



one north carolina  
**Small Business Program**

**FISCAL YEAR 2022 REPORT ON THE COMMITMENT,  
DISBURSEMENT, AND USE OF FUNDS**

As Required by §143B-437.83 of the  
North Carolina General Statutes

<b>Citation of Law or Resolution:</b>	S.L. 2009-451
<b>Section Number:</b>	Section 14.5(c)
<b>Due:</b>	September 1, 2022

**Receiving Entities:**

The Joint Legislative Commission on Governmental Operations  
The Chairs of the House of Representatives and Senate Finance Committees  
The Chairs of the House of Representatives and Senate Appropriations Committees  
The Fiscal Research Division of the General Assembly

**Submitting Entity:**

The Board of Science, Technology & Innovation of the Department of Commerce

## BACKGROUND

The federal Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) Programs grant competitive awards to small businesses for Phase I proof-of-principle research and development (R&D) and Phase II early-stage product development.

The SBIR program is a highly competitive, merit-based award system designed to stimulate technological innovation, strengthen the role of small businesses in meeting federal R&D needs, and increase private sector commercialization of innovations derived from federal R&D. Enacted in 1982 as part of the Small Business Innovation Development Act, (and then reauthorized multiple times), the SBIR program requires federal agencies with more than \$100 million in extramural R&D to allocate a percentage of their budgets exclusively for small businesses. This set-aside began in 1983 at 0.2% and is currently 3.2%, resulting in the availability of approximately \$3.28 billion in fiscal year 2019<sup>1</sup> to small businesses R&D.

The STTR program is like the SBIR program, but its unique feature is its *requirement* that the small business work jointly with a non-profit research institution. A minimum of 40% of the work must be performed by the small business and a minimum of 30% by the non-profit research institution. Such institutions include federally funded research and development centers (FFRDCs), universities, university-affiliated hospitals, and other non-profits. Established by Title II of the Small Business Research and Development Enhancement Act of 1992, Public Law 102-564, the STTR program requires federal agencies with more than \$1 billion of extramural R&D to reserve 0.45% of their budgets for R&D small businesses and their partners. This set-aside currently results in the availability of approximately \$453 million for fiscal year 2019.<sup>1</sup>

The One North Carolina Small Business Program (hereinafter “the Program”) —the subject of this report—entails two State-funded programs: the **SBIR/STTR Phase I Matching Funds Program** and the **SBIR/STTR Phase I Incentive Funds Program**.<sup>2</sup> North Carolina is among a handful of innovative states that have seen the value of leveraging federal SBIR/STTR funds with State support of this type.

This report provides FY 2022 (7/1/2021-6/30/2022) commitment and disbursement information for both the Matching Funds Program and the Incentive Funds Program. Information for previous fiscal years is available in previously submitted year-end reports.

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<sup>1</sup> 2019 is the latest year for which comprehensive data are available.

<sup>2</sup> Descriptions of both programs are provided later in this report, on pages 4 and 15, respectively.

## PROGRAM IMPACT

Between FY 2006 and FY 2022, 659 grants, totaling more than \$33.1 million, were issued to North Carolina small businesses.<sup>3</sup> As measured in a comprehensive evaluation of the Program in 2017,<sup>4</sup> this support has helped enable:

- the creation and retention of nearly 900 private sector jobs statewide – more to come as more companies benefit and grow.
- 399 small businesses to develop innovative new technologies, most of which have been commercialized, including biotechnologies, nanotechnologies, medical technologies, computer software, military/defense technologies, agricultural technologies, pharmaceuticals, textiles, and other high-tech applications.
- more than 77 percent of the small businesses to remain in operation.
- the small businesses to attract more than \$515 million in external investment, including more than \$122 million in follow-on federal funds.
- 60 percent of North Carolina matching grant winners to win Phase II federal grant awards, each with a considerably larger average value of \$1 million (nationally, 54 percent of Phase I award winners graduate to Phase II awards).
- the small businesses to produce more than \$125 million in total first-year sales resulting directly from the technology developed with Program funding.
- significant technology/business-development partnerships among North Carolina universities & businesses.

Most of these companies are small and still growing, albeit rapidly. Thus, these impacts will multiply greatly as the grants become fully utilized over time to grow new businesses and enhance existing businesses.

