



RESEARCH COMMERCIALIZATION

FOSTERS ENTREPRENEURIAL, ECONOMIC AND INNOVATION EXCELLENCE

NC State is a powerhouse in research commercialization. We've established a streamlined process that connects our faculty with industry partners in order to bring new, innovative technology to the marketplace. NC State research has sparked more than 190 startups and spinoffs, which, alongside our students and alumni, generate \$6.5 billion of North Carolina income each year. It's not surprising that the George W. Bush Institute listed us as one of the top 20 universities for innovation impact.

NC State promotes a culture of entrepreneurial and innovation excellence. As the leader of a National Science Foundation I-Corps, we teach teams of researchers how to shepherd their discoveries and inventions into the marketplace. Training includes customer discovery and market research. Teams are also connected to mentors as they decide how best to enter markets.

Since 2010, NC State has been executing a unique seed-funding program that supports short-term, commercially-focused research projects. Supported by Chancellor Randy Woodson, the Chancellor's Innovation Fund awards university

innovators up to \$50,000 to strengthen the commercial potential of our researchers' intellectual property. The fund helps bridge the gap between public and private funding and encourages products and technology that tackle some of society's most pressing problems.

In the past 12 years, the Chancellor's Innovation Fund has awarded \$3.9 million and generated \$74.9 million in follow-on funding. Awards aren't limited to a single discipline. Sponsored projects have turned sawdust into packaging materials, created coatings to protect stealth aircraft, accelerated the industrial purification of biotherapeutics and developed microgel-based materials that mimic blood platelets.

PhotoCide Protection, Inc., is just one of the 32 startups launched thanks to the Chancellor's Innovation Fund. Founded in 2018, PhotoCide Protection's technology combines cellulose with photosensitizers to fight various pathogens on surfaces. The company has developed fabrics, plastics and coatings that disinfect themselves. This mitigates the spread of infectious diseases that are transmitted via high-touch surfaces.

LEADING THE PACK

#2

in tech transfer among
public universities

Heartland Forward

#4

in startups launched
among universities
without medical schools

AUTM FY20

CHANCELLOR'S INNOVATION FUND



32

Startups formed
by CIF



42

Project technologies
licensed



\$3.9M

Total awards funded



\$74.9M

Follow-on funding
generated

Another startup, TreeCo, edits genes to breed healthier forests and, in turn, a more sustainable future. Using CRISPR, TreeCo can shorten the growing cycle of trees and implement other enhancements, like better drought or frost tolerance. Not only does this technology help grow more resilient trees faster — it can also help meet the rising demand for biofuels, plastic alternatives, and sustainably manufactured textiles and paper.

These successful projects are fostered by NC State's Office of Research Commercialization. The office helps our faculty members evaluate, protect and license their technology. By facilitating commercialization of research discoveries, the office helps drive economic growth. For fiscal year 2021, NC State

reported \$547 million in research expenditures. On Centennial Campus, a premier research park right on campus and the Office of Research Commercialization's homebase, more than 70 corporate, government and nonprofit partners work alongside faculty members and students. NC State research has led to more than 1,500 patents and 600 products reaching the market total so far.

National organizations have taken note of our success. After analyzing universities' invention disclosures, issued licenses and options, gross licensing income, formed startups, cited patents and graduates in STEM fields, the nonprofit Heartland Forward ranked NC State University second among all U.S. public universities, and seventh among all universities, in research technology transfer and commercialization. The Association of University Technology Managers listed NC State as first in active licenses and options and fourth in startups launched among universities without a medical school for fiscal year 2020. The Milken Institute, an economic think tank, labeled Raleigh one of the top 10 best-performing large cities in the United States and cited the collaboration and innovation fostered by NC State — especially Centennial Campus.

Research commercialization is key to NC State's mission of "Think and Do." From laboratory to industry, NC State research has the power to solve global challenges. Innovative ideas are transformed into measurable, tangible benefits. Embodying "Think and Do," our researchers are improving the world, one discovery at a time.



For more details, visit research.ncsu.edu

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