Annual Report on Programs and Activities to the

Joint Legislative Commission on Governmental Operations;
Joint Legislative Economic Development and Global Engagement Oversight Committee; and
Fiscal Research Division

by NCInnovation, Inc.

As Required by G.S. 143-728(d)(2)a.

September 2025

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Lists of Tables & Figures by Requirement

REQUIREMENT 1:

Statutory Requirements

The North Carolina General Statutes G.S. 143-728(d)(2)a lists seven requirements that must be reported on or before September 15 of each year and submitted to the Joint Legislative Commission on Governmental Operations, the Joint Legislative Economic Development and Global Engagement Oversight Committee, and the Fiscal Research Division.

This document serves as that report and contains all materials to satisfy the seven requirements outlined below.

§143-728(d)(2)a. Requirements of NCInnovation

(d) Requirements. – In order to receive the endowment and retain State funds, all of the following requirements must be met:

...

(2) NCInnovation shall amend its articles of incorporation to enable NCInnovation to carry out the purposes and requirements of this Article. The articles of incorporation, as amended, shall provide for the following:

a. Consultation; reporting. - NCInnovation shall consult with the Joint Legislative Commission on Governmental Operations prior to the board of directors adopting bylaws or any amendment to its bylaws. NCInnovation shall also report on its programs and activities to the Joint Legislative Commission on Governmental Operations, the Joint Legislative Economic Development and Global Engagement Oversight Committee, and the Fiscal Research Division on or before September 15 of each fiscal year and more frequently as requested by any of these entities. The report shall include all of the following information:

1. Every expenditure for establishing and supporting a network of regional innovation hubs and every award of grants, funds, or other support by NCInnovation in the prior fiscal year. This information shall include, at a minimum, the recipient, amount, term, and purpose of the award.
2. Outcome data collected by NCInnovation, including the number of jobs created.
3. Cumulative regional innovation hub network expenditure and funding award data by program and by county.
4. An unaudited report, itemized by category, of overhead and administrative costs for the previous fiscal year.
5. Current fiscal year budget, planned activities, and goals for the current fiscal year.
6. Developed performance metrics for recipients of funding and support by NCInnovation.
7. A detailed explanation of how annual salaries are determined, including base pay schedules and any additional salary amounts or bonuses that may be earned as a result of job performance. The explanation shall include the means used by NCInnovation to foster employee efforts in rural and low-income areas in the State.

Programs and Activities

REQUIREMENT 1. Every expenditure for establishing and supporting a network of regional innovation hubs and every award of grants, funds, or other support by NCInnovation in the prior fiscal year. This information shall include, at a minimum, the recipient, amount, term, and purpose of the award.

AND

REQUIREMENT 6. Developed performance metrics for recipients of funding and support by NCInnovation.

NCInnovation (NCI) currently has four regional innovation networks to cover the East, West, Piedmont, and Charlotte areas to connect our public research universities, industry partners, and business leaders together to drive more effective commercialization strategies regionally, and across North Carolina.

Each regional innovation network includes the public research universities within that region and is anchored by "hub" institutions. With the adoption of the organization's FY2025 Budget and approval of a hub expansion plan by the NCI Board of Directors (NCI Board) at its August 14, 2024, meeting NCI followed through with its planned activity of Regional Network Expansion listed in REQUIREMENT 5 of the September 2024 volume of this report to the General Assembly. NCI has grown its original footprint of four (4) hub institutions to include three (3) additional hubs and support for the Triangle area public universities.

Current NCI Regional Innovation Networks consist of:

East Regional Innovation Network
Hub Universities: East Carolina University, Fayetteville State University, and UNC Wilmington
Regional Universities: Elizabeth City State University and UNC Pembroke

West Regional Innovation Network
Hub Universities: Western Carolina University and Appalachian State University (Hickory Campus)
Regional University: UNC Asheville

Piedmont Regional Innovation Network
Hub University: North Carolina A&T State University
Regional Universities: UNC Greensboro, Winston-Salem State University, North Carolina Central University, North Carolina State University, and UNC-Chapel Hill

Charlotte Regional Innovation Network
Hub University: UNC Charlotte

As part of NCI's support for the four regional innovation networks and each hub institution, NCI has seven (7) Regional Innovation Network Directors to lead regional operations. An explanation of every expenditure for establishing and supporting a network of regional innovation hubs, including grant funds, is shown in *Table 1.1: Program Expenditures for the Fiscal Year Ended June 30, 2025*.

TABLE 1.1: Program Expenditures for the Fiscal Year Ended June 30, 2025

NCINNOVATION

Program Expenditures for the Fiscal Year Ended June 30, 2025

Preliminary draft and unaudited

	Total Expenditures by Detail	
Grant Awards		
Pilot Grants		$ 2,303,661
Statewide RFP Grants		7,592,266
Salaries & Benefits		
Regional Hub Directors	936,474	
University & Ecosystem Support to Hubs	609,931	
Total Salaries & Benefits		1,546,405
Regional Hub Expenses		
Contract Research Services	110,149	
University & Ecosystem Support Programs	628,319	
Travel Expenses, Excludes out of State travel & travel to NCI HQ	55,389	
Meetings Expenses, Including program related meals	7,656	
Dues, Membership, Professional Development	3,812	
Supplies, Printing & Postage	1,842	
Computer Equipment, Communications & Tech Services	40,205	
Total Regional Hub Expenses		847,372
Total Program Expenses		$ 12,289,704

Note: The above program expenditures comply with all state law requirements, including the following:

G.S. 143-728(d)(1)e. The amount of State funds that may be used for the annual salary of any one officer or employee of NCInnovation shall not exceed the greater of (i) one hundred forty thousand dollars ($140,000) or (ii) the amount most recently set by the General Assembly in a Current Operations Appropriations Act.

G.S. 143-728(d)(5). NCInnovation may draw from, distribute, and otherwise expend investment income, including, without limitation, to make funding awards and establish or support a network of regional innovation hubs, in accordance with this Article, and such activities are subject to the reporting requirements of this Article.

Pilot Grant Awarded Projects (August 2024)

At the start of implementing its grant program, NCI conducted an early pilot process featuring eight (8) grant awards across all four of its initial regional innovation networks. Following external review and validation of these applications, management presented a slate of eight recommended projects totaling more than $5 million in awards to the NCI Board at its meeting on May 15, 2024. The NCI Board approved those eight pilot grants. See *Figure 1.1: Map of Pilot Grant Awards*.

A summary of the total funding awarded for the entire Pilot Grant program is shown in *Table 1.2: Pilot Grant Awards Detailed Budgets by Year of Spending*. The funding overview for each of the eight Pilot Grant awards can be found in *Table 1.3: Pilot Grants - Funded Projects Overview* which is grouped by region and lists the recipient university, name of the principal investigator (PI), award amount, industry, and the project title.

Individual grant narratives for the Pilot Grant program are grouped by region and are either a one- or two-year grant. NCI is currently in **year two** of the Pilot Grant program. Please note that three (3) of the grants were for a term of one-year. Their funding has been fully distributed, but these three projects were granted no cost extensions because there were some administrative delays in initially distributing the funds in the pilot round. The projects are ongoing until their extensions are complete (around the end of this calendar year). See *Table 1.4.1, Table 1.4.2, Table 1.4.3, Table 1.4.4, Table 1.4.5, Table 1.4.6, Table 1.4.7, and Table 1.4.8*. The recipient university and name of the PI are listed at the top of each individual grant narrative. See *Table 6.1 Action Plan for NCI Funded Projects* for information on metrics and performance indicators for all projects.

FIGURE 1.1: Map of Pilot Grant Awards

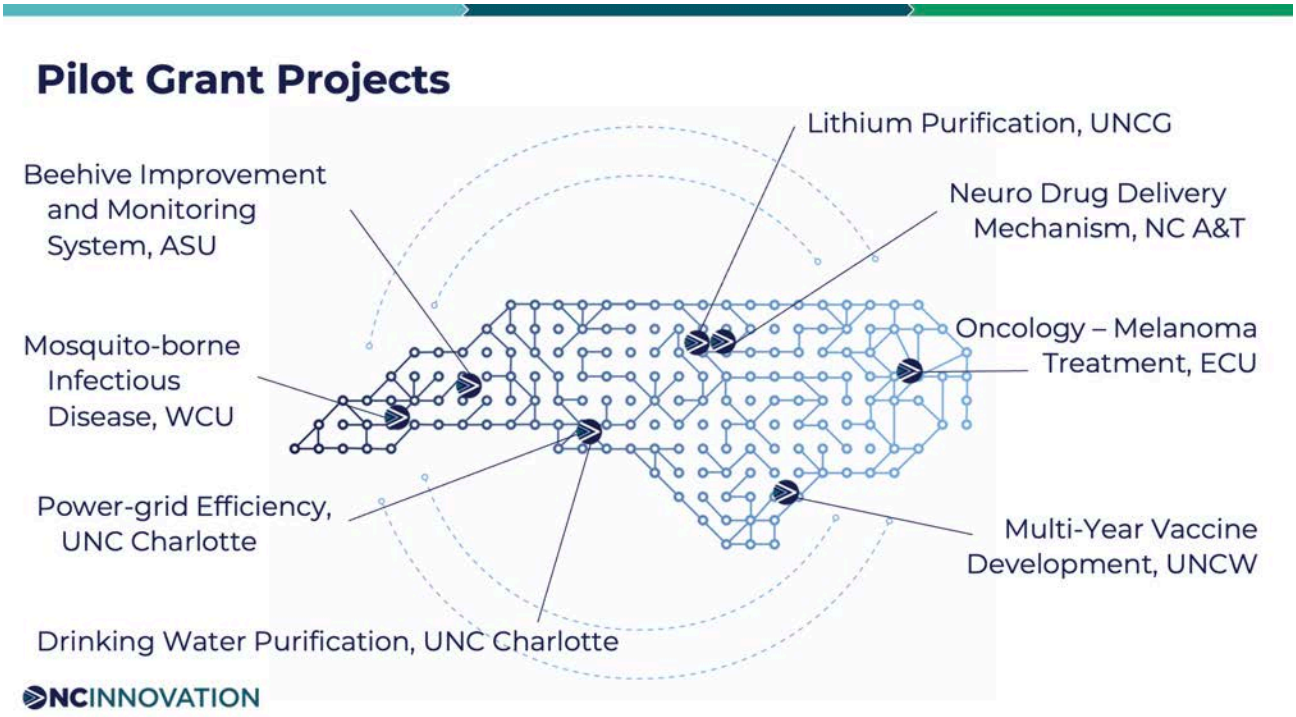

TABLE 1.2: Pilot Grant Awards Detailed Budgets by Year of Spending

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Pilot Grant Awards Detailed Budgets by Year of Spending

CATEGORY	*DESCRIPTION*	*BUDGET SPEND* Year 1 June 2024	Year 2 June 2025
PERSONNEL	***Researcher time/effort, course-buyout, admininstration and oversight of grant management and reporting***		
Faculty		$ 288,117	$ 263,723
Non-faculty research staff (e.g., technicians, staff scientists)		$ 306,602	$ 313,622
Trainees (undergraduate, graduate, and postdoctoral researchers)		$ 170,145	$ 138,612
Grants administration (post-award support)			
Project managers		$ 65,550	$ 58,872
Administrative support		$ -	$ -
Programmatic support (e.g., innovation and entrepreneurship staff)		$ -	$ -
Fringe Benefits expense		$ 50,169	$ 9,182
TOTAL		$ 880,583	$ 784,011
MATERIALS, SUPPLIES & EQUIPMENT	***Equipment, rent, utilities, and materials to conduct research***		
Equipment		$ 206,340	$ -
Materials & Supplies		$ 202,700	$ 81,500
TOTAL		$ 409,040	$ 81,500
TRAVEL	***Travel to meetings with partners, conferences, etc.***		
TOTAL		$ 38,950	$ 20,950
SERVICES, SUBCONTRACTS, CONSULTING FEES	***Market fit research, patent landscaping, technical validation, legal fees, etc.***		
Market research	Ongoing market research	$ 87,500	$ 45,000
Tech and business development	Support tech development, startup, and licensing (travel to conferences for customer development)	$ 52,400	$ 27,000
Intellectual property	Manage IP/technology development	$ 137,000	$ 132,000
Legal fees	Direct support for initial patent portfolio development	$ 135,000	$ 140,000
Industry Fellows and Consultants	Industry relationship development and mentorship, develop expanded network of industry advisors to	$ 589,800	$ 520,000
Executives in residence (EIRs)	Scout, support, advise and mentor opportunities	$ 175,000	$ 150,000
TOTAL		$ 1,176,700	$ 1,014,000
OTHER EXPENSES			
Contract research organization regulatory testing expenses		$ 419,277	$ 403,200
TOTAL ANNUAL SPEND		**$ 2,924,550**	**$ 2,303,661**

TOTAL FUNDING AWARDED	**$ 5,228,211**

Summary of the above is for the 8 grants awarded in the NCI Pilot Grant program and approved by its Board of Directors on May 15, 2024.

TABLE 1.3: Pilot Grants - Funded Projects Overview

Region	PI Name	University	Award Amount	Industry	Project Title
East	Rukiyah Van Dross-Anderson	ECU*	$974,000	Biohealth	Melanoma Treatment
East	Ying Wang	UNCW*	$1,082,696	Biohealth	Multi-Year Vaccine Development
West	Brian Byrd & Scott Hoffman	WCU*	$999,963	Biohealth	Mosquito-Borne Infectious Disease Identification and Risk Assessment
West	Rahman Tashakkori	ASU*	$641,951	AgTech	Beehive Improvement and Monitoring System
Piedmont	Kristen Dellinger	NCA&T*	$369,024	Biohealth	Neuro Drug Delivery System
Piedmont	Hemali Rathnayake	UNCG	$404,999	Energy Transition & Electrification	Lithium Purification
Charlotte	Jordan Poler	UNCC*	$400,971	Biohealth	Drinking Water Purification
Charlotte	Sukumar Kamalasadan	UNCC*	$354,607	Energy Transition & Electrification	Power-Grid Efficiency
TOTAL AWARD AMOUNT: $5,228,211					

KEY: (*) denotes a hub university.

TABLE 1.4.1: East Region | Eastern Carolina University – Pilot Grant

Rukiyah Van Dross-Anderson

Oncology – Melanoma

Rukiyah T. Van Dross-Anderson, Ph.D., Associate Professor of Pharmacology, is developing a first-of-its kind cancer immunotherapy for melanoma patients to eliminate the cancer cell and prompt the immune system to seek out and destroy other cancer cells. The immunotherapy is for melanoma patients who do not respond to current treatments. Dr. Van Dross-Anderson hopes her work will increase survivability and reduce melanoma recurrence.

Dr. Van Dross-Anderson has received a two-year grant from NCInnovation to continue developing the treatment, attract quality outside investment, and prepare for clinical trials.

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Competitive Advantage

- There is an unmet need for new treatments that can increase survivability and reduce recurrence in non-responding melanoma patients as well as those that have Stage III and IV metastatic melanoma(Melanoma accounts for more than 75% of skin cancer deaths in the US and has a 22.5% estimated 5-year survival rate of patients with Stage IV)
- Technology aligns with biotech strengths at ECU, the Eastern NC region, and NC more broadly.
- Potential to improve, and extend, the lives of tens of thousands of melanoma patients annually (over 100,000 adults in the US will be diagnosed with melanoma this year).
- Entrepreneurship training, pharma and commercialization consultant on team.
- Company formed to license further work.
- Recipient of previous NC Biotech Center grants (2) and STTR funding.

Commercialization Focus

- Further differentiation of the subject technology versus alternatives on market.
- Potential licensing pathways.
- FDA and regulatory milestones.

Rukiyah T. Van Dross-Anderson, Ph.D. Associate Professor of Pharmacology

ECU

INDUSTRY: Biohealth

TOTAL GRANT AWARD: $974,000 | YEAR 1: $442,000 and YEAR 2: $532,000

TABLE 1.4.2: East Region | University of North Carolina at Wilmington – Pilot Grant

Ying Wang
Vaccine Development

UNCW researchers led by Ying Wang, Ph.D., Associate Professor, Chemistry, have crafted a groundbreaking vaccine platform they hope will result in a universal and longer-lasting flu vaccine. Right now, flu vaccines do not target every strain, and they must be given every flu season – a reality Dr. Wang hopes to change.

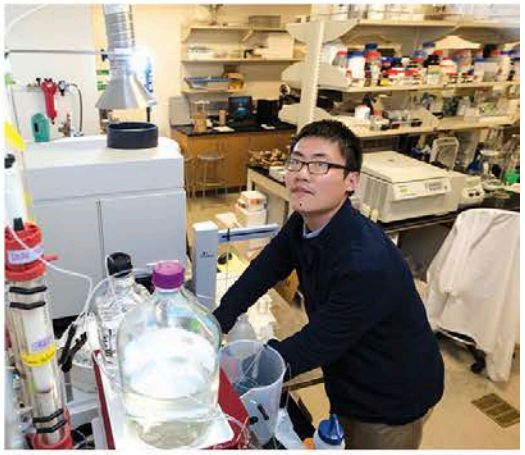
Dr. Wang has received a two-year grant from NCInnovation to support pre-clinical studies and file utility patents, positioning the technology to attract private investment.

Competitive Advantage

- This area of infectious disease commercial activity remains very active - the 2023 global flu vaccine market, worth $7.91 billion, is on track for a forecasted compound annual growth rate of 8.8% through 2030.
- If successful, a universal vaccine would have a large commercialization upside. To the extent that the scale up and production of this vaccine can remain in NC, there is a sizable economic potential for the state.
- Experienced advisors already on team from industry and PI experience.
- Strong ecosystem support, including prior funding from NC Biotech Center and backing of local entrepreneurial support organizations.

Commercialization Focus

- Two utility patent applications for human and animal influenza vaccines.
- Completion of project likely to result in venture capital raise, which will fund GLP-compliant toxicity study, cGMP clinical batch production, and IND application preparation.
- Clear differentiation compared to other universal vaccine strategies.
- Post-NCI plan is to spinout a startup that will license the IP and then seek co-development agreements with multiple large pharmaceutical companies with interests in universal flu vaccines.



Ying Wang, Ph.D.
Associate Professor, Chemistry

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UNCW
UNIVERSITY of NORTH CAROLINA WILMINGTON

INDUSTRY: Biohealth
TOTAL GRANT AWARD: $1,082,696 | YEAR 1: $550,049 and YEAR 2: $532,647

TABLE 1.4.3: West Region | Western Carolina University – Pilot Grant

Brian Byrd & Scott Huffman

Mosquito-borne Infectious Disease

Brian Byrd, Ph.D., Professor, Environmental Health Sciences and Scott Huffman, Ph.D., Professor Chemistry and Physics are working on a device that utilizes spectroscopy to analyze vibrational signals from mosquitoes. In this way, researchers can draw conclusions in a matter of minutes about species, sex, infection status, and more from a sample of mosquitoes in the wild – work that takes days or weeks right now. Their research has applications for detecting mosquito-borne diseases like dengue fever and Zika. This technology has the potential to address the most common Aedes mosquito transmitted disease in North Carolina, (La Crosse encephalitis) which persistently impacts residents in Western North Carolina.

Dr. Byrd and Dr. Huffman have received a two-year grant from NCInnovation to scale the technology for mass-market global use and formalize support from an industry partner.