## SAMPLE TESTIMONIALS

*“GreenLifeTech is well suited to continue its growth in N.C. in part due to the N.C. Matching Funds Program. Both our product and market development are proceeding with product release early 2023. The NCBST [North Carolina Board of Science and Technology] grants were instrumental in accelerating our company's growth.”*

*~ GreenLifeTech Corporation, Banner Elk*

*“This grant provides outside investment in NC small businesses and, in turn, strengthens proposals for Phase II efforts.”*

*~Vidterra, LLC, Wilmington*

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<sup>3</sup> This includes 140 incentive grants, totaling \$571,425, and 519 Matching grants, totaling \$32,596,162. Information on grants in previous years is available in previously submitted year-end reports.

<sup>4</sup> The Board of Science, Technology & Innovation conducts a comprehensive, in-depth evaluation of the Program every five years. The latest evaluation of this type was conducted in calendar year 2017; the next evaluation is scheduled for fiscal year 2023.

*“We used the One North Carolina SBIR Phase 1 Matching Funds to hire our first full-time scientist, besides our founding scientists. This hire was essential in performing initial experiments and setting up our first lab space.”*

**~Upstream Biotechnology, Inc., Sanford**

*“The Program is an excellent offering by the State. The support certainly contributed to the successful funding of our proposal. This allowed us to make investments in our infrastructure, which both could not have been done otherwise, and will be long lasting.*

**~Adamas Nanotechnologies, Inc., Raleigh**

*“Grant covered initial cost to prepare proposal allowing UPT to use internal Research and Development dollars to continue research in area.”*

**~United Protective Technologies, LLC, Locust**

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## **MATCHING FUNDS PROGRAM**

### **Overview**

The North Carolina SBIR/STTR Phase I Matching Funds Program awards matching funds to North Carolina-based small businesses that have received a federal SBIR or STTR Program Phase I award. The North Carolina Board of Science, Technology & Innovation, a division of the North Carolina Department of Commerce, administers the Program.

Under the Program’s authorizing provisions, awards can be made to eligible businesses for up to 100 percent of a company's federal Phase I SBIR/STTR Program award, up to a maximum amount of \$200,000, until funds available for the Program have been exhausted.<sup>5</sup> Applicants who receive Matching Awards receive 75 percent (Stage 1) of the award amount upon receipt of an SBIR/STTR Phase I award and receive the remaining 25 percent (Stage 2) of the award if their Phase I report is accepted by the funding agency and they submit a related Phase II application to the funding agency. Phase II SBIR/STTR awards can exceed \$1million.

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<sup>5</sup> Due to funding limitations, the FY 2022 solicitation awards were capped at 50 percent of a company’s federal Phase I SBIR/STTR Program award, up to a maximum amount of \$75,000

## **Purpose**

The purpose of the Matching Program is to foster job creation and economic development in North Carolina by increasing the competitive position of North Carolina small businesses in attracting SBIR and STTR grant funding, and to provide an incentive for Phase I award-winning firms to participate in the more substantial Phase II program. The goals of the Matching Program are to:

1. Increase the amount of federal research dollars received by North Carolina small businesses.
2. Increase the intensity of the research conducted under Phase I, making North Carolina small businesses more competitive for Phase II funds.
3. Help North Carolina businesses bridge the funding gap period between the final Phase I payment and the first Phase II payment in the federal SBIR/STTR Program.
4. Encourage the establishment and growth of high-quality, advanced technology companies in the State of North Carolina.

## **FY 2022 Summary**

- The One N.C. Small Business Program received \$5,000,000 in direct appropriations, of which \$4,660,089.60 was allocated for the Matching Funds Program.
- The Program awarded 67 Matching Grants in FY 2022, obligating \$4,660,089.60 - 100% of its allocation. By June 30, 2022, \$3,334,520.59 had been disbursed. The remaining disbursements were made early in the next fiscal year.
- Disbursements included 64 Stage I payments and one Stage II payment to FY 2022 Grantees.

**TABLE 1: FY 2022 One North Carolina Small Business Matching Funds Program Grantees and Disbursements**

Organization Legal Name	Project Title	Organization City	Organization County	Total Grant Amount Committed	Committed Fiscal Year	Amount Disbursed in FY 2022
410 Medical, Inc.	Novel Rapid Infuser Optimized for Prehospital Resuscitation in Austere Environments	Durham	DURHAM	\$25,000.00	2022	\$18,750.00
AccuNovo Biotechnologies, Inc.	Theranostic NTSR1-targeting Agents for Complementary Management of PSMA-negative Prostate Cancer	Chapel Hill	ORANGE	\$75,000.00	2022	\$56,250.00
Adamas Nanotechnologies, Inc.	Nanodiamond Quantum Sensors for Free Radical Detection	Raleigh	WAKE	\$75,000.00	2022	\$56,250.00
Advanced Materials Manufacturing	Composite Metal Foam for Microreactors	Raleigh	WAKE	\$75,000.00	2022	\$56,250.00
AimMax Therapeutics, Inc.	Optimization and Characterization of Novel Antifungal Peptides	Durham	DURHAM	\$75,000.00	2022	\$56,250.00
Airilabs, Inc.	Diffraction Tomography for Accurate Digital Pathology on a Portable Microscope	Durham	DURHAM	\$75,000.00	2022	\$56,250.00
Amissa, Inc	A Multifaceted Digital Health Platform to Advance Alzheimer's Disease Patient Monitoring, Safely, Care, and Research	Charlotte	MECKLENBURG	\$75,000.00	2022	\$56,250.00
ArchAlc, LLC	Camera-Based Multimodal AI for Health Monitoring	Matthews	UNION	\$75,000.00	2022	\$56,250.00

