts Hill Dr	2015	61,547	100%
6-8 Davis Drive	1979	100,000	91%
9 Laboratory Drive	2021	160,000	21%
Alexander Industrial Park	2018/2020	263,970	100%
Alexandria Center for AgTech	1984/2019	175,000	100%
Alexandria Innovation Center	1994	135,677	99%
Alexandria Technology Center - Alsto	1985	186,870	93%
Bayer CropScience Innovation Center	2000	158,721	100%
BioPoint	1998	148,989	100%
Bradford/Berrington Center	1999	224,779	100%
Discovery at Perimeter Park	1999	399,072	54%
First Flight Venture Center	1991	52,622	100%
INQ	2020	177,000	100%
Keystone Technology Park	1997/2009	954,041	91%
Labcorp I & II	1988	185,072	100%
Newcastle North	1987	120,426	100%
Park Point	Under Const.	324,000	50%
Parmer 14	1984	262,667	100%
Parmer Ellis	1992	365,366	100%
Parmer RTP	1989	1,681,710	79%
Patriot Drive Sciences Center	1984/2001	50,884	100%
Patriot Park	1989	375,000	100%
Venture at Imperial Center	1988	138,337	100%

Downtown Durham

PROPERTY	YEAR BUILT	TOTAL RBA (SF)	% LEASED
Durham.ID	2018	330,274	92%
Durham Carmichael Building	2013	114,600	100%
The Chesterfield	2017	286,000	99%
Venable Center	2006	74,438	100%



MAP COMPANY TRIANGLE EMPLOYEES NC EMPLOYEES

● **LARGEST CRO'S BY NUMBERS OF EMPLOYEES**

1	IQVIA	5,143	5,353
2	RTI International	2,274	NA
3	PPD	2,000	3,500
4	Syneos Health	1,680	1,804
5	Duke Clinical Research	1,090	1,090
6	PRA Health Sciences	800	900
7	FHI 360	440	440
8	Rho	350	350
9	Charles River Laboratories	300	300
10	Paraxel	300	700

● **LARGEST LIFE SCIENCE EMPLOYERS**

11	Pfizer	3,610	3,846
12	Grifols	2,183	2,632
13	GSK	1,900	2,000
14	BASF	1,769	2,000
15	bioMerieux, Inc.	1,200	1,200
16	Novo Nordisk	1,200	1,200
17	Merck	862	1,379
18	Novozymes	680	680
19	Seqirus	550	550
20	Syngenta	500	1,200

Life science clusters

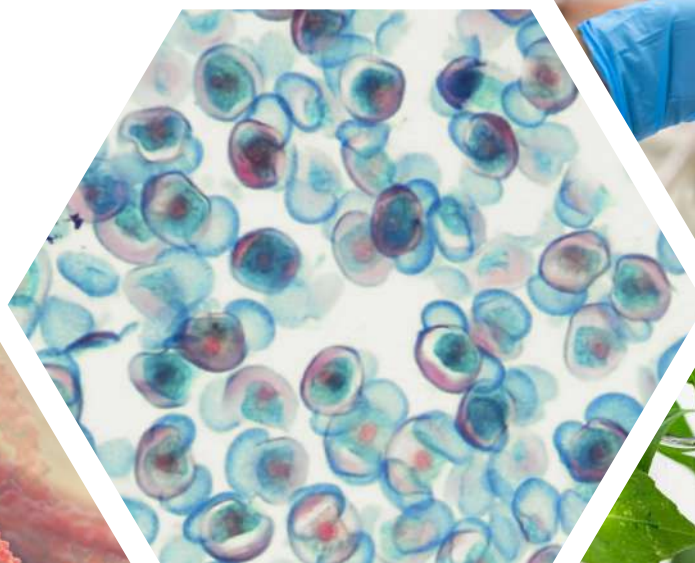
Research Triangle Park

Research Triangle Park is the largest research park in North America. Founded in 1959, the park's 7,000 acres are home to over 75% of North Carolina's life science companies. The nation's first state-funded non-profits promoting life sciences and microelectronics—the North Carolina Biotechnology Center and the Microelectronics Center for North Carolina—were established in RTP. NC Biotech has become North Carolina's go-to life science resource, supporting the region's ideas, research and universities, and offering millions of dollars in North Carolina biotech grants and loans.