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Competitive Advantage

- Technology is impactful as it uses a single tool and customized data (spectral) libraries, without the need for consumable reagents, to efficiently do the work (i.e., identify mosquitoes, detect viruses, assess risk) of multiple professionals.
- Direct benefits to western NC citizens as La Crosse virus is endemic in western NC counties.
- Potential commercialization partners.
- Team is well-suited for this phase of the project with support from a technical post-doc.
- If successful, significant cost-benefit over current methods.

Commercialization Focus

- Develop diagnostic methods for mass-market global use.
- Explore public health laboratory demand for arborvirus detection and prevention
- Formalize support from industry partner.
- Form startup vehicle for further development of technology beyond NCI funding.

Brian Byrd, Ph.D. Professor, Environmental Health Sciences

Western Carolina University

INDUSTRY: Biohealth

TOTAL GRANT AWARD: $999,963 | YEAR 1: $587,412 and YEAR 2: $412,551

TABLE 1.4.4: West Region | Appalachian State University – Pilot Grant

Rahman Tashakkori

Predicting and Preventing Honey Beehive Die-off

The Beemon system, developed by Dr. Rahman Tashakkori, PH.D., presents a unique and innovative tool for decreasing honeybee hive die-off and increasing honey beehive yield. This project aims to produce turnkey products for commercial and amateur beekeepers to monitor hives while providing data that can be used to preserve the health of honeybees more efficiently and accurately. A recent **study** found honeybee colonies, which are vital to agriculture and the food supply, have been dying at staggering rates.

Dr. Tashakkori has received a two-year grant from NCInnovation to scale the technology, develop IP, and identify industry partners

Competitive Advantage

- There is a significant need for a monitoring system that efficiently and accurately monitors the hives and provides data that can be used to determine their health.
- Beemon is an effective monitoring tool that predicts swarm events and other key activities correlated with hive health. Also, the system can help amateur beekeepers who own many hives in the US and often need more resources and knowledge to monitor their hives.
- Clear pathway to commercial applications.
- Technology aligns with the NCI AgTech focus and NC as a state has a significant expertise in this area.
- Strong regional community engagement with local test sites secured.

Commercialization Focus

- Further customer discovery and competitive analysis.
- Development of commercial-industrial hive components and residential whole-hive systems for the mass-market.
- IP development plan to mitigate risk.
- Industry partner identification.

Rahman Tashakkori,
Ph.D. Distinguished Professor,
Computer Science

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Appalachian STATE UNIVERSITY

INDUSTRY: AgTech
TOTAL GRANT AWARD: $641,951 | YEAR 1: $300,460 and YEAR 2: $341,491

TABLE 1.4.5: Piedmont Region | North Carolina A&T University – Pilot Grant

Kristen Dellinger

Novel Bovine Milk Drug Delivery Mechanism

The blood-brain barrier prevents many drugs from effectively treating neurodegenerative diseases such as Alzheimer's disease. Kristen Dellinger, Ph.D., Assistant Professor, Nanoengineering, has led the development of a novel method to carry therapeutic agents across the blood-brain barrier, improving the delivery of therapies. This technology has the potential to be transformative for the delivery of neurological therapy with broad economic and societal impacts.

Dr. Dellinger has received a two-year grant from NCInnovation to further develop the technology and engage industry partners.

Competitive Advantage

- Proposed technology offers a novel approach to develop therapeutics to cross the blood brain barrier.
- The approach is well-reasoned, and effective delivery platform would be easily licensable.
- Dellinger Lab has ongoing projects on surface functionalization of EVs using aptamers, which may be leveraged for this project should alternative approaches be needed.
- Technology is well-aligned with university and regional/statewide capabilities and strengths as well as the nation/world-wide important technologies.
- Potential to be transformative as a platform for delivery of neurological therapies with significant impact.

Commercialization Focus

- Risk mitigation related to testing.
- Comparison data v. other nanoparticle delivery platforms.
- Engage with industry to further develop multi-use pathways.

Kristen Dellinger, Ph.D.
Assistant Professor,
Nanoengineering

NCINNOVATION

INDUSTRY: Biohealth
TOTAL GRANT AWARD: $369,024 | YEAR 1: $184,512 and YEAR 2: $184,512

TABLE 1.4.6: Piedmont Region | University of North Carolina at Greensboro – Pilot Grant

Hemali Rathnayake
Lithium Purification

Hemali Rathnayake, Ph.D., Professor, Nanoscience, has led the development of a cost-effective and efficient lithium refining process for converting unrefined lithium sources into battery-grade lithium carbonate (LCE). The global demand for lithium is experiencing substantial growth for its primary role in energy storage, electronic bikes, electrification of tools, and other battery-intense applications. Right now, China controls approximately 65% of the world's lithium refining capacity. North Carolina has a large and growing lithium and battery industry. Dr. Rathnayake's refining technology has the potential to boost a sustainable domestic supply chain for lithium-based products.

Dr. Rathnayke has received a two-year grant from NCInnovation to scale the refining technology for mass production and secure additional industry partnerships.

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Competitive Advantage

- Existing facilities could incorporate the device without rebuilds.
- Addresses the issue of limited/slow lithium extraction and purification hindering the industry – currently all domestic lithium purification is outsourced to China.
- The lithium processing technology aligns well with the technical focuses of both the NC region and overall state with battery producers and other players in the Li-ion battery value chain located near Greensboro (Toyota, Soelect, Forge Battery, etc.) and Albemarle being HQ'd near Charlotte.
- Excellent plan to partner with the local NC business community and the potential to create 100 jobs.
- High-potential to stay in NC and have an impact in the state.
- Well-rounded team with deep subject matter expertise, business acumen. PI has entrepreneurship training (ICORPS).
- Lithium is key to the region in support of Toyota battery production.

Commercialization Focus

- Scale and go-to-market execution.

Hemali Rathnayake, Ph.D.
Professor, Nanoscience

UNCG

INDUSTRY: Energy Transition & Electrification
TOTAL GRANT AWARD: $404,999 | YEAR 1: $404,999

TABLE 1.4.7: Charlotte Region | University of North Carolina at Charlotte – Pilot Grant

Jordan Poler
Drinking Water Purification

Jordan Poler, Ph.D., Professor of Chemistry at UNC Charlotte, has developed patented materials that remove PFAS and other compounds prohibited by the U.S. Environmental Protection Agency from drinking water more effectively than solutions currently available in the marketplace.

Dr. Poler has received a one-year grant from NCInnovation to continue development of an affordable solution for the end user and secure investment from the private sector to bring patented materials to the marketplace.

Competitive Advantage

- Novel nanoscale ion-exchange resin materials remove compounds more effectively than those currently available in the marketplace.
- Solution reflects strengths at UNC Charlotte in nanoscience, and statewide interests in PFAS removal.
- Technology fits well within an active national market for sustainable technologies specific to PFAS removal.
- Strong progress to date and direction in aligning compatibility with existing filters and home purification systems at a competitive consumer price point.
- Existing patents are already licensed to naneXPure, and MOU is in place to validate and manufacture developed materials.
- Local manufacturing partners identified in Monroe located in Union County.

Commercialization Focus

- Communication of competitive advantage.
- Develop market-penetration strategies.

Jordan Poler, Ph.D.
Professor Chemistry

NCINNOVATION

UNIVERSITY OF NORTH CAROLINA CHARLOTTE

INDUSTRY: Biohealth
TOTAL GRANT AWARD: $400,971 | YEAR 1: $400,971

TABLE 1.4.8: Charlotte Region | University of North Carolina at Charlotte – Pilot Grant

Sukumar Kamalasadan

Power-grid Efficiency

Grid Ancillary services with Uninterruptible Power Supply ("GAUPS"), developed by Dr. Sukumar Kamalasadan, Ph. D., provides uninterrupted, pristine power quality to sensitive load customers, such as commercial or industrial companies where prolonged power outages could cause economic, health, environment, or public safety problems. The technology simultaneously delivers reserve capacity and essential ancillary services to utilities to address unexpected faults and improve reliability.

Dr. Kamalasadan has received a one-year grant from NCInnovation to continue technology development and develop use case information for specific customers in preparation for engagement with private investors.

Competitive Advantage

- GAUPS technology addresses the $150+ billion annual cost of poor power quality in America (Department of Energy)
- Technology is already reasonably mature, and they expect significant advancement during the award period
- The research team is heavily connected with Duke Energy, providing industry support for the technology
- Large potential impact to NC, particularly in rural regions through the creation of manufacturing jobs, energy conservation and commercial savings by avoiding power interruption
- Offers significant advantage for a region to offer *quality of power* to attract manufacturing companies

Commercialization Focus

- Understanding and mitigating risk associated with scale-up.
- Articulation of their specific competitive advantage.

Sukumar Kamalasadan, Ph.D. Professor & ECE Research Coordinator

NCINNOVATION

UNIVERSITY OF NORTH CAROLINA CHARLOTTE

INDUSTRY: Energy Transition & Electrification
TOTAL GRANT AWARD: $354,607 | YEAR 1: $354,607

FY25 Spring Grant Awarded Projects (May 2025)

Building on the success of the Pilot Grant program a state-wide RFP process was issued in the fall of 2024 to all 16 public universities. On May 14, 2025, the NCI Board unanimously approved 17 projects shown in *Figure 1.2: Map of FY25 Spring Grant Awards*, which have achieved proof of concept, show commercial promise, and have the potential to drive job creation and economic growth across the state. A total of $13.6 million in awards was spread among 12 North Carolina public universities following the NCI Board's decision after a multi-month review and evaluation process led by external panels of subject matter experts and overseen by the NCI Board's Program Committee.

A summary of the total funding awarded for the entire FY25 Spring Grants program is shown in *Table 1.5: FY25 Spring Grant Awards Detailed Budgets by Year of Spending*. The funding overview for each of the 17 FY25 Spring Grant awards can be found in *Table 1.6: FY25 Spring Grants - Funded Projects Overview* which is grouped by region and lists the recipient university, name of the principal investigator (PI), award amount, industry, and the project title.

Individual grant narratives for the FY25 Spring Grant program are grouped by region and are either a one- or two-year grant. See *Table 1.7.1, Table 1.7.2, Table 1.7.3, Table 1.7.4, Table 1.7.5, Table 1.7.6, Table 1.7.7, Table 1.7.8., Table 1.7.9, Table 1.7.10, Table 1.7.11, Table 1.7.12, Table 1.7.13, Table 1.7.14, Table 1.7.15, Table 1.7.16, and Table 1.7.17.* The recipient university and name of the PI are listed at the top of each individual grant narrative. See *Table 6.1: Action Plan for NCI Funded Projects* for information on metrics and performance indicators for all projects.

FIGURE 1.2: Map of FY25 Spring Grant Awards

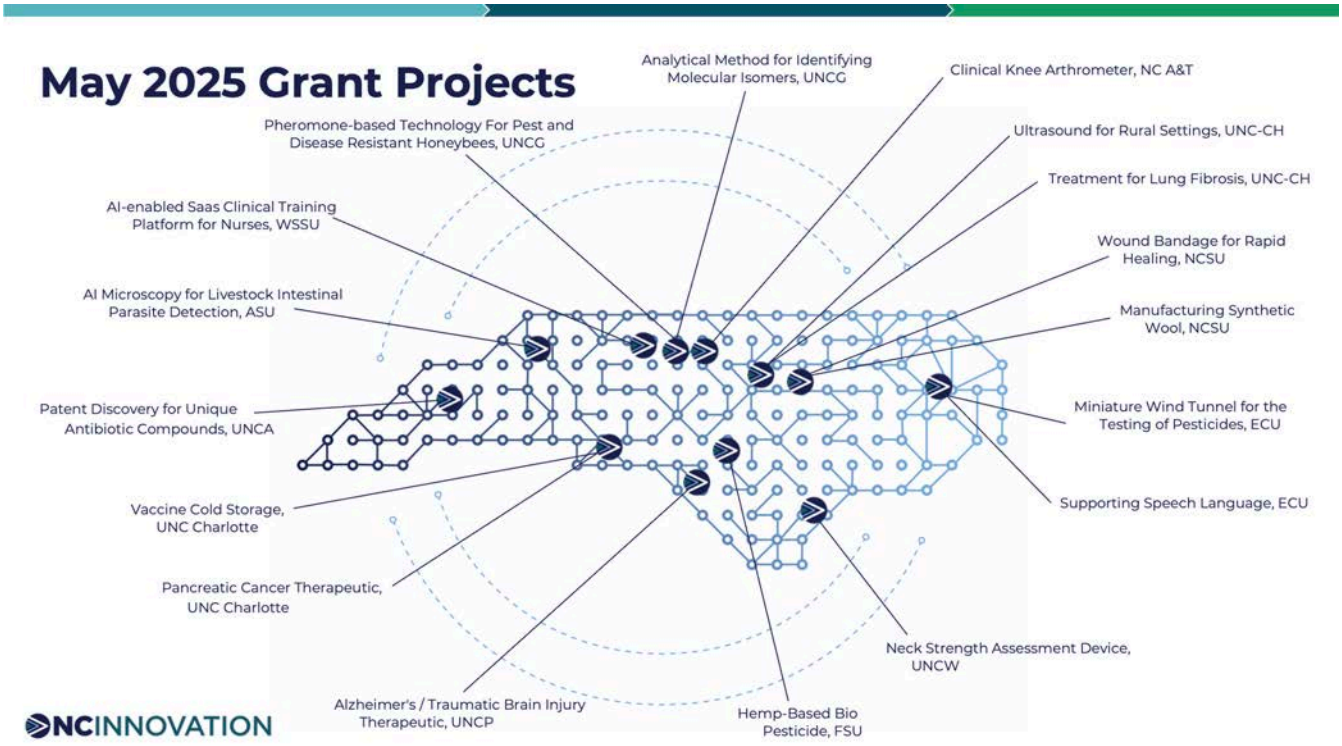


TABLE 1.5: FY25 Spring Grant Awards Detailed Budgets by Year of Spending

NCINNOVATION

FY25 Grants Summary of Awardee Budgets

CATEGORY	DESCRIPTION	BUDGET SPEND Year 1	Year 2
PERSONNEL	***Researcher time/effort, course-buyout, admininstration and oversight of grant management and reporting***		
Faculty		$ 999,624	$ 850,679
Non-faculty research staff (e.g., technicians, staff scientists)		$ 845,375	$ 753,216
Trainees (undergraduate, graduate, and postdoctoral researchers)		$ 563,310	$ 554,158
Grants administration (post-award support)		$ 64,019	$ 47,992
Project managers		$ 247,609	$ 252,986
Administrative support		$ 33,917	$ 20,547
Programmatic support (e.g., innovation and entrepreneurship staff)		$ -	$ -
Other		$ 13,469	$ 15,000
Fringe Benefits expense		$ 44,021	$ 44,021
TOTAL		**$ 2,811,344.88**	**$ 2,538,598.35**
MATERIALS, SUPPLIES & EQUIPMENT	***Equipment, rent, utilities, and materials to conduct research***		
Equipment		$ 466,790	$ 73,775
Materials & Supplies		$ 332,315	$ 184,987
Other		$ 99,709	$ 73,511
TOTAL		**$ 898,814.35**	**$ 332,273.00**
TRAVEL	***Travel to meetings with partners, conferences, etc.***		
Travel		$ 55,357	$ 53,833
TOTAL		**$ 55,357.40**	**$ 53,833.44**
SERVICES, SUBCONTRACTS, CONSULTING FEES	***Market fit research, patent landscaping, technical validation, legal fees, etc.***		
Market research	Ongoing market research	$ 43,250	$ 80,000
Tech and business development	Support tech development, startup, and licensing (travel to conferences for customer development)	$ 456,420	$ 336,900
Intellectual property	Manage IP/technology development	$ 231,344	$ 93,400
Legal fees	Direct support for initial patent portfolio development	$ 278,500	$ 125,500
Industry Fellows and Consultants	Industry relationship development and mentorship, develop expanded network of industry advisors to	$ 156,000	$ 152,000
Executives in residence (EIRs)	Scout, support, advise and mentor opportunities	$ 410,081	$ 336,037
TOTAL		**$ 1,575,595.00**	**$ 1,123,837.00**
SUBAWARDS			
Subawards		$ 1,064,117	$ 812,759
TOTAL		**$ 1,064,117.00**	**$ 812,759.00**
OTHER EXPENSES			
Contract research organization regulatory testing & other expenses		$ 1,187,037	$ 1,122,261
TOTAL		**$ 1,187,037.00**	**$ 1,122,261.00**
TOTAL ANNUAL SPEND		**$ 7,592,266**	**$ 5,983,562**

Summary of the above is for the 17 grants awarded by the Board in the NCI FY25 Grant Progam's Spring Cycle.

TABLE 1.6: FY25 Spring Grants - Funded Projects Overview

Region	PI Name	University	Award Amount	Industry	Project Title
East	Shirley Chao	FSU*	$1,088,986	AgTech	Hemp-based bio pesticide for use in commercial poultry houses
East	Ben Bahr	UNCP	$1,113,758	Biohealth	Alzheimer's / Traumatic Brain Injury therapeutic
East	Patrick Briley	ECU*	$435,655	Health Tech	Stuttering platform for speech language pathologists
East	Stephanie Richards	ECU*	$497,882	AgTech	Miniature wind tunnel for the testing of pesticides
East	Lindsey Schroeder	UNCW*	$850,644	Health Tech	Neck Strength Assessment Device
West	Amanda Wolfe	UNCA	$102,600	Biohealth	Patent Discovery for Unique Antibiotic Compounds
West	Zachary Russell	ASU*	$2,309,865	AgTech	AI Microscopy for Livestock Intestinal Parasite Detection
Piedmont	Randy Schmitz	NCA&T*	$578,904	Health Tech	Clinical knee arthrometer to measure knee laxity
Piedmont	Kaira Wagoner	UNCG	$553,567	AgTech	Pheromone-based technology for pest and disease resistant honeybees
Piedmont	Liam Duffy	UNCG	$253,000	Biohealth	Analytical method for identifying molecular isomers
Piedmont	Leslee Battle & Tori Brown	WSSU	$1,246,200	Health Tech	AI-enabled Saas clinical training platform for nurses
Piedmont	Amay Bandodkar	NCSU	$699,923	Biohealth	Wound bandage for rapid healing
Piedmont	Ericka Ford	NCSU	$445,823	Advanced Manufacturing	Manufacturing synthetic wool more sustainably and with less health risk
Piedmont	Jeffrey Stringer	UNC-CH	$500,000	Biohealth	Ultrasound for rural settings
Piedmont	Ronit Freeman	UNC-CH	$967,974	Biohealth	Treatment for lung fibrosis
Charlotte	Susan Trammell	UNCC*	$810,505	Biohealth	Vaccine cold storage
Charlotte	Pinku Mukherjee	UNCC*	$1,120,542	Biohealth	Pancreatic cancer therapeutic
TOTAL AWARD AMOUNT: $13,575,828					

KEY: (*) denotes a hub university.

TABLE 1.7.1: East Region | Fayetteville State University – FY25 Spring Grant

Hemp Biopesticide

Dr. Shirley Lee Chao, FSU

Project Description

Shirley Chao, PhD, Professor of Biology at Fayetteville State University, has developed patented, non-toxic pesticide products derived from hemp which effectively target insect pests affecting poultry houses. The pesticide formulations control adult litter beetles and disrupt the pests' development and reproduction. While the range of potential applications is large, the initial focus will be on litter beetles infesting feed and bedding in poultry houses. Dr. Chao hopes her nontoxic pesticides will reduce beetle pests, decrease structural damage as well as improve the health of birds.