Organization Legal Name	Project Title	Organization City	Organization County	Total Grant Amount Committed	Committed Fiscal Year	Amount Disbursed in FY 2022
Artiam Bio, Inc.	Therapeutic Strategy for NASH	Morrisville	WAKE	\$70,708.50	2022	\$53,031.38
Assist Equipment Development, Inc.	A Low-Cost, Practical Fitness Monitor of Socket-Suspension Systems for Lower Limb Amputees	Cary	WAKE	\$75,000.00	2022	\$56,250.00
Avolynt, Inc.	Remogliflozin Etabonate Effect on Primary Biliary Cholangitis	Durham	DURHAM	\$75,000.00	2022	\$56,250.00
AxNano, LLC	Development of a Smart PFAS-Collector for High-Throughput PFAS Detection	Greensboro	GUILFORD	\$75,000.00	2022	\$56,250.00
Bedrock Therapeutics	Immunosuppressive Gene Therapy for Ocular Graft Vs Host Disease	Raleigh	WAKE	\$75,000.00	2022	\$56,250.00
Blue Force Technologies, Inc.	Advanced Manufacturing for Rapid, Affordable-Attritable Airframes	Morrisville	WAKE	\$24,993.00	2022	\$18,744.75
Boundless Science, LLC	Aerosol Ventilation for Rapid Cooling of Transplant Donor Lungs	Chapel Hill	ORANGE	\$75,000.00	2022	\$56,250.00
Claradele Pharmaceuticals, Inc.	Development of a Small Molecule Immunomodulator for the Treatment of Melanoma	Winterville	PITT	\$75,000.00	2022	\$0.00
Collaborations Pharmaceuticals, Inc.	Machine-learning Approaches to Predict Acetylcholinesterase Inhibition	Fuquay Varina	WAKE	\$75,000.00	2022	\$56,250.00

Organization Legal Name	Project Title	Organization City	Organization County	Total Grant Amount Committed	Committed Fiscal Year	Amount Disbursed in FY 2022
ColoWrap, LLC	Novel, Non-Manual Solution for Mitigating Endoscope Looping in Riskier Colonoscopies	Durham	DURHAM	\$75,000.00	2022	\$56,250.00
Construkts, Inc.	Mixed-Reality Learning Platform for Middle School Mathematics	Winnabow	BRUNSWICK	\$75,000.00	2022	\$56,250.00
Coprata, Inc.	Smart Toilet with Artificial Intelligence for Remote Management of Inflammatory Bowel Disease	Durham	DURHAM	\$75,000.00	2022	\$56,250.00
Deep Creek Pharma, LLC	Improved Treatment of Colorectal Cancer with CF10	Yadkinville	YADKIN	\$75,000.00	2022	\$56,250.00
Drakeford, Scott, & Associates, LLC	An integrated Digital Approach to Mental Health and Skill Development for Workforce Re-entry (COVID-19)	Durham	DURHAM	\$75,000.00	2022	\$56,250.00
Drive Therapeutics, LLC	Optimizing Assembly of Bispecific Aptamer Therapeutics	RTP	DURHAM	\$75,000.00	2022	\$56,250.00
Epigenos Biosciences, Inc.	Site-specific Epigenetic Activation of TP53 to Improve Cancer Therapy	Greenville	PITT	\$69,982.00	2022	\$52,486.50
EydisBio, Inc.	Acute Inhibition of TAK1 as a Means to Control COVID-19 Pulmonary Hyperinflammation	Durham	DURHAM	\$75,000.00	2022	\$56,250.00