More than 560 life science companies are located in RTP, ranging from global corporations to start-ups. Major industries include pharmaceuticals, agtech, cleantech, advanced manufacturing and technology. RTP is a major hub for life science talent due in large part to the region's academic institutions, which attract more than \$3 billion in federal R&D funding each year.

In early 2021, Longfellow Real Estate Partners announced the acquisition of a 20-acre property adjacent to its existing Discovery at Perimeter Park campus with plans to develop a 480,000-sf lab development. Longfellow's plans include four lab buildings, each comprising 120,000 sf. The new project will bring Longfellow's North Carolina portfolio to nearly 3 million sf, doubling its footprint in the state.

Global biotech company, Biogen, will grow its presence in RTP with a \$200-million investment in a new gene therapy manufacturing facility. Biogen chose the Triangle region for its diverse talent pool, citing the company's 26-year track record of successfully recruiting top-tier employees in North Carolina.



Downtown Durham

Downtown Durham continues to entice life science companies and offers tenants an innovative and collaborative urban environment.

Durham.ID, developed by Longfellow Real Estate Partners, has a large presence in Downtown Durham, providing lab, office, residential and retail space. The adaptive reuse development has 115,000 sf of existing lab space and 490,000 sf of office space. Once complete, the master plan will offer 1.7 msf, including 900,000 sf of new office and lab space. Google recently chose Durham.ID for its new engineering hub aiming to create 1,000 jobs nearly doubling the company's current number of employees in the state. Major occupiers such as Duke Clinical Research Institute, Duke Molecular Physiology Institute, Nutanix and Measurement, Inc. also call Durham.ID home. The former WeWork space at 300 Morris Street will be converted to 100,000 sf of state-of-the-art lab space by summer 2021.

The Chesterfield building, a redeveloped former Liggett Myers manufacturing plant, serves as Wexford Science + Technology's 286,000-sf office, lab and technology space. In partnership with Duke University, the project features a unique innovation cluster that includes Biolabs NC, a biotech coworking facility. The lab is equipped with top-of-the-line research equipment, attracting ambitious startup companies. Biolabs NC recently leased 32,000 sf at the renovated Brightleaf Square building.



Centennial Campus / West Raleigh

North Carolina State University's Centennial Campus is a 5.1-msf research-driven park located in West Raleigh. Centennial Campus plays an important role in encouraging innovation and partnering with students, national and international partners and government entities. More than 170 start-up companies have been launched in Centennial Campus, and the park is home to more than 76 industry, government and nonprofit partners.

Biomedical Partnership Center offers 2,435 sf of lab and office space.

Keystone Science Center provides more than 78,000 sf of office and lab space and is a major hub for research and development.

The Center for Technology and Innovation has more than 110,000 sf of office, R&D lab and industrial space and is LEED certified.

Corporate announcements

CARsgen Therapeutics

The Chinese biotech company focused on treating cancers has picked the Triangle over Maryland for a \$157 million, 200-job expansion. The first phase of the project is expected to bring a 35,000-sf clinical lab for its R&D operations, and the second phase will establish a 100,000-square-foot facility for commercial manufacturing.

Gilead Sciences

California-based Gilead Sciences will open a business service operation in Wake County, investing up to \$5 million and adding 275 jobs with an average wage of more than \$142,000. Incentives are estimated to be valued at more than \$13 million and will include job training grants

Abzena

A subsidiary of British pharmaceutical firm Abzena chose Sanford for a 325-job manufacturing facility. The jobs will pay an average annual salary of more than \$63,000. The company must invest \$142 million in the state by 2024 to receive negotiated incentives of \$6.9 million.