Dr. Chao has received a two-year grant from NCInnovation to field test the efficacy of the pesticide formulations in breeder and broiler house simulations, to determine acute toxicity, and to assess commercialization of the pesticides through licensing partners.

Competitive Advantage

- There is an unmet need for safe pesticides that can be applied inside of poultry houses while birds are present.
- Preliminary tests indicate that the pesticide formulations are nontoxic to vertebrates such as chickens and fish.
- Our hemp-based pesticide products can be integrated well in any farm using an Integrated Pest Management (IPM) approach.
- This non-toxic option has the potential to improve health outcomes and reduce costs for farmers in North Carolina, while also enhancing environmental sustainability.
- Technology aligns with biotech strengths at FSU, the Eastern NC region, and NC more broadly.

Commercialization Focus

- Potential licensing pathways.
- EPA and USDA regulatory milestones.

Dr. Shirley Lee Chao, Professor

Mike David, Founder, Quant-Agro

INDUSTRY: AgTech
TOTAL GRANT AWARD: $1,088,986 | YEAR 1: $627,523 and YEAR 2: $461,463
NOTE: PI reapplied after receiving feedback in Pilot Grant program

TABLE 1.7.2: East Region | University of North Carolina at Pembrooke – FY25 Spring Grant

Alzheimer's and Traumatic Brain Injury Therapeutic

Dr. Ben A. Bahr,
UNCP

Project Description

Professor Bahr has developed unique series of molecules to treat Alzheimer's disease and to prevent the onset of the disorder in high-risk individuals. The therapeutic avenue safely targets the lysosomal pathway to enhance clearance of disease-causing protein oligomers and deposits, thereby restoring the integrity of synapses used for cognition. Supported by proof-of-concept studies, Dr. Bahr hopes the drug discovery efforts will provide a widely accessible, easily administered oral drug to reduce the number of people suffering from Alzheimer's disease, mild cognitive impairment, and other disorders.

Dr. Bahr has received a two-year grant from NCInnovation to accelerate the drug development program, raise funding, attract investors, and prepare an IND application for the FDA.

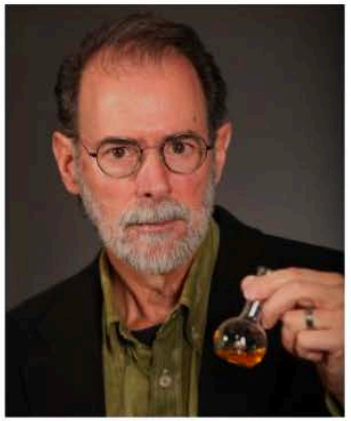
NCINNOVATION UNC PEMBROKE

Competitive Advantage

- Oral delivery to avoid the difficulty and expense of infusion therapies, and for easier combination method with other therapies.
- Fills unmet need for a disease-modifying treatment in pill form with good efficacy, for widespread adoption across communities.
- New MoA – targeting the lysosomal protein clearance pathway to reduce multiple pathogenic proteins contributing to AD (amyloid-beta, pathogenic tau species, TDP43).

Commercialization Focus

- Partnering with big pharma
- Grant funding and seed financing strategy
- Clinical and regulatory plan
- Paths to indications expansion: MCI, PD, FTDs, TBI



Dr. Ben A. Bahr,
Chair and Professor

Philippe Chemla,
President, Ampfuul LLC

INDUSTRY: Biohealth
TOTAL GRANT AWARD: $1,113,758 | YEAR 1: $442,571 and YEAR 2: $671,187
NOTE: PI reapplied after receiving feedback in Pilot Grant program

TABLE 1.7.3: East Region | East Carolina University – FY25 Spring Grant

Speech language Pathologist Support

Dr. Patrick Briley,
ECU

Project Description

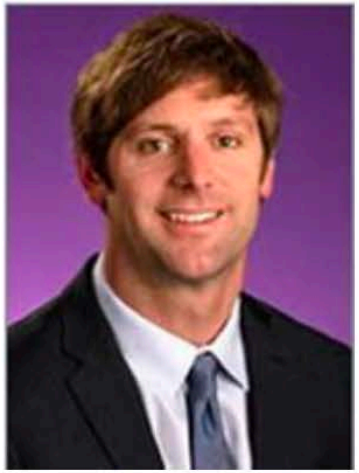
Dr. Patrick Briley and team developed a platform technology to help speech language pathologists and their patients treat stuttering through a digital platform that can carry on conversations, recognize speech patterns, and recommend specific lessons based on those patterns. The platform also addresses social anxiety by providing immersive VR practice environments and AI-driven customized treatments plans, and it includes case management tools.

Competitive Advantage

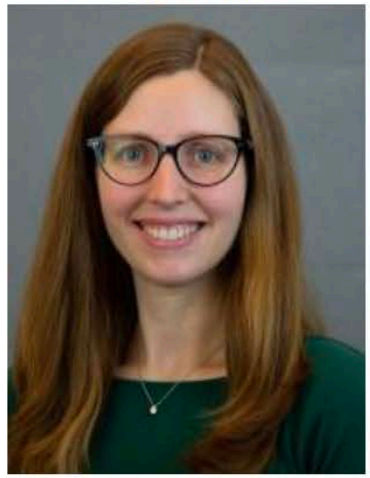
- Systematic approach for speech language pathologists (SLPs) in their work with people who stutter.
- The end product will include an engaging, self-paced cloud-based platform that can be completed by individuals who stutter at home under the guidance of a SLP.
- Offers a digital platform for SLPs that addresses heavy workloads by simplifying administrative efforts and aids in progress monitoring.
- Addresses social anxiety in those who stutter by bridging the safe spaces of the clinical setting to the more anxiety provoking real word through immersive, virtual environments and interactions with realistic avatars.

Commercialization Focus

- Focus groups to determine which 360 environments will be constructed, to induce similar social anxiety that is experienced in the real world by those who stutter.
- Build avatars that will participate in unscripted conversation with people who stutter, mimicking real world anxieties that are present in social interactions
- Platform's content will be updated and enhanced with additional instructional videos to be used in therapy, and immersive environments will be updated to the platform, which will collectively be put into the hands of end-users for customer discovery efforts, facilitating final revisions.
- Create a comprehensive commercialization strategy, including a roadmap with regulatory considerations, pricing strategy, distribution, and potential go-to-market partners or pilots.
- Conduct team planning by defining organizational team needs and identifying co-founder gaps or technical advisors needed to strengthen the team's profile in the eyes of funders and strategic partners, and (3) creating role descriptions, recruiting plans, and potential org charts.



Dr. Patrick Briley,
Associate Professor



Julianne Roseman,
Consultant

INDUSTRY: Health Tech
TOTAL GRANT AWARD: $435,655 | YEAR 1: $280,819 and YEAR 2: $154,836
NOTE: PI reapplied after receiving feedback in Pilot Grant program

TABLE 1.7.4: East Region | East Carolina University – FY25 Spring Grant

Compact Wind Tunnel

Dr. Stephanie Richards, ECU

Project Description

Stephanie Richards, PhD, Professor of Environmental Health, and Sinan Sousan, PhD, Associate Professor of Public Health, have developed a patent-pending compact wind tunnel for rapid, low-cost insecticide efficacy testing in mosquitoes. This innovation provides an alternative to costly, weather-dependent field trials, enabling public health programs to make faster, evidence-based decisions that reduce mosquito-borne disease transmission and improve disaster recovery.

Dr. Richards and Dr. Sousan have received a two-year grant from NCInnovation to finalize the wind tunnel design and establish a contract research organization in North Carolina.

Competitive Advantage

- Globally, billions of people are at risk of contracting mosquito-borne diseases (e.g., dengue, malaria, West Nile encephalitis).
- Effective insecticide testing does not currently exist on the market, wasting time and resources and endangering public health.
- First-of-its-kind compact, patent-pending device validated in Pest Management Science (2024).
- Replaces costly, logistically complex field trials with rapid, reliable laboratory testing.
- Directly supports NC/Eastern NC public health needs where hurricanes/flooding drive mosquito surges, impeding recovery and tourism.
- Strong foundation with company formation and prior NC Biotech Center grant. The company is being formed to license further work and apply for SBIR/STTR.

Commercialization Focus

- Establish a contract research organization (CRO) offering insecticide efficacy testing services.
- Develop partnerships with CRO clients, including NC mosquito control programs, industry, and others.
- Launch e-commerce platform to support fee-for-service business model.
- Expand applications beyond mosquitoes to other agricultural and public health pests.

Dr. Stephanie Richards, Professor

Dr. Sinan Sousan, Associate Professor

Michael Fath, Founder and President Cavabio Consulting, LLC

INDUSTRY: AgTech
TOTAL GRANT AWARD: $497,882 | YEAR 1: $317,033 and YEAR 2: $180,849

TABLE 1.7.5: East Region | University of North Carolina at Wilmington – FY25 Spring Grant

Neck Strength Assessment Device

Dr. Lindsey Schroeder, UNCW

Project Description

The Neck Strength Assessment Tool (NSAT-System) is a portable, non-invasive device that measures both static and dynamic neck strength using onboard sensors and a mobile app interface. The compact system is designed for military and sports applications to determine traumatic brain injury risk. Current device integrates dynamic testing with AI/ML-driven analytics to provide real-time, predictive insights into neuromuscular health risks.

Competitive Advantage

- Dynamic + Static Assessments
- AI/ML Predictive Analytics
- Mobile + Cloud Connectivity
- Robust IP Protection
- Scalable for sports, military, and clinical use

Commercialization Focus

- MVP development
- Pathway to market: regulatory / quality
- IP strategy and Product Differentiation
- Customer identification and Go-to- Market Strategy

Dr. Lindsey Schroeder, Associate Professor

Dr. Alexander McDaniel, Associate Professor

Dr. Kevin Cahill, Medical Device Entrepreneur

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UNCW University of North Carolina Wilmington

INDUSTRY: Health Tech

TOTAL GRANT AWARD: $850,644 | YEAR 1: $325,021 and YEAR 2: $525,623

NOTE: PI reapplied after receiving feedback in Pilot Grant program

TABLE 1.7.6: West Region | University of North Carolina at Asheville – FY25 Spring Grant

Targeting Drug-Resistant Bacteria

Dr. Amanda L. Wolfe, UNCA

Project Description

Amanda L. Wolfe, PhD, Professor of Medicinal Chemistry, and P. Ryan Steed, PhD, Associate Professor of Biochemistry, are working to secure a patent for novel small molecule antibiotics capable of treating infections caused by pathogenic bacteria. These antibiotics work through a novel mechanism of action, which the team hopes will expand the possible targets for antibiotic discovery and development to combat the growing number of antibiotic resistant pathogens both in North Carolina and Globally.

Drs. Wolfe and Steed secured a 1-year award to interrogate the intellectual property landscape, secure a patent, and prepare for pre-clinical evaluation.

Competitive Advantage

- Misuse and overuse of classic antibiotics since the 1960s has caused the number of antibiotic-resistant infections, especially those caused by Gram-negative pathogens, to increase rapidly. If new molecules with novel molecular targets are not developed, bacterial infection could become a leading cause of death by 2050.
- Between 2010-2020 only 6 antibiotics targeting clinically unprecedented molecular targets in Gram-negative bacteria were developed, and only 2 were evaluated in clinical trials, leaving ample room for discovery and development.
- Economic barriers that have limited antibiotic development by the pharmaceutical industry can be reduced by leveraging the educational mission of predominantly undergraduate institutions, like UNC Asheville, for lead development and preliminary activity and safety assessment.
- >35 years combined expertise of the PIs in drug development and biochemical interrogation of essential biomolecules who have mentored more than 100 undergraduates in research supported by funding from NIAID.

Commercialization Focus

- Evaluation of IP landscape and completion of a patent application to secure IP for the novel series of antibiotics.
- Development of scientific plans and strategic partners to complete preclinical evaluation with stage 2 funding.

Dr. Amanda L. Wolfe, Professor

Dr. Ryan Steed, Associate Professor

Dr. Tom Pitler, Kineticos

INDUSTRY: Biohealth
TOTAL GRANT AWARD: $102,600 | YEAR 1: $102,600
NOTE: PI reapplied after receiving feedback in Pilot Grant program

TABLE 1.7.7: West Region | Appalachian State University – FY25 Spring Grant

Identifying Livestock Parasites Using AI

Dr. Zachary Russell, ASU

Project Description

Intelligent Robotic Imaging Systems (IRIS) aims to revolutionize microscopy by combining artificial intelligence and automated techniques to enhance image quality and dramatically increase analysis speed. Our AI-enhanced optical microscopes utilize novel illumination techniques to increase contrast and improve image clarity. Additionally, IRIS employs specially adapted AI classification techniques to enhance object segmentation and improve identification accuracy.

Our goal is to commercialize this technology across various fields such as medicine, biology, geology, forensics, manufacturing, art, and history. Through our innovative technology and seamless integration between hardware, software, and AI, IRIS will overcome traditional microscopy limitations and democratize microscopy use across a wide range of applications.

Competitive Advantage

- Cost: Shipping, lab costs, etc. IRIS brings automated image analysis to bear on parasite identification at a lower price point.
- Efficiency: Automated analysis significantly reduces the time required for each fecal sample, allowing labs to process more samples with fewer staff and less resources. It would also allow veterinarians to offer mobile testing onsite, and for large farming operations to run fecal samples in-house, dramatically reducing the time and cost over current options.
- Versatility: IRIS is adaptable to various livestock species and parasite types, making it a valuable tool across a wide range of livestock operations.
- Accuracy: AI-powered image analysis leads to greater precision and less bias in parasite identification, ensuring proper diagnosis and treatment.
- Traceability: IRIS enables archival storage of digital images, detailed information of sample processing, including egg counts, egg size census, and confidence assessment of analysis for certification of diagnosis and streamlined quality control and quality assurance compatibility.

Commercialization Focus

- Detailing the current process including time, personnel, equipment and cost
- Demonstration of IRIS capabilities at selected NCDA labs
- Trial runs with NC farmers in parallel with current (manual) process

Dr. Zachary Russell,
Assistant Professor

Kevin Sparks,
Dir. of Advanced Technology, Corning

INDUSTRY: AgTech
TOTAL GRANT AWARD: $2,309,865 | YEAR 1: $1,195,106 and YEAR 2: $1,114,759

TABLE 1.7.8: Piedmont Region | North Carolina A&T State University – FY25 Spring Grant

Clinical Knee Arthrometer

Dr. Randy Schmitz, NC A&T

Project Description

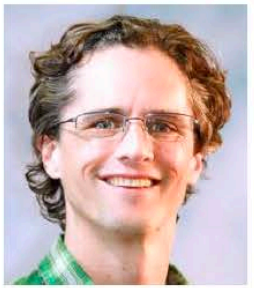
Randy Schmitz PhD, Professor and Chair in the Department of Kinesiology at NC A&T University, and Sandy Shultz PhD, Professor Emeritus at UNCG, are developing a portable, FDA Class I clinical knee arthrometer to provide objective and reproducible measures of knee joint laxity to enhance clinical assessment of knee ligament injuries. Greater knee joint laxity is a key indicator of knee joint integrity and predictor of future injury risk. Our goal is to equip clinicians with a precision instrument that enhances diagnostic accuracy, informs rehabilitation progression and return to play decisions, and identifies at-risk individuals with minimal training. The team has received a two-year NCInnovation grant to take a multidisciplinary engineering approach to define (Aim 1), creatively design and build (Aim 2) and conduct extensive customer discovery on (Aim 3) a Phase I prototype that will inform and refine the design for future Phase 2 activities.

Competitive Advantage

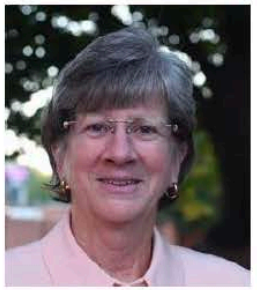
- Over 10 million patients are seen in ~90,000 U.S. health care settings for knee injuries that could be objectively evaluated by a knee arthrometer.
- Clinicians are dissatisfied with current devices that are difficult to use and lack precision.
- End user feedback note strong interest in using the device for injury risk screening (87%), post-surgical assessment (95%), and monitoring joint health (77%).
- Our technology adds to NC's growing biotech strengths in medical devices and equipment.
- We are an experienced team comprised of clinicians, researchers, computer scientist, business strategist, and industry experts in product development.
- Strong IP position with patent awarded (April 2025).

Commercialization Focus

- Conversion of validated lab prototype to Phase 1 clinical protype.
- Complete clinical FDA and regulatory milestones.
- Attract potential licensees, investors, and commercial partners.
- Company formed to support business development and establish marketing, sales, and distribution strategy for commercial launch.



Dr. Randy Schmitz,
Professor and Chair



Sandy Shultz,
Arthrolax Solutions, LLC

Amit Sawant,
North Carolina State University

INDUSTRY: Health Tech
TOTAL GRANT AWARD: $578,904 | YEAR 1: $370,012 and YEAR 2: $208,892
NOTE: PI reapplied after receiving feedback in Pilot Grant program

TABLE 1.7.9: Piedmont Region | University of North Carolina at Greensboro – FY25 Spring Grant

Pheromones for Honeybees

Dr. Kaira Wagoner, UNCG

Project Description

UBeeO™ is a groundbreaking new tool designed to measure honey bee colony pest and disease resistance. Beekeepers use UBeeO to enhance breeding and management decisions, leading to improved honey bee health and colony survival. In 2025, Dr. Kaira Wagoner of the University of North Carolina Greensboro was awarded a two-year grant to optimize existing UBeeO applications and explore development of a new, supplemental probiotic to further improve honey bee health and colony survival.

Competitive Advantage

- Honey bee colonies are dying around the globe, with record losses reported in 2024-25. Poor colony health is primarily caused by the deadly Varroa mite and growing resistance of Varroa to miticides beekeepers depend on. Thus, there is urgent need for sustainable Varroa control.
- Research on UBeeO and related technology aligns with the goals of UNCG's Plant & Pollinator Center and is critically important to agriculture, NC's #1 industry.
- Prior support for this technology includes funding from USDA, NCBC, NSF (STTR), and the One NC Small Business Program.
- Three patents related to UBeeO have been published and the company Optera has initiated commercialization.
- This work has the potential for global impact, including improved bee health, crop productivity, and food security.

Commercialization Focus

- Address technical challenges and improve user interface
- Prep, filling, & prosecution of patent for UBeeO applicator
- Investigate IP landscape related to probiotic development

Dr. Kaira Wagoner, Research Scientist

Charles Pemble, Founder, Tetran LLC

INDUSTRY: AgTech

TOTAL GRANT AWARD: $553,567 | YEAR 1: $306,059 and YEAR 2: $247,508

TABLE 1.7.10: Piedmont Region | University of North Carolina at Greensboro – FY25 Spring Grant

Rapid Isomer & Conformer Detection

Dr. Liam Michael Duffy, UNCG

Project Description

Dr. Liam Duffy, Assistant Professor of Chemistry & Biochemistry at UNC Greensboro, is developing a patented analytical instrument that can rapidly detect and identify molecular isomers and conformers without the need for labor-intensive method development work. Current approaches such as HPLC-MS and Ion Mobility Mass Spectrometry are slow, expensive, and molecule-specific, creating significant bottlenecks in pharmaceutical and agrochemical R&D. Dr. Duffy's device leverages modern microfabrication and electrode innovations to measure molecular dipole moments and rotational fingerprints, providing unique 3D shape information and resolving structural differences that conventional mass spectrometry cannot. Support from NCInnovation will enable experimental demonstration of isomer separation, advancement from TRL 3 to TRL 4, and preparation for commercial applications in pharmaceuticals, agrochemicals, and consumer products.