Organization Legal Name	Project Title	Organization City	Organization County	Total Grant Amount Committed	Committed Fiscal Year	Amount Disbursed in FY 2022
Geometric Data Analytics	DTFAAST: Distributed Topological Fingerprints Automating Anomaly, Search & Testing	Chapel Hill	ORANGE	\$75,000.00	2022	\$56,250.00
Glycan Therapeutics Corporation	Development of Heparan Sulfate-based Therapeutics to Treat Inflammatory Diseases	Raleigh	WAKE	\$75,000.00	2022	\$56,250.00
Gradient Medical	Feasibility of INSPIRE Technology to Enhance CRISPR Mediated Genome Editors In Vivo	Cary	WAKE	\$75,000.00	2022	\$56,250.00
GreenLifeTech Corporation	Automatic Food Preservation in the Retail Environment	Banner Elk	AVERY	\$49,275.00	2022	\$36,956.25
Impulse Wellness, LLC	IW - Bluetooth Electromyography-based Stroke Therapeutic (BEST): Shifting the Paradigm with Biofeedback-Driven Home Therapy	Raleigh	WAKE	\$49,999.00	2022	\$37,499.25
Insightfinder, Inc.	Artificial Intelligence (AI) System for Enterprise Software Incident Management	Raleigh	WAKE	\$75,000.00	2022	\$0.00
inSoma Bio, Inc.	An Injectable Protein Matrix to Enhance the Stability of Autologous Fat Grafts	Durham	DURHAM	\$75,000.00	2022	\$56,250.00
Isolere Bio, Inc.	LentiTag: A novel approach to the efficient manufacturing of active lentiviral vectors	Durham	DURHAM	\$75,000.00	2022	\$56,250.00

Organization Legal Name	Project Title	Organization City	Organization County	Total Grant Amount Committed	Committed Fiscal Year	Amount Disbursed in FY 2022
Lumedica, Inc.	Low-cost Spectroscopic OCT for GI Applications	Durham	DURHAM	\$65,163.00	2022	\$48,872.25
METIS Health Analytics, LLC	Quality and Safety Monitoring of Clinical Computed Tomography Practice	Chapel Hill	ORANGE	\$75,000.00	2022	\$56,250.00
MicroElastic Ultrasound Systems, Inc.	Ultrasound-Based Device to Guide Treatment of Lymphedema Using Skin Elasticity as a Biomarker	Durham	DURHAM	\$75,000.00	2022	\$56,250.00
Mimetics, LLC	Yeast-Based Biosensors for Detecting Pathogenic Bacteria in Aquaculture Systems	Durham	DURHAM	\$74,595.50	2022	\$55,946.63
Minerva Lithium, LLC	Point-Of-Use Nano Mosaic Filter Technology for Lithium	Greensboro	GUILFORD	\$75,000.00	2022	\$56,250.00
Oncotrap, Inc.	mRNA Delivery of a Panel of Single-Domain Antibodies for Combinatorial Deciphering of Therapeutic Targets for Covid-19 Related Cytokine Release Syndrome	Chapel Hill	ORANGE	\$75,000.00	2022	\$56,250.00
Oncurie, Inc.	Self-assembling Molecular Brachytherapy for Treatment of Metastatic Cancer	Raleigh	WAKE	\$75,000.00	2022	\$56,250.00

Organization Legal Name	Project Title	Organization City	Organization County	Total Grant Amount Committed	Committed Fiscal Year	Amount Disbursed in FY 2022
Optera, LLP	NSF STTR Phase I: Investigation and Optimization of a Novel, Pheromone-based Tool for Measuring Honeybee Colony Pest and Disease Resistance	Greensboro	GUILFORD	\$75,000.00	2022	\$56,250.00
Oxford Defense North Carolina, LLC	Multifunctional Metamaterial Laser Energy Control	Durham	DURHAM	\$56,164.00	2022	\$42,123.00
People Designs, Inc.	An eHealth Platform to Facilitate Financial Understanding and Legal Preparation for Patients with Dementia and Their Caregivers	Durham	DURHAM	\$75,000.00	2022	\$56,250.00
Perfusio Corporation	Multi-spectral Physiologic Visualization Imaging for Non-contact Real-time Capture of Cardiovascular Vital Signs Using a Novel Optical Engineering Design	Greenville	PITT	\$75,000.00	2022	\$56,250.00
Perotech, Inc.	Large Area Hard X-ray Imager Based on Metal Halide Perovskite Nanocrystals	Chapel Hill	ORANGE	\$75,000.00	2022	\$56,250.00
Phase, Inc.	Additive Manufacturing of PDMS Microfluidics	Cornelius	MECKLENBURG	\$75,000.00	2022	\$56,250.00
Phaxtec, Inc.	Production Pathways of Biopolymers for Barrier Paper Coatings	Wake Forest	WAKE	\$75,000.00	2022	\$56,250.00