Fujifilm Diosynth Biotechnologies

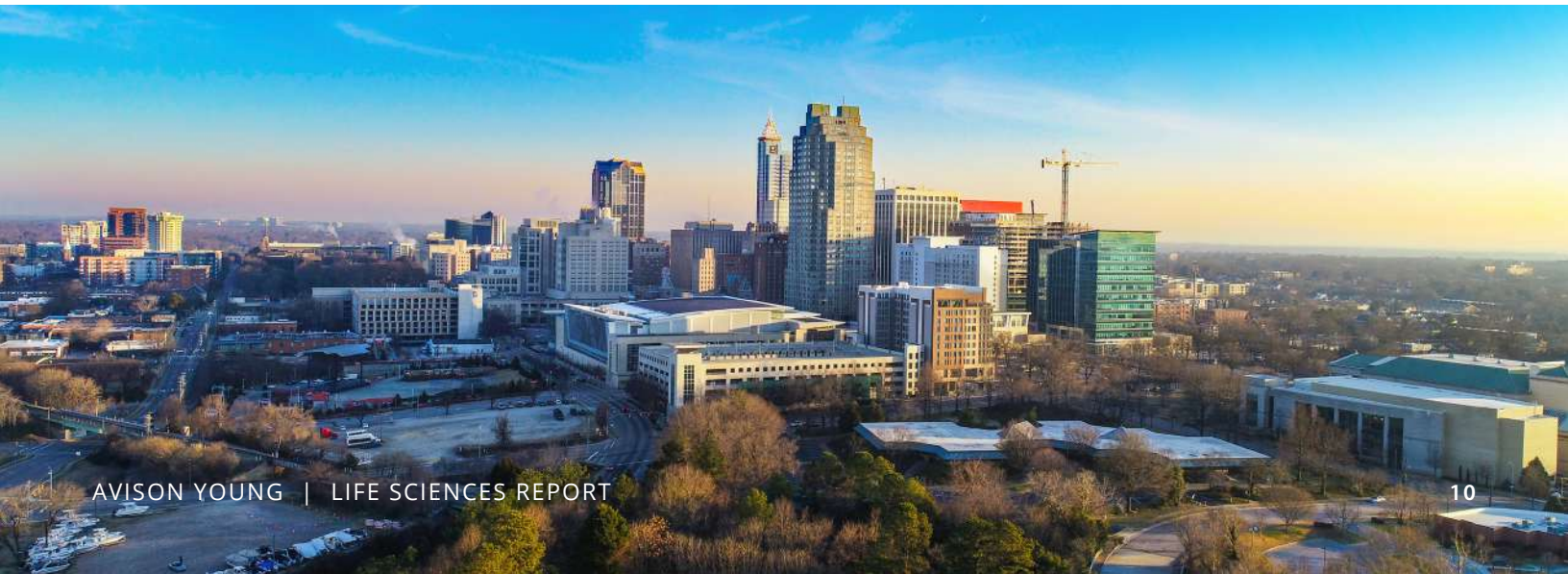
The Japanese company chose Holly Springs over a competing site in Texas for a new \$2 billion biologics manufacturing facility that will house 725 employees. The project will be the largest monoclonal antibodies facility in the world.

Adverum Biotechnologies

California-based Adverum Biotechnologies will add 200 jobs and invest \$80 million in a new Durham facility. The average salary will exceed \$90,000, and incentives were approved for \$3.3 million.

KBI Biopharma

Durham-based KBI Biopharma will build a new \$150 million facility in Research Triangle Park. The site will be home to 200 employees and is expected to open in early 2022.



Office to lab conversion

Durham.ID

The former WeWork space at 300 Morris Street in Downtown Durham is in the process of being converted to 100,000 sf of state-of-the-art lab space. The coworking giant vacated its space amid the COVID-19 pandemic in 2020. The labs will range in size from 8,000-10,000 sf and larger and will address needs within the urban Durham market for high-quality lab space.



INQ

Originally built in 2009 as a Sam's Club totaling 140,302 square feet, INQ offers state-of-the-art new lab and creative office space. Mainstreet Capital Partners and a fund managed by DRA Advisors formed a joint venture to acquire and redevelop the property. INQ was recently rezoned for lab/life science and GMP facilities.

Perimeter's Edge

Longfellow Real Estate Partners will convert this existing office and flex portfolio into lab and life science space. A \$53-million loan secured in 3Q20 will finance the conversion. Longfellow paid \$65 million for the five-building portfolio, which totals 399,072 sf of office and flex space. Future upgrades will include state-of-the-art lab space and façade enhancements.



Occupier Solutions

Meet our team

Avison Young creates economic, social and environmental value as a global real estate advisor, powered by people. At Avison Young, we believe in creating positive impact wherever we go.

There is a vital role for commercial real estate to create healthy, productive workplaces for employees, cities that are centres of prosperity for its citizens, and built spaces and places that create a net benefit to the economy, the environment and the community.

Our nimble, agile team has global insight, local market expertise and access to some of the smartest technology in the commercial real estate industry. As a private company, you will collaborate with an empowered partner who is invested in your success as much as you are.

Our Occupier Solutions team has more than 225 members who are located in geographies around the globe. These professionals are solely focused on sourcing best-in-class research, services, expertise, vendors and resources—across our broad platform and through our vast networks—and then integrating them, seamlessly, to deliver the optimal solutions for our clients.



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