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UNCG

Competitive Advantage

- Eliminates labor-intensive method development required by HPLC-MS and IMMS, reducing analysis time from hours/days to minutes/seconds.
- Provides device-independent dipole moment and rotational fingerprint data, delivering unique 3D molecular shape information not available with conventional methods.
- Patented technology with proven feasibility.
- Addresses high-value analytical challenges in pharmaceuticals and regulated compounds

Commercialization Focus

- Experimentally demonstrate isomer and conformer separation
- Demonstrate relevance for pharmaceutical and regulated compounds, including distinguishing isomers of fentanyl and CBD/THC.
- Continue identifying additional high-value molecular targets in pharmaceuticals, agrochemicals, and consumer products where rapid isomer analysis provides clear advantage (such as PFAS, nitrosamines, drug/agrochemical metabolites, etc.
- Identify and engage academic collaborators to validate technology performance and expand research applications.
- Build partnerships with industry stakeholders to support commercialization and secure follow-on funding.

Dr. Liam Michael Duffy,
Assistant Professor

Dipak Mahato,
CEO SeaChange Technologies

INDUSTRY: Biohealth
TOTAL GRANT AWARD: $253,000 | YEAR 1: $253,000

TABLE 1.7.11: Piedmont Region | Winston Salem State University – FY25 Spring Grant

Virtual Reality to Train Nurses

Dr. Leslee Battle and Dr. Tori Brown, WSSU

Project Description

Dr. Leslee Battle, Dr. Tori Brown, and Ryan Schmaltz (director of the Virtual Reality Nursing Program at Winston-Salem State University) are developing state-of-the-art technologies to train the next generation of nurses with Patient Ready, an artificial intelligence-enabled platform that delivers realistic training simulations that are medically accurate and emotionally responsive. The system will mimic real-world training with its adaptive learning capabilities and may help address the nursing shortage facing North Carolina and the country.

Competitive Advantage

- **Clear Need:** Addresses an urgent global shortage of over 10 million clinicians by 2030
- **AI-Powered Training:** Lifelike patient interactions that adapt in real time, delivering efficient, scalable training.
- **Scalable & Flexible:** Works across universities, hospitals, and health systems with minimal infrastructure requirements.
- **Exponential Customer ROI:** Proven to reduce onboarding costs, improve retention, and strengthen workforce readiness.

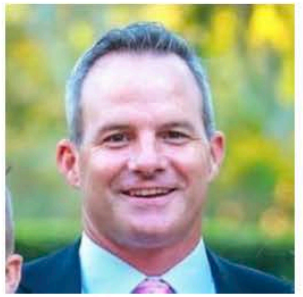
Commercialization Focus

- Patient Ready, incorporated in February 2024, launched publicly in June 2025 and has quickly gained marketshare. The company is generating revenue, has secured venture backing, has 10+ employees, and is selling in more than six countries.

Dr. Tori Brown, Research Faculty

Dr. Leslee Battle, Dean of Health Sciences

Ryan Schmaltz, Program Director and CEO Patient Ready



Rob Kade, CRO Admiral

NCINNOVATION

WINSTON-SALEM STATE UNIVERSITY

INDUSTRY: Health Tech

TOTAL GRANT AWARD: $1,246,200 | YEAR 1: $655,400 and YEAR 2: $590,800

TABLE 1.7.12: Piedmont Region | North Carolina State University – FY25 Spring Grant

Electric Bandages for Rapid Wound Closure

Dr. Amay Bandodkar, NCSU

Project Description

Amay J. Bandodkar, Ph.D. Assistant Professor of Electrical and Computer Engineering, is developing a new type of wound bandage that can accelerate wound closure. The technology is designed to serve as an easy-to-use, inexpensive, and effective treatment for chronic wounds. Dr. Bandodkar hopes his work will improve wound healing outcomes especially to individuals who do not have easy access to advanced healthcare.

Dr. Bandodkar has received a two-year grant from NCInnovation to continue developing this technology, conduct preclinical studies, and attract quality outside investment.

Competitive Advantage

- Every day 6.5 million in the US suffer from chronic wounds. The mortality rate of this underserved market is 30%, which is equivalent to cancer. Current treatments are exorbitantly expensive and difficult to administer, resulting in a massive unmet need and opportunity to save lives.
- Our advanced wound treatment technology heals wounds faster, is easier to administer, and reduces costs to the healthcare system.
- The team includes experts in entrepreneurship, FDA regulations, clinical medicine, and medical device manufacturing.

Commercialization Focus

- Conducting thorough market survey and discussions with key stakeholders to identify clear technology differentiation compared to alternatives in the market.
- Generate strategies for scalable manufacturing of the bandages and identifying path for acquiring FDA approval for future clinical studies.
- Explore spin-off or licensing pathways.

Dr. Amay Bandodkar, Assistant Professor

Joseph Huber, COO EternaTear

NCINNOVATION

NC STATE UNIVERSITY

INDUSTRY: Biohealth

TOTAL GRANT AWARD: $699,923 | YEAR 1: $358,448 and YEAR 2: $341,475

TABLE 1.7.13: Piedmont Region | North Carolina State University – FY25 Spring Grant

Non-toxic Fiber Production

Dr. Ericka Ford,
NCSU

Project Description

Dr. Ford is advancing AcrylFLOW™, her patent-pending process that replaces the greenhouse gas intensive method for converting polyacrylonitrile (PAN) into synthetic wool (or acrylic fibers that retard flame) and precursors to carbon fiber (for use in lightweight composites). Her mission is to produce PAN-based fibers safely and sustainably—without hazardous chemicals—while securing a domestic supply chain that leverages the textile infrastructure in North Carolina and the Southeastern US. Over the next two years, her team will formulate PAN resins, spin fibers at an industrial scale, and conduct manufacturing trials that will feed into a techno-economic analysis. By project completion, potential customers will receive prototypes and datasheets for product evaluation.

Competitive Advantage

- Patent-Pending Technology – Exclusive US/EU license to AcrylFLOW™.
- Environmental Safety – Reduces CO2 footprint of synthetic wool, eliminates toxic chemicals, safer for workers and planet.
- Supply Chain Security – Creates domestic source of PAN fibers and carbon fiber precursors.

Commercialization Focus

- Partnerships with mills, carbon-fiber producers, and labs to accelerate adoption.
- Entry via defense textiles & protective apparel (Berry-compliant).
- Techno-economic validation → pilots → early production runs
- Expansion into carbon-fiber markets (automotive, energy, recreation).

Dr. Ericka Ford,
Associate Professor

Cheryl Wooten,
Business Development Lead
Nicelle Technologies

INDUSTRY: Advanced Manufacturing
TOTAL GRANT AWARD: $445,823 | YEAR 1: $221,390 and YEAR 2: $224,433

TABLE 1.7.14: Piedmont Region | University of North Carolina at Chapel Hill – FY25 Spring Grant

AI-Enabled Ultrasound for Rural Settings

Dr. Jeffrey S. A. Stringer, UNC-CH

Project Description

Dr. Stringer and his team aim to democratize obstetric ultrasound through FAMLI, an AI-enabled application that delivers real-time, accurate results. In just two minutes, providers with limited imaging experience can generate critical diagnostic insights—bringing prenatal care to communities that have long gone without.

With support from a one-year NCInnovation grant, Dr. Stringer and his team are pursuing FDA clearance for their gestational age (GA) and twin detection AI models. This milestone is the foundation of a larger vision: a suite of clinically validated tools designed to ensure every mother, everywhere, has access to safe and reliable prenatal care.

NCINNOVATION

THE UNIVERSITY of NORTH CAROLINA at CHAPEL HILL

Competitive Advantage

- Equipment: Cart-based ultrasound machines are expensive ($25k–$100k+), bulky, and require a constant power source. FAMLI runs on a commercially available tablet ($600) and pairs with several low-cost handheld point-of-care ultrasound probes ($1,500-$2,500).
- Imaging Expertise: Fetal measurements and views are typically obtained by trained and credentialed sonographers. FAMLI guides providers with limited imaging experience through a standardized sweep acquisition protocol.
- Interpretation Expertise: Interpreting ultrasound images and videos traditionally demands the expertise of an obstetrician-gynecologist or radiologist. FAMLI's AI analyzes sweeps and generates diagnoses, while still allowing for provider review and confirmation.

Commercialization Focus

- Regulatory & Clinical: FDA clearance, external validation studies, roadmap for additional models
- Technology: iOS and Android, multi-probe support, English and Spanish functionality, security audits for compliance and trust
- Commercialization: partnerships with POCUS manufacturers and imaging platforms, reimbursement via CPT code integration, real-world validation in federally qualified health centers, health departments and clinics

Dr. Jeffrey S. A. Stringer, Professor

Craig Zamary, GEN XYZ Ventures, LLC

INDUSTRY: Biohealth

TOTAL GRANT AWARD: $500,000 | YEAR 1: $500,000

TABLE 1.7.15: Piedmont Region | University of North Carolina at Chapel Hill – FY25 Spring Grant

Treatment for Fibrosis

Dr. Ronit Freeman, UNC Chapel Hill

Project Description

Ronit Freeman, Ph.D, Associate Professor of Applied Physical Sciences at UNC, is developing a first-in-class antifibrotic peptide to resolve scarring caused by idiopathic pulmonary fibrosis (IPF), affecting ~3M people worldwide. This therapy works by reconstituting healthy signaling cues to convert a profibrotic program into a pro-resolving one; returning the lung surface to a healthy state, thereby giving the patients back their ability to breathe. There is no current cure, and as many people die from IPF as from breast cancer (~40k US deaths annually), with North Carolina rates highest nationally for incidence, prevalence and mortality (195 per 100k), amounting to a $2.4 B/yr cost burden for the State.

Dr. Freeman has received a two-year grant from NCInnovation to continue developing the treatment, attract key investors and partners, and prepare for clinical trials. This follows a round of funding from UNC's Eshelman Innovation Institute, and two rounds of funding from Cleveland University Hospitals' Harrington Discovery Institute.

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Competitive Advantage

- Meeting unmet needs: Resolves existing lung fibrosis, as shown in animal models and human tissues. Current FDA approved therapies only slow the rate of decline but cannot stabilize or resolve fibrosis and make up an annual ~$3billion market.
- Posted to improve life expectancy and quality: 60% of eligible patients refuse currently available treatment (costs, side-effects, limited efficacy cited). Current life expectancy post-diagnosis 3-4 years, is only extended by lung transplant.
- Cross-cutting innovation: Broadly applicable across most forms of pulmonary fibrosis, including COVID-19 related fibrosis. Potentially applicable beyond lung, in chronic allograft dysfunction and other fibrotic organs (heart, liver, kidney).
- Aligns with local sector strengths: Dr. Freeman is a member of the Marsico Lung Institute at UNC and has presented at Triangle Venture Day 2025 with the support of UNC-CH's KickStart Venture Services, showcasing her commercialization progress to investors and leaders in therapeutics.

Commercialization Focus

- De-risking technology through characterization of MOA, toxicology, and non-GLP Pharmacokinetics-Pharmacodynamics with multiple routes of administration.
- Business revenue modeling and capital formation strategy
- FDA and regulatory milestones.

Dr. Ronit Freeman, Associate Professor

Philippe Chemla, President, Ampfuul LLC

INDUSTRY: Biohealth

TOTAL GRANT AWARD: $967,974 | YEAR 1: $514,877 and YEAR 2: $453,097

TABLE 1.7.16: Charlotte Region | University of North Carolina at Charlotte – FY25 Spring Grant

Vaccine Storage

Dr. Susan Trammell, UNC Charlotte

Project Description

Dr. Trammell has invented a novel drying process that uses light to dry vaccines and other biologics to create a stable form that can be stored at room temperature and rehydrated when needed. Most vaccines must currently be kept refrigerated or frozen and maintaining this "cold chain" accounts for the majority of vaccination program costs worldwide. Biologics like protein therapeutics and personalized medicine treatments face the same dependency. The cold chain adds significant expense and limits access across global healthcare markets for these products. Light-Assisted Drying provides a pathway to lower costs, simplified distribution, and expanded access to lifesaving treatments.

Dr. Trammell has received a two-year grant from NCInnovation to continue developing the drying process, broaden its application to a range of biologics, build strategic partnerships, and prepare the technology for commercialization.

Competitive Advantage

- LAD offers a faster, versatile, and cost-effective alternative to current stabilization methods such as freeze-drying.
- LAD's one-step process rapidly dries biologic products with minimal exposure to heat, making it suitable for a wide variety of biologics.
- The LAD technology aligns with North Carolina's strengths in biotechnology, life sciences, and optics.
- Recipient of a prior Translational Research Grant from the NC Biotechnology Center.
- Supported by academic and industry partnerships to validate and expand the technology.

Commercialization Focus

- Identification of beachhead markets to drive early adoption and demonstrate broad applicability.
- Development of commercialization pathways, including potential licensing agreements.
- Establishment of FDA and regulatory milestones to guide approval and industry adoption.

Dr. Susan Trammell, Professor

Dr. Rob Shutte, Archer Bio Consulting, LLC

INDUSTRY: Biohealth
TOTAL GRANT AWARD: $810,505 | YEAR 1: $451,050 and YEAR 2: $359,455
NOTE: PI reapplied after receiving feedback in Pilot Grant program

TABLE 1.7.17: Charlotte Region | University of North Carolina at Charlotte – FY25 Spring Grant

Pancreatic Cancer Therapeutic

Dr. Pinku Mukherjee, UNC Charlotte

Project Description

Dr. Pinku Mukherjee, the Irwin Belk Distinguished Professor of Cancer Research at UNC Charlotte, leads a team developing a novel T-cell engager derived from a patented monoclonal antibody originally created at the university. This therapy has demonstrated significant efficacy against chemotherapy-resistant pancreatic cancer. Pancreatic cancer is among the deadliest cancers, largely because it is usually diagnosed at late stages due to the absence of effective screening tools and its silent progression without obvious symptoms.

Dr. Mukherjee has received a two-year grant from NCInnovation to advance this novel therapy, build strategic partnerships and licensing opportunities, and lay the groundwork for first-in-human clinical trials.

Competitive Advantage

Pancreatic cancer is highly lethal, with five-year survival near 10% and most patients presenting with unresectable disease. About 85% of these tumors express tMUC1, defining a large, biomarker-driven segment of ~56,000 U.S. patients annually. Current therapies (FOLFIRINOX; nab-paclitaxel + gemcitabine) offer limited benefit, underscoring a major treatment gap. A tMUC1-targeted therapy enables efficient patient selection, overcomes resistance, and complements existing regimens. In a market projected to exceed $4.1B by 2030 (>8% CAGR), this approach meets a critical need while delivering a scalable competitive edge.

- Alignment with UNC Charlotte's Mission: Strengthens the university's patent portfolio, and contributions to innovation, commercialization, and job creation.
- Strengthening North Carolina's Biotechnology Ecosystem: Built with OncoTAb, Dualogics, and leading clinical partners, positioning the state as a leader in translational cancer research.
- Entrepreneurship and Commercialization Support: Driven by a dedicated STTR/SBIR funding, NCBC loan, angel investment, and a team experienced in entrepreneurship, pharma, commercialization, and regulatory strategy.

Commercialization Focus

- Further differentiation of the technology versus alternatives on market
- Potential Licensing Pathways
- FDA and Regulatory Milestones

Dr. Pinku Mukherjee, Professor

Stella Vnook, CEO Likarda Biotech

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UNIVERSITY OF NORTH CAROLINA CHARLOTTE

INDUSTRY: Biohealth

TOTAL GRANT AWARD: $1,120,542 | YEAR 1: $671,357 and YEAR 2: $449,185

TABLE 6.1: Action Plan for NCI Funded Projects

Action Plan for NCI Funded Projects

Purpose: Track and support projects to ensure success in achieving commercial milestones

Category	Activity	Defined	Deliverable	Timing	Lead	Report
Commercial Activities *(Project EIR)*	Source Project EIR	Assist in defining key activities for job description	Executed contract	Month 1	NC IDEA	PI
	Develop Roadmap*	Develop a commercialization or go-to-market strategy to clearly define and guide business activities	Go-to-market strategy	Month 3	Project EIR RIoT	NCI
	Execute	Complete activities as defined in scope of work job description and roadmap	Status update	Ongoing	Project EIR	PI
	Consult	Participate in regular meetings with Project EIRs, PIs and consultants to support on commercialization activities	Notes and assessment	Every other month	RIoT	NCI
Progress Toward Milestones	Check-in	Informal touchpoint with PIs and project teams to address challenges, trouble shoot, and/or suggest additional resources	Status update	Monthly or Quarterly	Directors	NCI
	Submit semiannual	Meet in-person to track progress and submit to NCI, to include any requests for revisions or modifications	Status update	Months 6 and 18	PI Directors	NCI
	Submit annual	Prepare formal report and seek approval by university and NCI	Milestones 2nd tranche	Annually	PI University	NCI
	Submit completion	Work with PI to submit project completion and evaluation	Report	End of project	PI	NCI
MBA Intern Program	Source	Work with PI and Project EIR to define key activities for intern	Scope of work	March/ April	SBTDC	Project EIR
	Execute	Complete key activities	Deliverables as defined	May-July	Intern	SBTDC
	Manage	Remain updated on progress and impact	Status update; Evaluation	May-July	SBTDC	NCI
Commercial Transition	Execute Roadmap*	*[placeholder for activities as defined in develop roadmap]*	As defined	ongoing	Project EIR	NCI
	Pitch Prep	Create/update/revise pitch deck to share with industry	Pitch deck	Month 6	Project EIR	PI
	Industry Connect	Make industry connections and facilitate introductions	Engagement	Ongoing	Project EIR Reg. EIR Directors	PI
	Validate	Conduct feasibility study/report, test proof of concept, continue customer discovery	Refined value prop	TBD	Project EIR Consultant	NCI
	De-risk	Identify regulatory pathways to de-risk and create risk mitigation plan	Risk mitigation plan	TBD	Project EIR Consultant University	PI NCI
	Protect	Submit necessary disclosures, patents, ownership agreements, licensing rights, etc.	IP strategy; licensing pathway	TBD	Project EIR Consultant University	PI NCI
	Develop Continuation Plan	Define action plan for necessary steps post grant needed to advance the technology/IP and identification of the resources/partners to execute	Exit strategy	TBD	RIoT	NCI
Post Award	Execute Continuation Plan	Execute action plan as defined	Exit strategy	TBD	TBD	NCI
	Build team	Identify entrepreneurial lead (unless one is already in place), go-to-market team or CEO, advisors and/or mentor network	Post award team	TBD	TBD	PI NCI

REQUIREMENT 2. Outcome data collected by NCInnovation, including the number of jobs created.