Organization Legal Name	Project Title	Organization City	Organization County	Total Grant Amount Committed	Committed Fiscal Year	Amount Disbursed in FY 2022
Predictive, LLC	STopTox: A Comprehensive in Silico Platform for Predicting Systemic and Topical Toxicity	Raleigh	WAKE	\$73,851.00	2022	\$55,388.25
Prevention Strategies, LLC	Prototype for an Online Skills-based Drug Prevention Program Targeting Youth 11-13	Greensboro	GUILFORD	\$75,000.00	2022	\$56,250.00
Proximal, LLC	An Easy-to-use Virtual Reality Development Toolkit for Education	Raleigh	WAKE	\$75,000.00	2022	\$56,250.00
Quantworks, Inc.	Drone-Delivered AEDs for Treatment of Out-of-Hospital Cardiac Arrest	Carrboro	ORANGE	\$75,000.00	2022	\$0.00
Reselute, Inc.	Localized and Sustained Antibiotic Delivery for Treatment of Periprosthetic Joint Infection (PJI) in Arthroplasty Patients	Durham	DURHAM	\$75,000.00	2022	\$56,250.00
Secmation, LLC	Vehicle Root of Trust - Cryptography and Cybersecurity	Raleigh	WAKE	\$59,181.03	2022	\$44,385.77
Selsym Biotech, Inc.	Increasing Efficiency of sdFv Production in a Tobacco-based System for Synthetic Platelet Design	Cary	WAKE	\$56,575.50	2022	\$42,431.63
Smart Girls HQ, LLC	Dear Smart Girl: Game-Based STEM Career Exploration for Elementary Aged Girls	Charlotte	MECKLENBURG	\$75,000.00	2022	\$56,250.00

Organization Legal Name	Project Title	Organization City	Organization County	Total Grant Amount Committed	Committed Fiscal Year	Amount Disbursed in FY 2022
Susteon, Inc.	A Green Process for Low-cost Production of Silicon Carbide from Waste Silicon	Cary	WAKE	\$75,000.00	2022	\$56,250.00
Tellus Therapeutics	Development of a Novel Therapeutic for Treatment of White Matter Injury in Premature Infants	Hillsborough	ORANGE	\$75,000.00	2022	\$56,250.00
Theia Imaging	A Widefield, Handheld OCT system for Patients who are Unable to Cooperate	Durham	DURHAM	\$75,000.00	2022	\$56,250.00
Third Floor Materials, Inc.	Epsilon-near-zero Tunneling Diodes for Room-temperature IR Detectors and Light Sources	Durham	DURHAM	\$37,414.57	2022	\$28,060.93
Triangle Environmental Health Initiative	A Compact, Modular Wastewater Treatment System for Non-potable Reuse of Household Greywater	Durham	DURHAM	\$50,000.00	2022	\$37,500.00
United Protective Technologies, LLC	Low Emissivity Transparent Hypersonic Atomic Layer (LETHAL) Composite Windows	Locust	STANLY	\$69,913.00	2022	\$52,434.75
Versametrics, LLC	Enabling Study of Electrically Transduced Information from Biomolecules with a Low-cost, Versatile Measurement (Versametrics) System	Durham	DURHAM	\$75,000.00	2022	\$56,250.00
Vidterra, LLC	Low Latency ISR Video Distribution Over Starlink	Wilmington	NEW HANOVER	\$24,813.50	2022	\$24,813.50

Organization Legal Name	Project Title	Organization City	Organization County	Total Grant Amount Committed	Committed Fiscal Year	Amount Disbursed in FY 2022
Vigilant Cyber Systems, Inc.	Industrial Hygienist Assessment Tool	Mount Airy	SURRY	\$75,000.00	2022	\$56,250.00
Vizma Life Sciences	Automated microfluidic hyperpolarization reactor for neurometabolic imaging	Durham	DURHAM	\$75,000.00	2022	\$56,250.00
Voxel Innovations	Internal Finishing of Metal Additive Parts with Electrochemical Machining	Raleigh	WAKE	\$52,461.00	2022	\$39,345.75
Zymeron Corporation	Novel Antibiotic Targeting Multidrug-Resistant Pseudomonas Aeruginosa Infections	Durham	DURHAM	\$75,000.00	2022	\$56,250.00
<b>TOTAL</b>				<b>\$4,660,089.60</b>		<b>\$3,332,520.59</b>

*NOTE: Committed and disbursed amounts in the table above differ because businesses receive 75 percent of the committed grant amount upon award, and the remaining 25 percent after certain Program performance/completion criteria are met. The remaining 25 percent disbursement often occurs in a different fiscal year from the original commitment fiscal year.*