In our September 2024 volume of this report to the General Assembly, we provided *Figure 2.1: Tangible and Intangible Returns of a Well-Developed Innovation Ecosystem,* that exhibited how a well-developed innovation ecosystem delivers both tangible and intangible returns. Using this original value proposition coupled with a balanced score card approach to strategic and operating objectives NCI has developed a Strategic Plan. At its November 12, 2024, meeting the NCI Board voted to adopt the FY2025 Strategic Plan. See *Figure 2.2: Balanced Score Card*, *Figure 2.3: FY2025 Summary of Strategy, Tactics, and KPIs*, and *Figure 2.4: FY2025 Strategic Plan Dashboard*.

Between 2024 and 2025, NCI broadened its on-the-ground reach from four (4) to seven (7) hubs, matured its grants program to include 25 active projects, stood up a hands-on Entrepreneur-in-Residence (EIR) model, and built durable routes to market—industry partnerships, defense pathways, expert benches, and investor linkages—that show measurable throughput from applications > invites >> awards and onward to pilots, licensing, and startups, i.e. "jobs".

Building on the eight pilot projects launched in 2024, our first statewide RFP added 17 awards in May 2025 (for a total of 25 active projects at TRL 3–6). See *Figure 2.5: Map of Pilot and FY25 Spring Grant Awards*.

As discussed further below, NCI's regional innovation networks established or facilitated **more than 250** meetings, presentations, partnerships, company–campus matches, MOUs, pilots, consortia memberships (e.g., defense acquisition pathway partners; investor networks; sector alliances) and "just in time" support services that now serve as repeatable routes from innovation labs to commercial markets. See *Table 2.1: NCI Engagement Key Performance Indicators* for a list of engagement KPIs spanning all four regional innovation networks.

Overview

Applications > Invites >> Awards (the funnel)

- 2025 statewide cycle (approximate): Over 150 pre-applications > ~33 full applications reviewed >> 17 awards (≈22% of pre-apps invited; ≈52% of full applications awarded; ≈11% of pre-apps awarded).

- 2024 pilot: No pre-application phase; a small, invited set of full applications was reviewed, yielding 8 pilot awards. (Direct comparison to 2025 is not one-to-one due to process differences.)

Stakeholder Engagement (what NCI scaled and how)

- Hubs & networks. Expansion from 4→7 hubs with on-campus directors, which increased access and shortened time-to-support for faculty and founders in priority geographies (UNCW on the coast; FSU/UNCP for defense collaboration; ASU Hickory in the West).

- Industry–academic partnerships. NCI program support resulted in more than 130 meetings and presentations; 75 new partnerships or MOUs; and 48 instances in which hub Directors or regional personnel provided support services to accelerate UNC system faculty innovation commercialization.

- Entrepreneur-in-Residence (EIR) network. Established in 2024 and embedded in each region, with Project EIRs contracted for every 2025 award to accelerate commercialization milestones and investor readiness.

Growth & Scale (pipeline depth, viability, and know-how/capital networks)

- Pipeline volume & quality. Beyond the statewide technology plan, NCI commissioned university-specific commercialization deliverables—now shared with seven UNC institutions—to guide sourcing and readiness.

- Defense commercialization pathway. An acquisition feedback and ITAR/export-control pathway allows dual-use projects to obtain real end-user input and advance compliantly.

- IP/regulatory experts and investor networks. Teams are connected to statewide partners—DLA Piper, Cardinal IP, Kymanox—and later-stage investors (Good Growth Capital, CoFounders, Bull City Venture Partners, VentureSouth, Wilmington Angels) to de-risk market entry and attract follow-on funding.

Select Regional Outcomes & Impact from June 2024 – June 2025

East Region

- Sponsored activities that build pipeline. 11 university and community convenings funded across UNCW, ECU, FSU, UNCP, and ECSU—totaling $30,950—to surface inventions, recognize researchers, and move faculty toward commercialization (e.g., UNCW Innovate & Elevate, ECU Tech-to-Commercialization Summit, FSU Innovation Pathways & Partnerships).

- Deep footprint of convening & presence. 60+ presentations, panels, site visits, and recurring forums spanning entrepreneurship, industry, and defense (e.g., TechNet Fort Liberty, Camp Lejeune Innovation Campus, CED Venture Connect, investor panels). This visibility shortens the time from “first conversation” to “first collaboration.”

- Industry & defense connections that convert. 50+ targeted connections—ranging from DIU/SOCOM affiliates and America Makes to regional investors and sector groups—used to recruit EIRs, craft defense acquisition pathways, and stand-up pilots.

- “Just-in-time” support services delivered. 26 actions with ~$66,290 invested to de-risk faculty projects including: 8 TreMonti market reports; 7 IP filings (provisional/PCT/patent); 6 prototyping builds (incl. web apps, devices); 3 regulatory/CRO reviews. These supports are already accelerating timelines (e.g., a prototype advanced ~4 months faster).

- Early wins & institutional capacity. ECU and UNCW pilot grantees captured $60,000 in NC Biotech competition awards; ECSU is advancing its first-ever U.S. patent; multiple ECU startups are exiting the university with direct regional support.

- Replicable models. FSU’s Innovation Pathways & Partnerships matchmaking event produced nine collaborations and two NCI proposals within days—now scaling to a 5× larger fall event and informing a broader regional playbook.

West Region

- Commercialization pipeline advanced. 4 third-party innovation/tech assessments completed; one prototyping effort funded; UNCA pursued its first-ever patent (novel antibiotic molecules). 2 pilot-round projects were nominated for acceleration, signaling market readiness.

- Industry + workforce linkages formalized. 3 MOUs secured (NC Sweet Potato Commission with ASU Fermentation Sciences; Caldwell CC with App State Chemistry/Pharmacy Tech; Caldwell CC Culinary with ASU Fermentation Sciences), plus 2 proposed 2+2 articulation agreements and a proposed pilot site with the NC Veterinary Diagnostic Lab System.

- Ecosystem convening with a rural lens. 15+ recurring Northwest Prosperity Zone meetings, 2 Reverse Pitch Days (Cane Creek Cycles; Notle AI), WNC Research for Recovery & Resilience, Forest Biomass convenings, and the Vision Northwest NC Summit built a durable, place-based support system.

- Outdoor economy + advanced manufacturing focus. Partnerships with the Outdoor Business Alliance, NC Department of Commerce's Outdoor Economy Office, and Cane Creek Cycles link university R&D to regional supply chains and talent pathways.

- Capital & coaching pathways activated. Teams engaged with First Flight Venture Center, ASU entrepreneurial cohorts, and regional investors (High Country Impact Fund, Start-Up High Country, Levert, Optimist, Venture Asheville).

Piedmont Region

- Sponsored activities that build pipeline. 8 events, including 4 grant-writing Lunch & Learns across UNCG, NCA&T, NCSU, and NCCU—aimed squarely at improving proposal quality and win-rates.

- Broad convening footprint. 20+ presentations, panels, and convenings spanning ARPA-E/RTI, HBCU tech-transfer, SBIR/STTR workshops, AI/industry roundtables, and regional pitch forums—raising visibility and accelerating connections.

- Industry & capital engagements. 12+ including targeted engagements with Labcorp (potential licensee), Core Technologies, Soelect (→ NCA&T grant submission), GET Wind Initiative (→ ECSU grant submission), TS Designs (with NCSU), Access Point Capital (investment conversations), and others.

- Commercialization infrastructure. 2 TreMonti innovation assessments (NCA&T and WSSU), launch of NCA&T's first IP/Patent Committee (NCI participating), and early evidence of increased provisional filings.

- Funding pathways activated. 4 pathways with NC Biotech Center, local chamber foundations, VC firm visits to campus, and Chancellor Innovation Funds discussions to position faculty/startups for near-term capital.

- Regional network development. 10+ active roles with UNCG Tech Hub (Workforce & Economic Development), community college system, SBTDC, chambers, and regional EDCs—tightening the region's "front door" for innovators.

Charlotte Region

- Commercialization pipeline strengthened. 2 third-party innovation assessments completed; $70,000 in direct IP/commercialization support to UNCC (TradeSpace AI pilot + patent filings).
- Startup traction: Scenergy. (Pristine Power pilot) accepted into the Joules Accelerator, a globally competitive, industry-embedded program headquartered in Charlotte.
- Industry & federal linkages deepened. 10+ documented new ties and active projects with Atrium Health, Duke Energy, M&M Technologies, Bravo Team, MTEC (medical/defense consortium), Centralina EDC, and regional investors.
- Ecosystem momentum. 20+ touchpoints across convenings, site visits, and strategic meetings; UNCC opened the CO-LAB in Uptown, signaling commitment to industry-academia collaboration.
- Major federal opportunity in play. The NSF Engines: Grid Modernization concept advanced to a late-stage down-select (29 projects remaining), with a Charlotte-centered North Tryon Tech Hub (NTTH) vision in cybersecurity, AI, and grid modernization.

FIGURE 2.1: Tangible and Intangible Returns of a Well-Developed Innovation Ecosystem

FIGURE 2.2: Balanced Score Card

FIGURE 2.3: FY2025 Summary of Strategy, Tactics, and KPIs

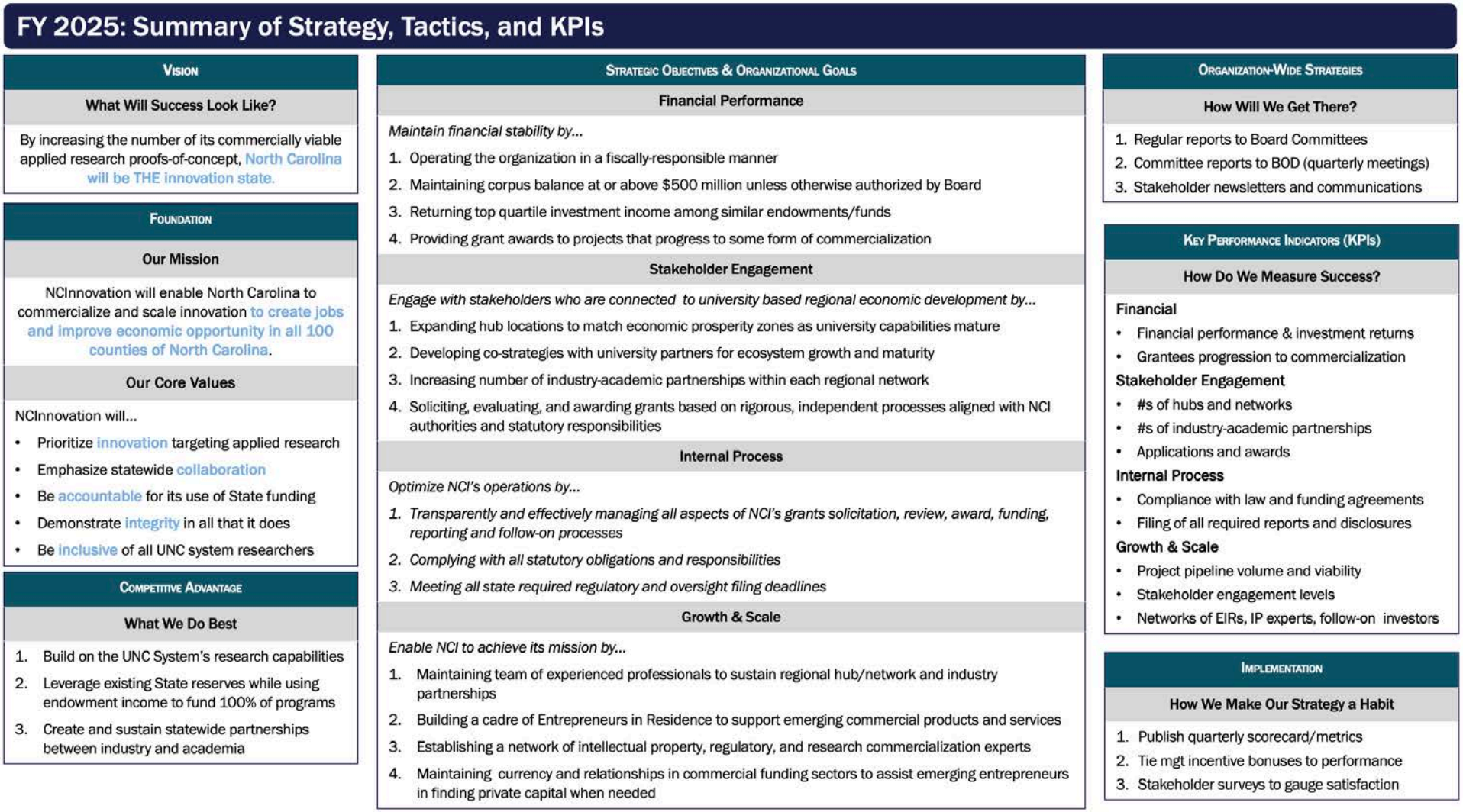

FIGURE 2.4: FY2025 Strategic Plan Dashboard

FY2025 Strategic Plan Dashboard

Updated: July 2025

Strategic Objective	Status	Update
Financial Performance		
Operate the organization in a fiscally-responsible manner	◉	On budget through 4QFY25 with exception of legal expenses (approved by BOD)
Maintain endowment balance at or above $500M unless otherwise authorized by Board	◉	Endowment balance of $521.7M (6/30/25), net of FY24 program expenses
Return top quartile Investment income among similar endowment/funds	◉	BOD selected Wells Fargo in Jan 2025; transition complete and earning ~4.5%
Provide grant awards to projects that progress to some form of commercialization	◉	Pilot grants had commercialization plans; tracking progression w/ no anomalies
Stakeholder Engagement		
Expand hub locations to match economic prosperity zones as university capabilities mature	◉	Established four initial hubs; since expanded to 7 locations + RTP
Developing co-strategies with university partners for ecosystem growth and maturity	◉	FY25 budget sponsored two programs per region; will continue expanding
Increase number of industry-academic partnerships within each regional network	◉	Partnership development activity is underway; will use FY25 as baseline
Solicit, evaluate, and award grants based on rigorous, independent processes aligned with NCI authorities and statutory responsibilities	◉	Conducted first statewide RFP and awarded 17 grants using the pilot process previously audited favorably by NC Office of the State Auditor
Internal Process		
Manage grants consistent with law and funding agreements	◉	8 pilot and 17 Spring '25 award agreements reflect language in NCGS § 143-728
Comply with all statutory obligations and responsibilities	◉	Currently compliant with all obligations under NCGS § 143-728
Meeting all State required regulatory and oversight filing deadlines	◉	Completed all requirements to-date; on track for scheduled filings and reports
Growth & Scale		
Maintain team of experienced professionals to sustain regional hub/network and industry partnerships	◉	Hub Directors in place and working regularly with industry partnersOper plan
Build cadre of Entrepreneurs in Residence (EIR) to support emerging commercial products and services	◉	All grant recipients are paired with an EIR via partnership with NC IDEA
Establish a network intellectual property, regulatory, and research commercialization experts	◉	Inventoried experts as part of RTI project; working with national orgs for others
Maintain currency and relationships in commercial funding sectors to assist emerging entrepreneurs in finding private capital when needed	◉	Regional Directors and Regional EIRs continue to identify opportunities to leverage regional providers, consultants, service providers, etc.

◉ Complete ◉ In Process/On Track ▶ Not Started ⊠ At Risk

FIGURE 2.5: Map of Pilot and FY25 Spring Grant Awards

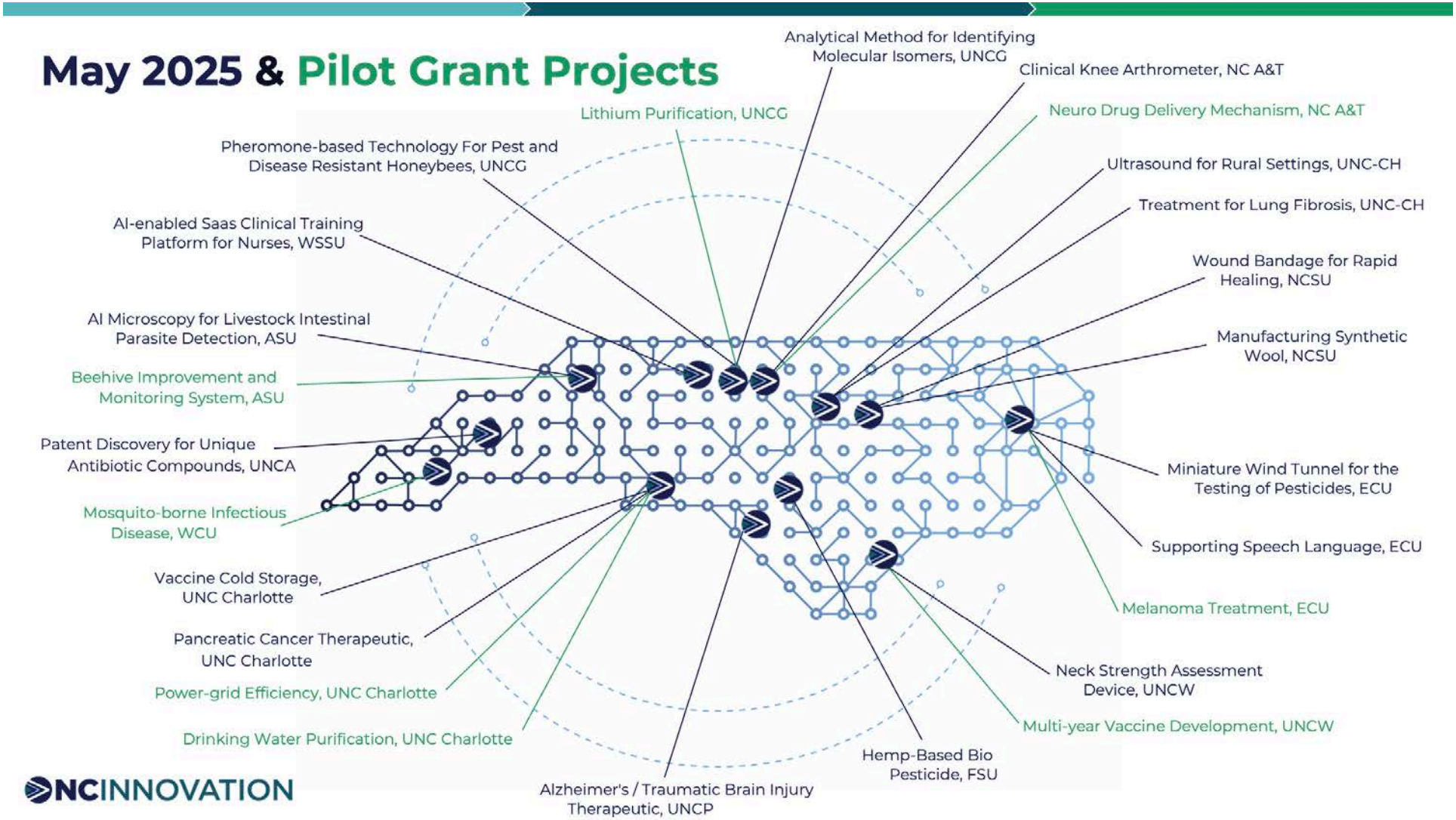

TABLE 2.1: NCI Engagement Key Performance Indicators

KPI	Results Across Regions	Notes/Examples
NCI Sponsored Activities	**34+**	UNCP Global Entrepreneurship Week; ECU Research & Scholarship Awards; ECU Tech → Commercialization Summit; FSU Innovation Pathways & Partnerships; UNCW Innovate & Elevate; Coastal Entrepreneur Awards; UNCW research/innovation events - totaling $30,950. Recurring Prosperity Zone meetings; WNC R3; Forest Biomass; MAHEC Health Policy; NC IDEA Summit; Vision Northwest NC; GreenForCES Workshop; High Country Economic Kickoff. NCAT economic development events, Greensboro Chamber programs, four Lunch & Learns on grant writing (UNCG, NCA&T, NCSU, NCCU).
NCI Presentations & Convenings	**87+**	TechNet Fort Liberty (presenter), Camp Lejeune Innovation Campus, CED Venture Connect, SBTDC Investor-Ready workshops, ECU Research 2 Commercialization, investor panels, recurring Power Breakfasts/Luncheons. Co-presentations, campus talks, ARPA-E/RTI, HBCU tech-transfer, SBIR/STTR workshop, AI roundtables, regional pitch and showcase events. CICOM Summit; UNCC Inventor Awards; Division of Research reception; Seed the South (sponsor); NC Research Campus faculty meeting; Translational Research Workshop; Charlotte Startup Ecosystem Report unveiling.
Industry & Defense Partners Engaged	**50+**	DIU/SOCOM affiliates, America Makes, Navy Tech Bridge, Cape Fear Manufacturing Partnership, Vets to Drones, Fraunhofer, regional EDCs, venture groups. Used to source EIRs, pilots, and dual-use pathways.
Industry & Capital Engagements	**12+**	Labcorp (licensing), Core Technologies (Reverse Pitch), Soelect (→ NCA&T grant), GET Wind Initiative (→ ECSU grant), TS Designs (with NCSU), Access Point Capital (investment).
Just-in-Time Support Services	**26**	Examples: Eight TreMonti market reports; seven IP filings (provisional/PCT/patent); six prototyping builds (incl. web apps, devices); three regulatory/CRO reviews; faculty entrepreneurship materials/training - ~$66,300.
Commercialization & Tech Assessments	**8**	ASU (Biochar; Franchisable Daycare Tech); UNCA (Novel Antibiotics); WCU (Lymphedema device). TreMonti reports delivered for NCA&T and WSSU. Two TreMonti innovation assessment reports completed at UNCC.
Startup Traction	**1**	Scenergy (commercializing Pristine Power pilot) accepted into Charlotte-based Joules Accelerator (highly competitive).
Institutional IP Capacity & Governance	**6**	ECSU is being guided toward its first U.S. patent; UNCP Alzheimer's IP filings supported; UNCW robotics IP advanced. NCA&T's first IP/Patent Committee formed; NCI engaged; provisional filings increasing. Targeted funds ($60,000) to file patents at newly designated R1 UNCC. UNCA's first-ever biotech patent pursuit.
Competition Wins/Validation	**$60,000**	ECU's Claradele Pharma (NC Biotech Venture Challenge, $40,000); UNCW's Ying Wang (Southeastern Pre-Venture Challenge, $20,000).
Matchmaking That Scales	**11**	FSU Innovation Pathways & Partnerships: 11 faculty + nine companies; nine collaborations and two NCI proposals within days; fall event planned at ~5× size.
Capital Channels Activated	**20+**	NC Biotech; Eshelman Innovation; DIU incubators/challenges; SBIR/STTR + NC DoC match; later-stage investor network (e.g., Good Growth Capital, Venture South, CoFounders).
Ecosystem Leadership Roles Engaged	**10+**	AgTech Advisory Council (Board), EDA WNC Industrialized Construction (advisor), multiple Councils of Government, Outdoor Economy Office, regional EDCs/investors.

TABLE 2.1: (Continued)

Industry Reverse Pitch Days Hosted	**2**	Cane Creek Cycles (Dec '24); Notle AI (Dec '24).
Proposed 2+2 Articulation Agreements	**2**	With Caldwell CC Pharmacy Tech and Culinary programs (ASU partners).
Anchor Industry Engagements Executed	**13+**	Examples: Atrium Health surgeon collaboration (laser surgical tool); M&M Technologies (optics); Bravo Team prototyping; Duke Energy MicroGrid site visit; Centralina EDC; Eshelman Innovation; former Duke Energy executive match for Scenergy. NC Sweetpotato Commission ↔ ASU Fermentation Sciences; Caldwell CC ↔ ASU Chemistry/Pharmacy Tech; Caldwell CC Culinary ↔ ASU Fermentation Sciences.
Proposed Pilot Site Established	**1**	NC Veterinary Diagnostic Laboratory System identified for a funded project.
Entrepreneurial Education Engagements	**4**	WCU/ASU teams in First Flight and ASU cohorts (Tanaka, Taubman, Alfayed, Caravalis/Allen).
Acceleration Nominations	**2**	Both West pilot-round funded projects nominated for acceleration.
Education & Coaching Leveraged	**3**	Utilization of RIoT, First Flight, and additional NCI education supports by project teams.
Funding Channels Activated	**4**	NC Biotech Center grants, local chamber foundation funds, on-campus VC visits (two firms), Chancellor Innovation Funds discussions.
Regional Network Development	**10+**	UNCG Tech Hub committee role; partnerships with community colleges, chambers, SBTDC, PT RC, and EDCs.
Tools Piloted to Speed IP & Market Scans	**$10,000**	NCI support to pilot the TradeSpace AI assessment tool at UNCC resulted in enterprise license for access across UNC regional universities.

REQUIREMENT 3. Cumulative regional innovation hub network expenditure and funding award data by program and by county.

This section builds on the information and financial data requested and provided under REQUIREMENT 1 and REQUIREMENT 6. A cumulative look at the regional innovation hub network expenditures can be found in *Table 3.1: Regional Hub Cumulative Program Expenditures by County*.

The Pilot Grant funding award data by program and by county can be found in *Table 3.2: Pilot Grants Cumulative Funding by Year* as well as in *Table 3.3: Pilot Grants Cumulative Funding by Region and County*. The FY25 Spring Grant funding award data by program and by county can be found in *Table 3.4: FY25 Spring Grants Cumulative Funding by Year* as well as in *Table 3.5: FY25 Spring Grants Cumulative Funding by Region and County*.

Current NCI Regional Innovation Networks consist of:

East Regional Innovation Network
Hub Universities: East Carolina University, Fayetteville State University, and UNC Wilmington
Regional Universities: Elizabeth City State University and UNC Pembroke

West Regional Innovation Network
Hub Universities: Western Carolina University and Appalachian State University (Hickory Campus)
Regional University: UNC Asheville

Piedmont Regional Innovation Network
Hub University: North Carolina A&T State University
Regional Universities: UNC Greensboro, Winston-Salem State University, North Carolina Central University, North Carolina State University, and UNC-Chapel Hill

Charlotte Regional Innovation Network
Hub University: UNC Charlotte

Figure 3.1: Map of Current NCI Regional Innovation Networks & Location of Hub Universities shows the locations of the four regions and the seven hub universities. The Triangle area on the map (see *Figure 3.1*) includes North Carolina State University and UNC-Chapel Hill and is part of the Piedmont Regional Innovation Network in all finance tables and grant narratives throughout this report.

FIGURE 3.1: Map of Current NCI Regional Innovation Networks & Location of Hub Universities

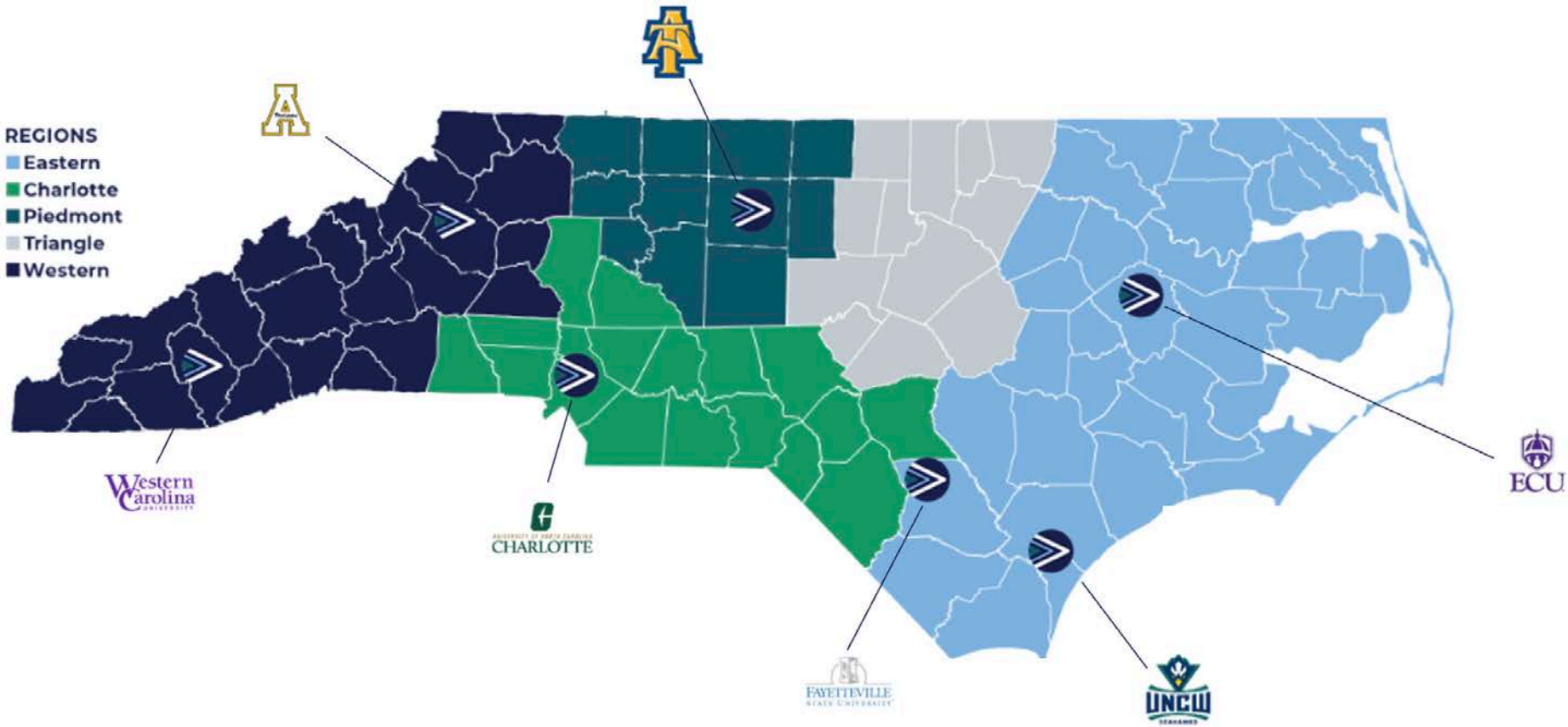

TABLE 3.1: Regional Hub Cumulative Program Expenditures by County

Preliminary draft and unaudited

Regional Hub Program Expenditures by County (Cumulative)

Cumulative Expenditures	Region & County					
	Charlotte	East				
	Mecklenburg County	Pitt County	Robeson County	Cumberland County	Pasquotank County	New Hanover County
Salaries & Benefits	$235,922	$140,761	$78,028	$128,991	$64,535	$155,943
Hub Expenditures	$215,210	$116,139	$41,060	$35,453	$22,013	$71,489
County Total	$451,132	$256,900	$119,088	$164,444	$86,548	$227,432
Region Total	**$451,132**	**$854,412**				

West			Piedmont					Total
Jackson County	Buncombe County	Watauga County	Guilford County	Forsyth County	Orange County	Durham County	Wake County	
$142,916	$84,620	$108,785	$175,936	$70,190	$44,715	$70,269	$44,794	$1,546,405
$65,324	$31,866	$54,177	$95,845	$24,256	$21,647	$30,567	$22,326	$847,372
$208,241	$116,486	$162,962	$271,780	$94,446	$66,362	$100,836	$67,121	$2,393,777
$487,688			**$600,545**					**$2,393,777**

TABLE 3.2: Pilot Grants Cumulative Funding by Year

NCINNOVATION

Preliminary draft and unaudited

Pilot Grants Cumulative Funding by Year

Principal Investigator	Area of Research	Region	University	Year 1 (June 2024)	Year 2 (June 2025)	Cumulative Total
Jordan Poler	Drinking Water Purification	Charlotte	UNC Charlotte	$400,971	N/A	$400,971
Sukumar Kamalasadan	Power-grid Efficiency	Charlotte	UNC Charlotte	$354,607	N/A	$354,607
Rukiyah Van Dross-Anderson	Oncology – Melanoma	East	ECU	$442,000	$532,000	$974,000
Ying Wang	Vaccine Development	East	UNCW	$550,049	$532,647	$1,082,696
Brian Byrd	Mosquito-borne Infectious Disease	West	WCU	$587,412	$412,551	$999,963
Rahman Tashakkori	Beehive Improvement and Monitoring System	West	App State	N/A	$641,951	$641,951
Kristen Dellinger	Drug delivery mechanism	Piedmont	NC A&T	$184,512	$184,512	$369,024
Hemali Rathnayake	Lithium Purification	Piedmont	UNCG	$404,999	N/A	$404,999
			Total	**$2,924,550**	**$2,303,661**	**$5,228,211**

TABLE 3.3: Pilot Grants Cumulative Funding by Region and County

Preliminary draft and unaudited

Pilot Grants Cumulative Funding by Region and County

			Region & County						Total
			Charlotte	East		West		Piedmont	
Principal Investigator	Area of Research	University	Mecklenburg County	Pitt County	New Hanover County	Jackson County	Watauga County	Guilford County	
Jordan Poler	Drinking Water Purification	UNCC	$400,971						$400,971
Sukumar Kamalasadan	Power-grid Efficiency	UNCC	$354,607						$354,607
Rukiyah Van Dross-Anderson	Oncology – Melanoma	ECU		$974,000					$974,000
Ying Wang	Vaccine Development	UNCW			$1,082,696				$1,082,696
Brian Byrd	Mosquito-borne Infectious Disease	WCU				$999,963			$999,963
Rahman Tashakkori	Beehive Improvement and Monitoring System	ASU					$641,951		$641,951
Kristen Dellinger	Drug delivery mechanism	NCA&T						$369,024	$369,024
Hemali Rathnayake	Lithium Purification	UNCG						$404,999	$404,999
		County Total	**$755,578**	**$974,000**	**$1,082,696**	**$999,963**	**$641,951**	**$774,023**	**$5,228,211**
		Region Total	**$755,578**	**$2,056,696**		**$1,641,914**		**$774,023**	**$5,228,211**

TABLE 3.4: FY25 Spring Grants Cumulative Funding by Year

NCINNOVATION

Preliminary draft and unaudited

Statewide RFP Grants Cumulative Funding by Year

Principal Investigator	Area of Research	Region	University	Year 1 June 2025	Year 2 June 2026	Cumulative Total
Susan Trammell*	Vaccine cold storage	Charlotte	UNCC	$451,050	$359,455	$810,505
Pinku Mukherjee	Pancreatic cancer therapeutic	Charlotte	UNCC	$671,357	$449,185	$1,120,542
Shirley Lee Chao*	Hemp-based bio pesticide for use in commercial poultry houses	East	FSU	$627,523	$461,463	$1,088,986
Stephanie Richards	miniature wind tunnel for the testing of pesticides; will lead to creation of a CRO in eastern NC	East	ECU	$317,033	$180,849	$497,882
Ben A. Bahr, Ph.D.*	Alzheimer's / Traumatic Brain Injury therapeutic	East	UNCC	$442,571	$671,187	$1,113,758
Patrick Briley*	Stuttering platform for supporting speech language pathologists	East	ECU	$280,819	$154,836	$435,655
Lindsey H. Schroeder*	Neck Strength Assessment Device with broad military and sports application	East	UNCW	$325,021	$525,623	$850,644
Jeffrey S. A. Stringer	Ultrasound for rural settings	Piedmont	UNCCH	$500,000	N/A	$500,000
Kaira Wagoner, PhD	Pheromone-based technology for pest and disease resistant honeybees	Piedmont	UNCG	$306,059	$247,508	$553,567
Ronit Freeman	Treatment for lung fibrosis	Piedmont	UNCCH	$514,877	$453,097	$967,974
Ryan Schmaltz	AI-enabled Saas clinical training platform for nurses	Piedmont	WSSU	$655,400	$590,800	$1,246,200
Amay J Bandodkar	Wound bandage for rapid healing	Piedmont	NCSU	$358,448	$341,475	$699,923
Ericka Ford	New process for manufacturing synthetic wool more sustainably and with less health risk	Piedmont	NCSU	$221,390	$224,433	$445,823
Liam Michael Duffy	Analytical method for identifying molecular isomers	Piedmont	UNCG	$253,000	N/A	$253,000
Randy Schmitz PhD ATC*	Clinical knee arthrometer to measure knee laxity	Piedmont	NCA&T	$370,012	$208,892	$578,904
Zachary E. Russell	AI Microscopy for Livestock Intestinal Parasite Detection	West	ASU	$1,195,106	$1,114,759	$2,309,865
Amanda L. Wolfe*	Patent Discovery for Unique Antibiotic Compounds	West	UNCA	$102,600	N/A	$102,600
			Total	**$7,592,266**	**$5,983,562**	**$13,575,828**

TABLE 3.5: FY25 Spring Grants Cumulative Funding by Region and County

NCINNOVATION

Preliminary draft and unaudited

Statewide RFP Grants Cumulative Funding by Region and County

			Region & County									
			Charlotte	East					West			
Principal Investigator	Area of Research	University	Mecklenburg County	Pitt County	Robeson County	Cumberland County	Pasquotank County	New Hanover County	Jackson County	Buncombe County	Watauga County
Susan Trammell*	Vaccine cold storage	UNCC	$810,505								
Pinku Mukherjee	Pancreatic cancer therapeutic	UNCC	$1,120,542								
Shirley Lee Chao*	Hemp-based bio pesticide for use in commercial poultry houses	FSU				$1,088,986					
Stephanie Richards	miniature wind tunnel for the testing of pesticides; will lead to creation of a CRO in eastern NC	ECU		$497,882							
Ben A. Bahr, Ph.D.*	Alzheimer's / Traumatic Brain Injury therapeutic	UNCP			$1,113,758						
Patrick Briley*	Stuttering platform for supporting speech language pathologists	ECU		$435,655							
Lindsey H. Schroeder*	Neck Strength Assessment Device with broad military and sports application	UNCW						$850,644			
Jeffrey S. A. Stringer	Ultrasound for rural settings	UNCCH									
Kaira Wagoner, PhD	Pheromone-based technology for pest and disease resistant honeybees	UNCG									
Ronit Freeman	Treatment for lung fibrosis	UNCCH									
Ryan Schmaltz	AI-enabled Saas clinical training platform for nurses	WSSU									
Amay J Bandodkar	Wound bandage for rapid healing	NCSU									
Ericka Ford	New process for manufacturing synthetic wool more sustainably and with less health risk	NCSU									
Liam Michael Duffy	Analytical method for identifying molecular isomers	UNCG									
Randy Schmitz PhD ATC*	Clinical knee arthrometer to measure knee laxity	NC A&T									
Zachary E. Russell	AI Microscopy for Livestock Intestinal Parasite Detection	ASU									
Amanda L. Wolfe*	Patent Discovery for Unique Antibiotic Compounds	UNCA									
County Total			$1,931,047	$933,537	$1,113,758	$1,088,986	$0	$850,644	$0	$102,600	$2,309,865
Region Total			$1,931,047			$3,986,925				$2,412,465	

KEY: (*) means the PI reapplied after receiving feedback in the pilot grant cycle.