## **INCENTIVE FUNDS PROGRAM**

### **Overview**

The North Carolina SBIR/STTR Phase I Incentive Funds Program reimburses qualified North Carolina businesses for a portion of the costs incurred in preparing and submitting Phase I proposals for the U.S. Government's SBIR and STTR Programs. Under the Incentive Funds Program, the State issues qualified applicants a grant for approved Phase I Proposal preparation costs, up to \$12,000 for Tiers 1 and 2 and \$6,000 for Tier 3 counties. These grants are awarded to qualified applicants on a first-come, first-served basis, up to the limits of available funding. The North Carolina Board of Science, Technology & Innovation, a division of the North Carolina Department of Commerce, administers the Program.

### **Purpose**

The purpose of the Incentive Program is to foster job creation and economic development in North Carolina by encouraging North Carolina small businesses to compete for federal SBIR and STTR awards. The goal of the Incentive Program is to increase the number of North Carolina applications for federal SBIR and STTR Phase I awards.

### **FY 2022 Summary**

- The One N.C. Small Business Program received \$5,000,000 in direct appropriations, of which \$289,910.40 was allocated for the Incentive Funds Program.
- The Program awarded 50 grants, obligating \$308,143.27 - 106% of allocated funds. Additional funding came from funds that were unobligated from previous years' grantees who were unable to meet the requirements for their Stage II disbursement.
- FY 2022 disbursements included payment to 27 FY 2022 Incentive Fund Grantees totaling \$175,811.75.

The Incentive Funds Program has led to greater geographical fund distribution across the State.

**TABLE 2: FY 2022 One North Carolina Small Business Incentive Funds Program Grantees and Disbursements**

Organization Legal Name	Project Title	Organization City	Organization County	Total Grant Amount Committed	Committed Fiscal Year	Amount Disbursed in FY 2022
3-C Institute for Social Development, Inc.	The SE-Learn Online Professional Development Platform for Enhanced Social Emotional Learning with Students	Durham	DURHAM	\$5,999.80	2022	\$0.00
3F, LLC	Self-Reinforced Polymer Filament for Additive Manufacturing	Hickory	CATAWBA	\$12,000.00	2022	\$0.00
8EIGHT8SIX2NINE	Novel Process to Develop Nonwoven Materials with Enhanced Stretch and Recovery	Raleigh	WAKE	\$1,000.00	2022	\$0.00
Adamas Nanotechnologies, Inc	C54-27a Atmospheric Pressure Plasma Functionalization of Nanodiamond Particles	Raleigh	WAKE	\$6,000.00	2022	\$6,000.00
Advanced Materials Manufacturing	Composite Metal Foam for Microreactors	Raleigh	WAKE	\$6,000.00	2022	\$6,000.00
Archimedes Analytical, LLC	Biobased Material/Textiles for Military Applications	Hickory	CATAWBA	\$8,250.00	2022	\$0.00
Artiam Bio, Inc.	Treatment for Cannabis Use Disorder	Morrisville	WAKE	\$6,000.00	2022	\$6,000.00
Atom Bioworks, Inc.	Designer DNA Nanostructure-based Metastatic Cell Isolation Platform	Cary	WAKE	\$6,000.00	2022	\$0.00

Organization Legal Name	Project Title	Organization City	Organization County	Total Grant Amount Committed	Committed Fiscal Year	Amount Disbursed in FY 2022
BioKier, Inc.	Clinical development of a promising nutrient supplement to evaluate effects on cholesterol levels in patients with diabetes	Chapel Hill	ORANGE	\$6,000.00	2022	\$6,000.00
BioMojo, LLC	BioMojo IT/AT	Cary	WAKE	\$6,000.00	2022	\$6,000.00
Branelie Health, Inc.	Heads Together Health: A novel, machine learning based digital health platform for personalized management of concussion patients	Chapel Hill	ORANGE	\$6,000.00	2022	\$0.00
Callahan-Young, LLC	Jigsawdio Audio Visual Jigsaw Puzzle	Raleigh	WAKE	\$5,000.00	2022	\$0.00
Coprata, Inc.	Smart Toilet with Artificial Intelligence for Remote Management of Inflammatory Bowel Disease	Durham	DURHAM	\$6,000.00	2022	\$6,000.00
Cosmic Eats, Inc.	Cosmic Eats' Mobile Food Production Solution for Food Deserts	Cary	WAKE	\$6,000.00	2022	\$6,000.00
Daimler Devices	Validation of Novel Suture Clip Technology for Tendon Repair	Raleigh	WAKE	\$6,000.00	2022	\$0.00
Dignify Therapeutics, LLC	Mechanoreceptor-induced Defecation in Type 2 Diabetes	RTP	DURHAM	\$6,000.00	2022	\$0.00