Region & County								
Piedmont								
Guilford County	Forsyth County	Orange County	Durham County	Wake County	Total
					$810,505
					$1,120,542
					$1,088,986
					$497,882
					$1,113,758
					$435,655
					$850,644
		$500,000			$500,000
$553,567					$553,567
		$967,974			$967,974
	$1,246,200				$1,246,200
				$699,923	$699,923
				$445,823	$445,823
$253,000					$253,000
$578,904					$578,904
					$2,309,865
					$102,600
$1,385,471	$1,246,200	$1,467,974	$0	$1,145,746	$13,575,828
		$5,245,391			$13,575,828

REQUIREMENT 4. An unaudited report, itemized by category, of overhead and administrative costs for the previous fiscal year.

NCI is in full compliance with statutory requirements that govern expenditures and usage of State funds. For reference those statutory requirements in G.S. 143-728(d) are listed below. The unaudited financial data for the previous fiscal year (FY2025) requested in REQUIREMENT 4 spans two separate pages. See *Table 4.1: FY2025 Unaudited Financial Statements*.

Statutory Requirements

§143-728(d). Requirements of NCInnovation

(d) Requirements. – In order to receive the endowment and retain State funds, all of the following requirements must be met:

...

(1) NCInnovation shall adhere to the following governance provisions related to its governing board:

...

e. The amount of State funds that may be used for the annual salary of any one officer or employee of NCInnovation shall not exceed the greater of (i) one hundred forty thousand dollars ($140,000) or (ii) the amount most recently set by the General Assembly in a Current Operations Appropriations Act.

...

(5) NCInnovation may draw from, distribute, and otherwise expend investment income, including, without limitation, to make funding awards and establish or support a network of regional innovation hubs, in accordance with this Article, and such activities are subject to the reporting requirements of this Article.

...

(9) NCInnovation shall maintain separate accounting records for and separate accounts for State funds and excluded amounts and shall not commingle State funds and excluded amounts. NCInnovation shall maintain records and accounts according to generally accepted accounting principles.

...

(11) NCInnovation shall limit the use of State funds for the severance pay of the chief executive officer and other officers of the nonprofit corporation to no more than the salary limitation contained in subdivision (1) of this subsection.

...

(12) NCInnovation complies with the following:

a. State funds shall not be used to hire a lobbyist.
b. No State funds may be used for overhead and administrative costs. It is the intent of the General Assembly (i) to make a determination of the appropriate maximum amount of investment income that may be used for overhead and administrative costs based on observed costs occurring within the first three years of receipt of the endowment, (ii) to allow for that maximum amount to be used for those purposes in subsequent years, and (iii), at that time, to require NCInnovation to prioritize the use of excluded amounts for overhead and administrative costs to the extent practicable.
c. Only excluded amounts may be used for any of the following: (i) alcohol, (ii) first-class airfare, (iii) charter flights, (iv) holiday parties or similar social gatherings, and (v) any meeting, whether a formal public meeting or an informal retreat, located outside of the State.

...

(f) Use of Funds. - NCInnovation shall comply with the following:

(1) Endowment. - The endowment may be used solely to produce investment income by an independent investment manager, as provided in this Article.

(2) Investment income. - Investment income may be used for the following:

a. Establishing and supporting a network of regional innovation hubs.
b. Awarding grants, funds, and other resources to advance duties owed by NCInnovation under this Article.
c. Any other purpose expressly and specifically allowed for investment income in this Article.

(3) State funds. - State funds may not be used for lobbying purposes.

(4) Excluded amounts. - Excluded amounts may not be invested with the endowment.

TABLE 4.1: FY2025 Unaudited Financial Statements

NCINNOVATION

Statement of Financial Position

As of June 30, 2025 and 2024

Unaudited for Interim Reporting Purposes Only - Preliminary Draft

	June 30 2025	June 30 2024
ASSETS		
Current Assets		
Cash & Cash Equivalents		
Checking Accounts	$ 221,016	$ 234,111
Cash and Cash Equivalents	$ 221,016	$ 234,111
Private Investment Account	$ 2,529,168	$ 2,951,486
Current Portion of Pledges Receivable, net	5,316,667	300,000
Prepaid Expenses	91,355	59,180
Total Current Assets	$ 8,158,206	$ 3,544,778
Other Assets		
Investments - State Funds (Endowment)	$ 521,783,336	$ 255,706,285
Property and Equipment, net	50,358	30,586
Long-Term Portion of Pledges Receivable, net	4,714,961	13,657,264
Construction in Progress	26,763	-
Security Deposits	14,666	-
Total Other Assets	$ 526,590,084	$ 269,394,136
TOTAL ASSETS	$ 534,748,290	$ 272,938,913
LIABILITIES AND EQUITY		
Liabilities		
Current Liabilities		
Grants Payable	$ 9,595,467	$ 2,924,550
Accounts Payable	481,834	113,396
Other Current Liabilities	958,011	170,190
Total Current Liabilities	$ 11,035,312	$ 3,208,135
Total Liabilities	$ 11,035,312	$ 3,208,135
Net Assets		
Without Donor Restrictions	$ 1,493,481	$ 2,991,778
With Donor Restrictions - Private Funds	10,031,627	13,957,264
With Donor Restrictions - State Endowment	512,187,869	252,781,735
Total Net Assets	$ 523,712,978	$ 269,730,778
TOTAL LIABILITIES AND NET ASSETS	$ 534,748,290	$ 272,938,913

TABLE 4.1: (Continued)

NCINNOVATION

Statement of Financial Activities

Budget to Actual

For the Period Ended June 30, 2025

Unaudited for Interim Reporting Purposes Only - Preliminary Draft

	Budget	Actual	Variance ($)
Public & Private Revenue			
State Endowment Revenue	$ 250,000,000	$ 250,000,000	$ -
Private Pledge Contributions	-	-	-
Total Public & Private Revenue	$ 250,000,000	$ 250,000,000	$ -
Investment Income			
Interest - Private Investment	$ 144,815	$ 138,106	$ (6,709)
Interest - State Investment	23,588,496	21,981,381	(1,607,115)
Total Investment Income	$ 23,733,311	$ 22,119,487	$ (1,613,824)
Other Income	-	671,030	671,030
Total Revenue & Income	$ 273,733,311	$ 272,790,517	$ (942,794)
Operational Expenses			
Program Expenses			
Pilot Grants	$ 2,003,201	$ 2,303,661	$ 300,460
Statewide RFP Grants	10,000,000	7,592,266	(2,407,734)
Salaries & Benefits	1,605,986	1,546,405	(59,581)
Grant Management & Operations	73,333	55,062	(18,271)
Contract Research Services	200,000	224,149	24,149
Regional Hub Expenses			
Core NCI	362,500	202,218	(160,282)
Pipeline Development	1,022,000	203,039	(818,961)
Commercial Transition	-	54,000	54,000
Operational Expenses	133,600	108,904	(24,696)
Total Program Expenses	$ 15,400,621	$ 12,289,704	$ (3,110,917)
Salaries & Benefits			
Total Salaries & Benefits	$ 5,187,885	$ 5,170,539	$ (17,346)
Allocation to Program Expense	(1,605,986)	(1,546,405)	59,581
Total Salaries & Benefits, Administrative	$ 3,581,899	$ 3,624,134	$ 42,235
General & Administrative Expenses			
Accounting Fees	$ 178,000	$ 176,053	$ (1,947)
Investment Management Fees	381,900	82,243	(299,657)
Investment Consulting Fees	41,314	72,857	31,543
Research & Consulting Fees	30,000	-	(30,000)
Legal Fees	150,000	1,366,132	1,216,132
Public Relations Expenses	258,000	277,651	19,651
Lobbying Expenses	212,500	420,518	208,018
Bank Service Fees	9,600	1,945	(7,655)
Business Registration Fees	2,000	331	(1,669)
Computer Expenses	113,200	99,315	(13,885)
Insurance	25,000	3,538	(21,462)
Postage, Mailing Service	1,800	1,008	(792)
Printing and Copying	12,000	8,420	(3,580)
Professional Development	15,000	28,586	13,586
Regional Sponsorship	20,000	16,500	(3,500)
Dues & Membership	-	7,971	7,971
Office Expense	24,000	13,829	(10,171)
Depreciation Expense	-	17,432	17,432
Staff Recruiting Fees	5,000	18,790	13,790
Rent & Utilities	222,122	211,948	(10,174)
Supplies	3,501	9,439	5,938
Telephone, Telecommunications	6,000	4,878	(1,122)
Travel, Conferences & Meetings	94,900	54,777	(40,123)
Total General & Administrative Expenses	$ 1,805,837	$ 2,894,161	$ 1,088,324
Other Expenses			
Moving Expenses	$ -	$ 318	$ 318
Total Other Expenses	$ -	$ 318	$ 318
Total Expenses	$ 20,788,357	$ 18,808,317	$ (2,039,621)
Change in Net Assets	$ 252,944,954	$ 253,982,200	$ 1,037,245
Net Beginning of the Period	$ 269,730,778	$ 269,730,778	$ -
Net Assets End of the Period	$ 522,675,732	$ 523,712,978	$ 1,037,245

REQUIREMENT 5. Current fiscal year budget, planned activities, and goals for the current fiscal year.

The NCI Board approved the FY2026 Budget at its meeting on August 13, 2025; see both pages of *Table 5.1: FY2026 Budget* for details. At that same meeting, the NCI Board approved the timeline for the next round of state-wide grants – the **FY26 Fall Grant Cycle** – as well as $925,000 in funding for the **Pipeline Development** program.

Overview

NCI delivers outcomes through a clear, three-pillar framework that moves university inventions from **discovery > diligence > deployment**. The pillars are designed to work as a pipeline: Pipeline Development (pre-award, building deal-flow and readiness), Core NCI (award execution and hands-on commercialization), and Commercial Transition (post-award services that carry projects into the market). Together, they standardize how we support campuses, tighten industry linkages, and create a repeatable path from research to jobs. See *Table 5.2: Pilot Projects – Year Two Funding Activities* to read about next steps for our Pilot Grant recipients.

Pillar 1 — Pipeline Development (Readiness & Deal-Flow Before the Grant)

Purpose: Build a steady flow of viable, market-pulled projects and raise faculty readiness so more proposals clear due-diligence quickly.

What it includes:

- NCI Hub Directors & Senior Regional Directors ("boots on the ground") who coordinate on campus and across ecosystems.
- Faculty training & workshops that demystify commercialization (summer workshop series; lunch-and-learns; cohort programs at partner sites).
- Pipeline funding to push promising university ideas (>TRL 3) toward NCI grant readiness.
- Support services that de-risk early: third-party technology assessments, market research, and IP discovery/protection.
- Capacity building investments aligned to regional strengths (e.g., innovation hubs, institutes) that grow campus infrastructure in key clusters.
- Regional engagement with chambers, EDCs, and strategic partners to make industry needs visible to faculty.
- Industry engagement mechanisms (e.g., reverse pitches) that translate real corporate problems into research and startup opportunities.

This pillar ensures universities have a clear "front door," faculty have tools to evaluate commercial fit, and early wins feed the statewide RFP with stronger proposals.

Pillar 2 — Core NCI (Grant Execution & Hands-On Commercialization)

Purpose: Execute the grant program with on-the-ground leadership and expert coaching so teams hit milestones on time and with market discipline.

What it includes:

- NCI Hub Directors & Senior Regional Directors ("boots on the ground") who coordinate on campus and across ecosystems.
- Grant funding via the pilot and statewide RFP cycles to resource TRL 3–6 commercialization work.
- Research & strategy (asset mapping, technology domain strategy, and statewide analyses) that align awards with comparative advantages.
- Entrepreneurs-in-Residence (EIRs) - both Regional EIRs (via statewide partners) and Project EIRs (embedded with each award) - to drive customer discovery, product strategy, and capital readiness.

- MBA fellows who produce commercialization roadmaps, market entry plans, and operational playbooks.
- Industry connect activities (showcases, targeted convenings) that pair funded teams with customers and strategic partners.

This pillar is the engine room: staff, grants, analysis, and expert operators working side-by-side with faculty to translate funded research into pilots, licenses, or venture-backable companies.

Pillar 3 — Commercial Transition (Post-Award to Market)
Purpose: Carry successful awardees through the "last mile" so promising technologies don't stall after the grant ends.

What it includes:
- Post-grant C-suite support to place interim leadership (CEO/CFO/CTO) where needed.
- Investor connections (e.g., investor days) that match projects with angels, seed funds, and strategic capital.
- Shared services to handle legal/compliance, finance, HR/talent, IT, and go-to-market planning - letting technical teams focus on customers and product.
- Mentorship to guide production of commercialization roadmaps, market entry plans, and operational playbooks.
- Ongoing industry connect (mentors, showcases) to convert demonstrations into purchase orders and partnership agreements.

This pillar prevents "valley-of-death" drop-off by surrounding awardees with the people, processes, and capital pathways required to launch and scale in North Carolina.

How the Pillars Work Together:
- Continuity: Each pillar hands projects to the next—training and early diligence → funded execution with EIRs → post-grant launch services—so momentum is not lost at phase boundaries.
- Regionalization: Hubs localize the model to each region's sectors (energy, defense, blue economy, outdoor/advanced manufacturing), while shared statewide tools (EIRs, investor networks, IP partners) ensure consistent quality.
- Measurability: Because activities map cleanly to pillars, we can report KPIs by stage (e.g., workshops and assessments in Pipeline; awards and milestone attainment in Core NCI; investor meetings, MOUs, and market launches in Commercial Transition).

Pipeline Activities in 2025

Regional Network Expansion
NCI built out its regional innovation network and ecosystems to strengthen collaboration and pipeline development with expansion centered around the NC Commerce Economic Development Zones.

Highlights of the network expansion strategy include:
- Launched three additional hubs across the east and west that align with economic development zones. Leverage established NC Commerce/EDPNC Economic Zones in order to optimize existing networks and partnerships, increase impact and accelerate process without duplicating efforts. Increase regional footprints and accessibility to stakeholders, as well as visibility and engagement level in the local ecosystems. Allow greater focus on each university and reduce travel time and expense.

- Populated three new hubs with full time employees to address immediate work on the ground and jobs to be done. Focus on coastal programs (UNC Wilmington). Increase military innovation collaboration (Fayetteville State & UNC Pembroke). Catalyze industry/business momentum in west backed by General Assembly support (App State Hickory Campus). Foster collaboration from Triangle-based universities with NC Central and other state universities.

NCI continues to work to increase defense innovation sponsored research by increasing collaboration between academia, the Department of Defense (DOD), and private defense innovation firms.

- Regional, defense innovation sponsored research allows research and development (R&D) to occur near the primary base of operations, with local researchers and DOD end users who are vested in the success of the project.
- NCI is working with existing industry partners and pairing their needs with regional university faculty, thereby reducing the export of R&D funding to universities outside of North Carolina.
- NCI is mapping and interviewing key stakeholders currently in the defense innovation space in order to identify gaps inhibiting the expansion of the academia to industry pipeline.
- NCI also provides non-financial support to strategic partnerships that will grow the defense innovation pipeline, aligning strategies with key partners such as the UNC System Office, JSOC, XVIII Airborne, National Security Innovation Network (NSIN), and NC Commerce Office of Science, Technology, and Innovation (OSTI).

Our goal is to grow the pipeline of defense innovation Intellectual Property (IP) development through new partnership opportunities, identification of targeted seed funds for IP development, and strategic submission of university responses to DOD statements of need.

Professional Development Opportunities for Faculty

NCI has partnered with First Flight Venture Center (FFVC) and Appalachian State University to provide professional development opportunities to faculty to further develop their ideas and strengthen their applications for funding. Training programs are based on a cohort model in which faculty participate in a ten-week intensive program with their peers from across the state. Additionally, faculty receive individualized coaching and mentorship from program facilitators.

Support Services

NCI provides opportunities for faculty researchers and university partners to leverage resources and access to support services that help develop ideas and research. Examples include partnering with vendors to conduct technology assessment and market readiness reports to analyze technologies and areas of opportunity.

Pipeline Development Program

What it is: A statewide, campus-embedded program that funds and supports very early-stage (pre-TRL 3) university projects, so they reach TRL 3+ and are ready for NCInnovation's semiannual RFP—or competitive external funding. It couples short, milestone-driven micro-grants with a common innovation infrastructure (Tradespace) that standardizes disclosure, market diligence, and IP tracking across campuses.

Why it matters (the gap it closes): Many promising faculty ideas stall before TRL 3 due to a lack of early funding, market checks, and process tools. This initiative targets that missing rung on the ladder—especially at regional UNC institutions—so ideas don't die in the lab simply because they are "too early." It also advances NCI's mission to drive inclusive, use-based innovation by bringing underrepresented campuses into the commercialization flow.

How it works (in brief):

- Campus-led selection with NCI alignment: Internal competitions or nominations identify projects with commercial potential; NCI participates in selection and confirms alignment.
- Time-boxed execution: Projects run one semester or less with clear TRL milestones and a brief start/finish report.
- Tradespace required: Each campus uses Tradespace to log disclosures, track TRL movement, run market/novelty checks, and manage partner outreach; a campus Tradespace champion ensures adoption.
- Industry signal, not isolation: Preference for projects aligned to six high-potential NC sectors—Advanced Manufacturing, AgTech, Biohealth, Computing & Informatics, Defense Innovation, Energy Transition & Electrification—and for documented industry relevance (e.g., letters of support when feasible).

Why it's critical to Pillar 1 (Pipeline Development):

- Turns scattered ideas into qualified deal-flow. Systematic assessments, early IP steps, and market checks create more—and better—applications for the statewide RFP.
- Builds equitable capacity. Regional campuses gain a repeatable "front door" and common tooling, reducing structural inequities in access to commercialization resources.
- Creates measurable leading indicators. TRL advancement, disclosures, and industry touches are captured uniformly in Tradespace, giving legislators a clear view of pipeline health before awards are made.

How it moves NCI's work forward (linkages to Pillars 2 & 3):

- Feeds Pillar 2 (Core NCI). Projects arrive RFP-ready with market context and early IP, improving proposal quality and time-to-diligence once funded.
- Primes Pillar 3 (Commercial Transition). Early industry engagement and clean records in Tradespace speed later steps—pilots, licensing, and investor outreach—once teams graduate into awards.

What we will track and report (REQUIREMENT 2 KPIs mapped to this initiative):

- Pipeline volume & viability: # of funded pre-TRL 3 projects; TRL advancement to ≥3; alignment to the six sectors.
- Commercialization readiness: # of invention disclosures/IP filings; # of new industry partnerships or letters; documented market/novelty analyses completed.
- Downstream conversion: # of projects that enter NCI's RFP pipeline or secure follow-on funding (SBIR/STTR, NC Biotech, foundations). These metrics roll up under Pipeline Development and show how early investments produce qualified applications and stronger results in the statewide awards program.

Key takeaway: The Pipeline Development Initiative de-risks research earlier and widens participation across the state. By adding a consistent, campus-level on-ramp and a shared platform, NCI ensures that more homegrown ideas cross the "too-early" chasm, enter our RFP with market traction, and ultimately become North Carolina companies, licenses, and jobs.

Workshops and Trainings

NCI has sponsored various Lunch & Learn Workshops, "Translating Research for Impact", to educate faculty in the development and messaging of their research. Workshops are geared towards faculty who struggle to explain their research in a way that resonates beyond academic peers, and teaches them effective ways to communicate their research to grant reviewers, policymakers and the public.

Faculty learn how to break down complex ideas, tell a compelling research story and craft lay-friendly summaries that strengthen your grant applications. Through interactive exercises and real-time feedback, you'll gain practical skills to make your work more accessible—and more fundable.
Workshops cover:

- Why Translating Research Matters and Common Pitfalls
- The Art of Simplification Without Oversimplifying
- Structuring a Lay Friendly Research Summary
- Storytelling in Research Commercialization
- Practical Application

NCI aims to expand the number and types of workshops available to faculty in 2025-2026.

Core Activities in 2025

Technology Development Strategy

In October of 2022, NCI released a report prepared by TEConomy Partners[1] that incorporated findings from RTI's *Blueprint for Building an Innovation Corridor*[2] and identified four key challenges that North Carolina faces in its efforts to commercialize university research: 1) uneven success outside of larger metro areas; 2) lack of applied research that addresses marketplace problems; 3) an underdeveloped capital landscape that does not sufficiently fund university innovation; and 4) a lack of regional innovation networks that would allow effective collaboration among universities, industry, and capital formation organizations.

Based on these new insights, NCI undertook a deeper, statewide analysis of North Carolina's innovation assets in close partnership with RTI International (RTI). RTI inventoried regional innovation assets and identified existing and emerging technology focus areas across the state. From this research, NCI published the Statewide Technology Development Plan which was delivered to the North Carolina General Assembly as an Appendix to NCI's June 2024 Semiannual Reporting to Gov Ops.

The research analysis that RTI conducted in preparation for completion of the Statewide Technology Development Plan contained proprietary information about university innovations and could not be shared in its entirety with NC universities. In FY25, NCI requested that RTI prepare a set of university-specific deliverables that could be shared with individual universities to inform strategic planning conversations. NCI also continued working with RTI during FY25 to expand upon the RTI analysis of the four original NCI hub universities by conducting additional university-specific studies at three additional universities, including UNC Greensboro, App State, and UNC Wilmington.

As a result of these additional studies, NCI has now shared university-specific deliverables with seven universities in the UNC System. In FY26, NCI intends to continue expanding its understanding of North Carolina's current and emerging technology strengths by analyzing two additional universities: NC Central University and Fayetteville State University. University-specific deliverables will be shared with these two institutions as well, bringing the number of university studies completed to a total of nine.

Statewide RFP

One of NCI's foundational programs is a grant program for North Carolina public higher education institutions to help 1) build capacity in applied research; 2) support technology development, start-up support, and licensing; 3) support IP development and patent protection; 4) provide non-dilutive funding to support advance of R&D to the point of commercial viability; and 5) provide support services

[1] TEConomy Partners, LLC. (2022). *Optimizing North Carolina's Innovation Ecosystem: Recommendations to Accelerate Commercialization of University-Based Innovations through Public-Private Partnerships*. Prepared for NCInnovation.
[2] Lawrence, S., Hogan, M. Q., VanLear, S., & Rieth, K. T. (2020). *A blueprint for building an innovation corridor*. RTI International.

after proof of viability. This program seeks to support faculty in building scalable solutions that have broad economic impact either in their region or extending beyond regional boundaries.

NCI's grants are designed to advance North Carolina research breakthroughs to the point of commercial viability. To do this, NCI's grants focus intensely on the middle phase of the R&D process – after proof of concept has been achieved, but before a technology is mature enough to attract private investment. This helps university researchers develop technologies to an inflection point, where a license for the intellectual property or a new startup company can be formed. Focusing on this phase maximizes the probability a promising research initiative can be commercialized.

NCI has awarded 25 projects across the state since launching its pilot program in 2024 and in response to the organization's first statewide RFP. Projects span technology readiness levels (TRL) three through six and stretch across various industry sectors. NCI will continue to build upon the first statewide RFP process and will accept and review grant applications biannually to align with the academic calendar.
To successfully manage and automate processes, NCI selected a grants management system (GMS) through a rigorous selection process facilitated by the consulting firm BDO. Throughout much of the 2025 calendar year, NCI has been working with the selected vendor, AkoyaGO, on the implementation of the system. The new system is expected to go live in September of 2025. NCI will continue conducting its fall 2025 grant cycle manually (outside the new GMS) while testing and troubleshooting the new system. The new system is anticipated to be fully operational in time for the spring 2026 grant cycle.
NCI's pilot programs completed their required semiannual and annual reports and participated in a cohort program led by RIoT and NC IDEA to further support the commercialization activities of their projects. NCI two-year pilot projects will continue to receive support from RIoT as they work to complete their projects. NCI one-year pilot projects will receive additional wrap around support. See *Table 5.2: Pilot Projects – Year Two Funding Activities.*

NCI's cohort of awarded projects in May 2025 have all begun work on their projects, have identified and contracted with Project EIRs, and will participate in the cohort programming led by RIoT.
The foundations of the NCI's Grant Program remain as follows:

- Merit-based: NCI evaluates each project independently and objectively.
- Technology agnostic: NCI accepts applications from all technology sectors. The overall strategy is informed by the statewide asset mapping and technology development plan.
- Equitable: NCI seeks to distribute grant funding across the regions and state.
- Engaged: NCI's processes emphasize frequent and meaningful interaction with faculty, substantial due diligence and extensive feedback.
- Continued success: NCI is committed to application development through resources and partnerships with existing providers and programs to strengthen a project's competitiveness.
- Sustainable: NCI only uses the interest generated from the endowment for grant funding to ensure the longevity in perpetuity of NCI funding.

Regional EIRs

In 2024, NCI established a network of Regional Entrepreneurs-in-Residence (EIRs) embedded within each of its four regional hubs across North Carolina. These EIRs are key partners in advancing the commercialization of applied research and driving regional economic development through innovation.

The EIR program is designed to accelerate NCI's mission by:

- Supporting commercialization education and training
- Coaching university-based teams pursuing translational research and startup formation
- Building relationships across academia, industry, and capital networks
- Enabling high-quality project sourcing and pipeline development

EIRs work in close collaboration with NCI's Programs team and Senior Regional Innovation Network Director in their respective region and operate as part of a statewide EIR cohort. While each EIR will be anchored in a single region, NCI encourages cross-regional collaboration of Regional EIRs to align expertise with sector-specific technologies.

Project EIR Program

NCI launched its entrepreneur in residence program (EIR) and faculty education programs in fiscal year 25. NCI continued to partner with NC IDEA, an independent, private 501(c)(3) foundation that fosters equitable economic development with competitive grants and programs for entrepreneurs and funding to strengthen the North Carolina entrepreneurial ecosystem. Through this partnership, initial focus was placed on NCI's eight pilot grant projects to maintain a high level of oversight and build the infrastructure with flexibility and opportunity to expand the EIR program alongside the growth of NCI's grants program. Over the year, NCI funded four Regional EIRs in each of NCI's four regions and matched Project EIRs with all awarded projects to focus on commercialization activities and milestones.

SBTDC MBA Summer Intern Program

NCI partnered with SBTDC to participate in the organizations summer MBA intern program and match interns with funded projects. The purpose of partnering with SBTDC to leverage their intern program is to further support the eight NCI pilot projects, particularly in their business and commercialization activities. The program is intended to provide additional wrap-around support and provide more resources and capacity to the work being completed by the Project EIRs. The PI's and Project EIRs developed workplans with their intern once assignments were made and surveys were completed at the end of the pilot program to determine effectiveness and impact of the program for consideration in future years.

Commercialization Activities in 2025

Commercialization Support and Programming

NCI partnered with RIoT to support funded projects in years one and two of funding. Year one support is intended to give project teams a strong, shared foundation. PIs and EIRs are new to working together and require immediate support with operating in alignment as a commercial venture. Workshops are designed to baseline all stakeholders involved in the first principles of business, startup methodology and terminology, and frameworks to aid the development of potential commercial pathways and immediate-term market engagement and experimentation. A successful outcome from Year 1 programming is that teams are operating harmoniously with clear roles and responsibilities and a track record of execution of business-side development and have clarified their Commercial Roadmap (potential pathways with defined MVEs) based on market feedback (through engaging industry partners and conducting customer discovery). Year 2 support is designed to ramp up projects that are at the point of testing customer demand and commercial solution hypotheses and/or provide additional coaching and mentorship on a project basis. Year 2 programming has an intensive focus on revenue growth, sales strategies, business operations (RevOps, ProdOps, etc), solution piloting, and customer pipelining/customer success. A successful outcome from Phase 2 Accelerator is project teams have established a commercial entity and executed first pilots/closed first customer(s). Year 2 Accelerator programming continues to give project teams a foundation for business strategy, commercialization progress, continued market validation, and internal operations.

Other Strategic Partnerships

- Department of Commerce: NCI's Chief Innovation Officer was invited to serve on the state's Strategic Economic Development Plan Steering Committee, which will develop a four-year comprehensive economic development plan.
- NC BioTech Center: Leveraging network of regional representatives for local ecosystem knowledge. Working with statewide leads to explore opportunities for co-hosted educational offerings. NCI's Senior Regional Innovation Network Director – Piedmont, Louis Judge, was also appointed to the organization's Board of Directors.
- Potential Commercialization Transition Partner: The Factory Start-Up Studio (Launch Greensboro) - Support for Minerva Lithium (UNCG). The Factory is a startup studio from Launch Greensboro (Greensboro Chamber) that delivers custom, wraparound services to accelerate product discovery, strengthen fundraising outcomes, and speed iterative execution with expert, universal business support.
- BSTI: Collaborating on tracking and supporting the technology based, university led consortia that include industry and ecosystem partners to win NSF Engines funding and EDA Tech Hubs funding.
- SBTDC: Leveraging network of regional representatives for local ecosystem knowledge and individual project support.

TABLE 5.1: FY2026 Budget

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Fiscal Year ending June 30, 2026 Budget

As approved by the Board of Directors May 14, 2025

Public & Private Revenue		
State Endowment Revenue	$	-
Private Pledge Contributions		-
Total Public & Private Revenue	$	-
Investment Income		
Interest - Private Investment	$	76,719
Interest - State Investment		20,457,132
Total Investment Income	$	20,533,851
Other Income		-
Total Revenue & Income	$	20,533,851
Operational Expenses		
Program Expenses		
Grants	$	13,575,828
Salaries & Benefits		2,444,622
Grant Management & Operations		40,000
Contract Research Services		297,000
Regional Hub Expenses		
Core NCI		489,275
Pipeline Development		1,333,397
Commercial Transition		191,250
Operational Expenses		212,691
Total Program Expenses	$	18,584,063
Salaries & Benefits		
Salaries & Incentive Expense	$	5,498,810
Payroll Tax Expense		427,095
Medical & Health Benefits		676,092
Employer 401K Contributions		243,396
Payroll Administration Fees		105,900
Total Salaries & Benefits	$	6,951,293
Allocation to Program Expense		(2,444,622)
Total Salaries & Benefits, Administrative	$	4,506,671

TABLE 5.1 (Continued)

General & Administrative Expenses		
Accounting Fees	$	103,124
Investment Management Fees		269,987
Investment Consulting Fees		9,000
Research & Consulting Fees		30,000
Legal Fees		150,000
Public Relations Expenses		198,000
Lobbying Expenses		150,000
Bank Service Fees		4,007
Business Registration Fees		1,371
Computer Expenses		106,879
Insurance		20,109
Postage, Mailing Service		1,854
Printing and Copying		12,360
Professional Development		25,282
Regional Sponsorship		16,500
Dues & Membership		13,496
Office Expense		15,000
Depreciation Expense		17,689
Staff Recruiting Fees		4,080
Rent & Utilities		226,767
Supplies		10,658
Telephone, Telecommunications		7,900
Travel, Conferences & Meetings		94,900
Total General & Administrative Expenses	$	1,488,962
Other Expenses		
Moving Expenses	$	12,500
Total Other Expenses	$	12,500
Total Expenses	$	24,592,195
Change in Net Assets	$	(4,058,345)

Summary of Expenses Less Grants		
Program Expense		
Regional Hubs	$	2,563,613
Salaries & Benefits		2,444,622
Total Program Expense	$	5,008,235
General & Administrative		
Salaries & Benefits	$	4,506,671
Other G & A Expenses		1,501,462
Total General & Administrative	$	6,008,132
Total Expenses	$	11,016,367

TABLE 5.2 Pilot Projects – Year Two Funding Activities

Pilot Projects FY24 – Year Two Funding Activities

Project	Years	Pathway	Next Steps
ASU – Bee Monitoring ($641,951)	2-years	Pathway A	Conduct deeper discovery across market segments and pressure-test customer demand and pricing. The hardware product is mature enough to begin selling within six months. It is time to form a company now.
WCU – Mosquito Data ($999,963)	2-years	Pathway A	Focus on business model development, customer acquisition strategy, and entity formation. Legal support around LLC formation and licensing terms is also critical.
UNCC – Power ($354,607)	1-year	Joules Accelerator	Scenergy has been accepted into Joules, an energy sector accelerator in Charlotte.
UNCC – Water Filtration ($400,971)	1-year	Pathway A	Focus support on leadership clarity, early sales, GTM design, and pilot structuring. NaneXPure should be driving revenue within the next 6 months.
UNCG – Lithium Refining ($404,999)	1-year	Regional provider	Focus on market positioning, customer engagement, and fundraising strategy. Secure operational and business development resource support if the EIR does not continue a relationship or role with Minerva Lithium.
NC A&T – Extracellular Vesicles ($369,024)	2-years	Pathway B	Continue 1:1 mentoring with RIOT targeted on narrowing the market focus, defining a minimum viable offering, and clarifying near-term commercial objectives
UNCW – Flu Vaccine ($1,082,696)	2-years	Pathway B	Continue 1:1 mentoring with RIOT targeted on filing the utility patent for the vaccine design, completing preclinical animal testing, and refining the commercialization narrative to align with pharma partner expectations.
ECU – Melanoma Immunotherapy ($974,000)	2-years	Pathway B + pivot to specialized advising	Continue 1:1 mentoring with RIOT and targeted expert support to finalizing regulatory designation plans for a lead indication, secure university licensing rights, and develop a robust commercialization narrative focused on strategic alignment with pharma priorities.

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Pathway A: Project teams matriculate into an intensive cohort program
Pathway B: Project teams continue with monthly 1:1 support

REQUIREMENT 7. A detailed explanation of how annual salaries are determined, including base pay schedules and any additional salary amounts or bonuses that may be earned as a result of job performance. The explanation shall include the means used by NCInnovation to foster employee efforts in rural and low-income areas in the State.

In September 2022, NCI entered into a co-employment relationship with Insperity, Inc. (NYSE: NSP; www.insperity.com), a national professional employer organization (PEO). Through this relationship, Insperity provides comprehensive human resource and employment services to NCI. In addition to human resource compliance, training, and employee benefits, Insperity's services include a suite of services to support all phases of employee recruitment and retention, such as: identifying organizational requirements and drafting position descriptions; recruiting, interviewing, background checks, and onboarding; salary & compensation benchmarking; and employee performance management.

Every employee at NCI works within a specific position description. Those descriptions include a Summary of Responsibilities and reporting structure; Job Duties; and Skills and Qualifications. Prior to posting a position, NCI provides Insperity with a copy of the job description for that position and requests an independent compensation benchmark report. Insperity provides base, bonus, and total compensation benchmarks curated against similar duties/responsibilities in similar organizations, and which reflect any relevant geographical factors. NCI uses this information and a particular candidate's relevant knowledge, skills, abilities, and experience to determine competitive base and any bonus compensation amounts. All employment offers are conveyed in writing, include a copy of the relevant position description, and summarize base and, if applicable, discretionary bonus opportunities. Candidates are required to sign and return their written offers, which stipulate any employment arrangement is "at will."

Using Insperity's online performance evaluation tools, each employee receives an annual performance appraisal, and the payment of any discretionary bonuses, if applicable, are tied to such appraisals and the metrics established between each employee and their supervisor within the first year of employment. At its August 13, 2025, meeting, the NCI Board approved the Executive Committee recommendation for a new timing process transitioning the organization's annual appraisals from point of hire to a standardized annual basis.

NCI uses this information to foster employee efforts in rural and low-income areas in the State by ensuring its wages (base and performance bonuses) and employee benefits (medical, dental, vision, retirement, and other Insperity-sponsored employee benefits) are competitive both within their local markets and across the State. Further, NCI has assigned and co-located regional & hub directors at each of its hub locations, which both provides a physical presence for the company and creates jobs in the regions the organization serves.

For REQUIREMENT 7 the following *APPENDIX: FY2025 State Funded Positions* includes salary data for the employees of NCI that are directly involved in our two programs and have salaries paid for, whole or in part, with State funds that are accrued in our FY2025 financials.

Appendix: State Funded Positions

NCInnovation, Inc.

FY25 Employee Compensation - Allocated to State Funds July 1, 2024 - June 30, 2025

Preliminary and Unaudited

			FY2025 FY25 Compensation - State Funds Only		
Staff by Department	**Title**	**Date of Hire**	**Base Pay**	**Incentive Pay**	**Total**
Program - Grants & Regional Hubs					
Regional Hubs					
Mary Lou Bourne	Senior Regional Director, Charlotte (UNCC)	10/9/2023	$ 127,650	$ 12,350	$ 140,000
Meagan Coneybeer	Senior Regional Director, West (WCU)	10/9/2023	$ 127,650	$ 12,350	$ 140,000
Derrick Welch	Senior Regional Director, East (ECU)	10/9/2023	$ 127,650	$ 12,350	$ 140,000
Louis Judge	Senior Regional Director, Piedmont (NCA&T)	10/9/2023	$ 127,650	$ 12,350	$ 140,000
David Wyrick	Vice President, Regional Networks & Hubs	10/1/2024	$ 140,000	$ -	$ 140,000
Scott Davis	Hub Director, UNCW	1/8/2025	$ 60,239	$ -	$ 60,239
Alison Beatty	Hub Director, FSU/UNCP	1/8/2025	$ 60,239	$ -	$ 60,239
LaKeya Hardy	Hub Director, NCA&T	5/19/2025	$ 15,545	$ -	$ 15,545
			$ 786,623	$ 49,400	$ 836,023
Program Partnerships					
Erin Hopper	Vice President for Grants & Research	10/9/2023	$ 126,400	$ 13,600	$ 140,000
Carly Hemminger	Director of Programs and Strategic Initiatives	1/10/2023	$ 110,833	$ 11,875	$ 122,708
Elise Fisher	Project Coordinator	1/6/2025	$ 27,486	$ -	$ 27,486
Charlotte Stowe	Grants Operations Manager	1/27/2025	$ 41,233	$ -	$ 41,233
			$ 305,952	$ 25,475	$ 331,427
	Total		**$ 1,092,574**	**$ 74,875**	**$ 1,167,449**