Organization Legal Name	Project Title	Organization City	Organization County	Total Grant Amount Committed	Committed Fiscal Year	Amount Disbursed in FY 2022
EydisBio, Inc.	Development of a Novel, Third-Generation Inhibitor of FLT3 for the Treatment of Relapsed or Refractory Acute Myeloid Leukemia	Durham	DURHAM	\$5,967.00	2022	\$5,967.00
Glycan Therapeutics Corporation	Construction of Chondroitin Sulfate Microarray	Raleigh	WAKE	\$6,000.00	2022	\$6,000.00
GreenLifeTech Corporation	Hormetic Dose-Response Relationship of Gaseous Ozone in Low Oxygen-Environment for Consumer Market Integration and Household Use	Banner Elk	AVERY	\$12,000.00	2022	\$12,000.00
Health Outcomes, Inc.	Development of a cloud-based, self-report SUD intake system enabling primary care clinicians to routinely complete, implement, document, and bill for biopsychosocial assessments for the underserved	Chapel Hill	ORANGE	\$6,000.00	2022	\$0.00
iEdapts, LLC	Saving Our Students "SOS" AI-GAP Assessment e-Learning platform.	Charlotte	MECKLENBURG	\$4,400.00	2022	\$0.00
Impulse Wellness, LLC	IW - Bluetooth Electromyography-based Stroke Therapeutic (BEST): Shifting the Paradigm with Biofeedback-Driven Home Therapy	Raleigh	WAKE	\$5,798.98	2022	\$5,798.98

Organization Legal Name	Project Title	Organization City	Organization County	Total Grant Amount Committed	Committed Fiscal Year	Amount Disbursed in FY 2022
Innovation Therapies	HappyHEART: A collaborative approach to managing behavioral health symptoms and cardiovascular disease	Hope Mills	CUMBERLAND	\$2,881.72	2022	\$0.00
Intermodal Logistics Consulting, Inc.	Multi-agent Tracking of Dilemma Zone Conflicts with AI Video Analytics and Traffic Conservation Law	Winston-Salem	FORSYTH	\$3,000.00	2022	\$0.00
Kyma Technologies, Inc.	Low-Cost Manufacturing of High Quality GaN Substrates	Raleigh	WAKE	\$6,000.00	2022	\$6,000.00
Lumedica, Inc.	Dental Optical Imaging Probe Using Low-Cost 1580 nm OCT	Durham	DURHAM	\$6,000.00	2022	\$0.00
Markeyia Tech, LLC	Global Energy Intelligence Security Command Infrastructure (GEISCI)	Clayton	JOHNSTON	\$1,734.64	2022	\$1,734.64
MSI Software Solutions, LLC	MSiReader Pro: An Intuitive and Innovative Vendor Neutral Software for Mass Spectrometry Imaging	Raleigh	WAKE	\$6,000.00	2022	\$0.00
Mucommune, LLC	Fast Dissolving Antibody Tablets for Preventing Vaginal HSV Transmission	Durham	DURHAM	\$6,000.00	2022	\$6,000.00
Mycologics, LLC	A Novel Biocontrol Agent against Fungal Infection and Fungal Toxin Contamination on Food and Feed Crops	Durham	DURHAM	\$5,996.74	2022	\$5,996.74

Organization Legal Name	Project Title	Organization City	Organization County	Total Grant Amount Committed	Committed Fiscal Year	Amount Disbursed in FY 2022
Olfax, LLC	Development of an Intranasal, Direct-to-nerve Treatment for Headache Disorders	Asheville	BUNCOMBE	\$6,000.00	2022	\$0.00
PestStop LLC	Efficacy and Safety of Novel Hemp-Based Pesticides	Pembroke	ROBESON	\$750.00	2022	\$0.00
Praetego, Inc.	Multifunctional Amadorins for Treatment of Alzheimer's Disease and Related Dementias	RTP	DURHAM	\$6,000.00	2022	\$0.00
Prohuman Technologies	Development of a self-adjustable wearable combining thermo, cryo and compression therapy for recovery and pain management	Concord	CABARRUS	\$6,000.00	2022	\$6,000.00
Redbud Labs, Inc.	Improving extraction success of FFPE samples with automated and reliable microfluidic sample preparation	RTP	DURHAM	\$6,000.00	2022	\$6,000.00
Resolved Analytics, PLLC	Social App Technologies to Enable Small Businesses with Narrative Based Marketing	Durham	DURHAM	\$6,000.00	2022	\$0.00
Smart Girls HQ, LLC	Dear Smart Girl: Game-Based STEM Career Exploration for Elementary Aged Girls	Charlotte	MECKLENBURG	\$6,000.00	2022	\$0.00
Social Cascade, LLC	Advancing Early Relational Health through an Intelligent Content Delivery Engine	Raleigh	WAKE	\$6,000.00	2022	\$6,000.00
SonoVascular, Inc.	Quadruple-action Thrombectomy System for Single-pass Treatment of Thrombi in Acute Ischemic Stroke	Chapel Hill	ORANGE	\$5,500.00	2022	\$5,500.00

Organization Legal Name	Project Title	Organization City	Organization County	Total Grant Amount Committed	Committed Fiscal Year	Amount Disbursed in FY 2022
Stratus Technology Group, LLC	Interactive Simulation Emergency Response Training (InSERT)	Spencer	ROWAN	\$11,700.00	2022	\$0.00
Telli Technologies	In-situ Instrumentation to Predict Performance of Emerging Power Electronics Converters in Grid Applications	Charlotte	MECKLENBURG	\$6,000.00	2022	\$6,000.00
Third Floor Materials, Inc.	Epsilon-near-zero Based FAST Filter	Durham	DURHAM	\$6,000.00	2022	\$6,000.00
Triangle Environmental Health Initiative	A compact, modular wastewater treatment system for non-potable reuse of household greywater	Durham	DURHAM	\$6,000.00	2022	\$6,000.00
Triangle Precision Diagnostics, Inc.	A Breast Cancer Immunity Score Kit as Companion Biomarker Test Using RT-qPCR and RNA-seq	RTP	DURHAM	\$5,350.00	2022	\$0.00
United Protective Technologies, LLC	Atomic Deposition Enhanced Precision Tooling (ADEPT) for Electrochemical Machining	Locust	STANLY	\$6,814.39	2022	\$6,814.39
Venti, LLC	Intelipod CWA Detector System	New Bern	CRAVEN	\$12,000.00	2022	\$12,000.00
VetOncoDx, LLC	Early Cancer Detection in Companion Animals Using Urine Samples	Raleigh	WAKE	\$6,000.00	2022	\$6,000.00
Vidterra, LLC	Low-Power Covert Video Sensor with Onboard Machine Learning Facial Recognition	Wilmington	NEW HANOVER	\$6,000.00	2022	\$0.00

Organization Legal Name	Project Title	Organization City	Organization County	Total Grant Amount Committed	Committed Fiscal Year	Amount Disbursed in FY 2022
Vigilant Cyber Systems, Inc.	Integrated & Automated Testing System (IATS)	Mount Airy	SURRY	\$12,000.00	2022	\$12,000.00
Zymeron Corporation	Enhanced Photodynamic Inactivation against Drug-Resistant Bacterial Infections	Durham	DURHAM	\$6,000.00	2022	\$6,000.00
<b>TOTAL</b>				<b>\$308,143.27</b>		<b>\$175,811.75</b>

*NOTE: Committed and disbursed amounts in the table above differ because applications were received at end of the solicitation period, so disbursement will take place in FY 2023. At the time of this report, only three awards remain with outstanding payments.*

**EDUCATION AND OUTREACH**

In Session 2021, G.S. 143B-437.80 was modified to include up to 10% of funds allocated to education and outreach component. To date, \$50,000 has been obligated, and there is currently an active Request for Quotes to solicit vendors to provide these services.

**CONCLUSION**

A handful of innovative states, including North Carolina, have seen the value of leveraging federal SBIR/STTR funds with State support. North Carolina’s entrepreneurial community has enthusiastically heralded the One North Carolina Small Business Program’s creation for its impact on growing the state’s entrepreneurial economy, and for the fact that it reflects a substantial recognition by lawmakers of the importance of innovation and entrepreneurship to the economic health of the state. As the impact measures above indicate, the Program enables North Carolina’s small businesses to generate the kinds of innovation critical for making the state a leader in the global economy.

**Table 3: FY 2022 One North Carolina Small Business Program Balance Sheet**

<b>APPROPRIATIONS &amp; CARRIED-FORWARD FUNDS</b>	
FY2022 Appropriations	\$5,000,000.00
Funds Carried Forward from Previous Years	\$18,232.87
<b>Total</b>	<b>\$5,018,232.87</b>
<b>EXPENSES</b>	
Matching Funds Grant Program	\$4,660,089.60
Incentive Funds Grant Program	\$308,143.27
Education and Outreach	\$50,000.00
<b>Total</b>	<b>\$5,018,232.87</b>