One North Carolina Small Business Awards
July 1, 2024 – June 30, 2025

Under the FY 2025 Matching Program Solicitation, companies were eligible for Matching awards equal to 50% of the federal SBIR/STTR award, up to $75,000.

- **Aegis Power Systems, Inc., of Murphy:** $75,000 to develop technology that will yield high-power inverters for tactical vehicles at greater power density than currently available. This project will determine the technology's ability to withstand tough environments for use in the military and electrical vehicle markets. This SBIR project is sponsored by the Army in the U.S. Department of Defense.
- **Amissa Inc., of Charlotte:** $75,000 to assess the relationship between smartwatch health data and cognitive function in older adults with and without preclinical Alzheimer's disease. This work will improve understanding of the earliest stage of Alzheimer's disease and develop low-cost behavioral interventions for aging adults. This SBIR project is sponsored by the National Institutes of Health in the U.S. Department of Health and Human Services.
- **Arclet, of Asheville:** $75,000 to develop and assess a health communication software that uses AI to tailor health messaging to cultural, linguistic, and contextual factors in communities. This platform will help health agencies, universities, and community-based organizations use fewer personnel to quickly disseminate accurate health messaging to specific audiences. This SBIR project is sponsored by the National Science Foundation.
- **Atlantic Fish Co., of Raleigh:** $75,000 to develop a hybrid fish nugget for a more environmentally sustainable seafood product. Using a combination of cultivated fish muscle tissue and plant-based ingredients, this hybrid fish nugget will be comparable to the consistency of fish nuggets currently on the market. This SBIR project is sponsored by the U.S. Department of Agriculture.
- **AxNano, LLC, of Greensboro:** $50,000 to develop and test a method to remove harmful Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS) from wastewater sludge, also known as biosolids. The system will decrease the amount of PFAS in biosolids applied to fields or disposed of in landfills, thereby decreasing the amount of toxic PFAS seeping into soil and groundwater. This SBIR project is sponsored by the U.S. Environmental Protection Agency.
- **Blue Ridge Research and Consulting, LLC, of Asheville:** $48,043 to quantify and identify sources of vibration noise and cabin noise in electric vertical takeoff and landing (eVTOL) aircraft. This project will accelerate the development of the Urban Air Mobility (UAM) industry. This STTR project is sponsored by the National Aeronautics and Space Administration (NASA).
- **C3I Tech, LLC, of High Point:** $75,000 to develop a secure login system for military application that uses a combination of fingerprint scans, special tap patterns, and generative AI. This will create a more secure sign-in option for devices when conditions do not allow for face ID or fingerprint ID. This SBIR project is sponsored by the Army in the U.S. Department of Defense.

- **Calla Health Foundation, of Durham:** $75,000 to develop an at-home diagnostic scope that can increase accessibility to women's health screenings. The scope will provide at-home cervical cancer screening while still utilizing trained healthcare workers and a virtual support system. This SBIR project is sponsored by the National Institutes of Health at the U.S. Department of Health and Human Services.
- **Cerulean Scientific Inc., of Durham:** $75,000 to investigate tethered liquid perfluorocarbon coatings preventing blockages, clots, and harmful bacterial growth in or on artificial blood vessels. This work aims to decrease failure rates of artificial blood vessels, which currently have a first-year failure rate of 20 – 50%. This SBIR project is sponsored by the National Institutes of Health in the U.S. Department of Health and Human Services.
- **Cosmic Eats, Inc., of Cary:** $75,000 to investigate a water sterilization technology in commercial mushroom cultivation. This work aims to reduce labor, prevent contamination, and boost quality for mushroom production while providing a sustainable method of water delivery. This SBIR project is sponsored by the National Science Foundation.
- **CubeCab Co., of Greenville:** $69,136 to refine previously developed miniature nuclear thermal rocket designs through modeling and simulation. This effort will allow for future construction of a physical prototype of a safe, reusable thermal nuclear rocket that would decrease the cost of rocket-powered travel. This STTR project is sponsored by the U.S. Department of Energy.
- **Data Driven Bioscience Inc., of Durham:** $75,000 to develop a method for rapid, comprehensive diagnostic testing for blood cancers. Over 175,000 individuals in the U.S. are diagnosed with blood cancers annually, and this new method would allow for a more cost- and time-efficient method for diagnoses. This SBIR project is sponsored by the National Institutes of Health in the U.S. Department of Health and Human Services.
- **DelAQUA Pharmaceuticals, Inc., of Chapel Hill:** $75,000 to develop a polymer that enhances the ability of drugs to dissolve, thereby increasing drug efficacy. This polymer technology could enhance current drugs on the market by allowing for lower dosages and new drug development. This SBIR project is sponsored by the National Science Foundation.
- **Dignify Therapeutics, LLC., of Research Triangle Park:** $75,000 to investigate novel pharmaceutical agents to treat fecal incontinence. Compared to current treatments, these pharmaceutical agents would have fewer side effects. This SBIR project is sponsored by the National Institutes of Health of the U.S. Department of Health and Human Services.
- **EMP Consulting, of Taylorsville:** $69,908.50 to model medical support in the U.S. Marine Corps to identify the impacts of newer warfighting concepts on the medical system (i.e., medical supply consumption, blood usage, and enroute care). These models could also be used for public health emergencies and national preparedness situations. This SBIR project is sponsored by the Marine Corps in the U.S. Department of Defense.
- **Equiti Foods LLC, of Chapel Hill:** $75,000 to implement a *Food is Medicine* program that creates medically tailored meals to decrease food and health disparities. Through this program, communities will gain access to healthy food options to help decrease the amount of chronic and nutrition-related diseases. This STTR project is sponsored by the National Institutes of Health in the U.S. Department of Health and Human Services.

- **EydisBio Inc., of Durham:** $75,000 to investigate chemical compounds for treatment of Alzheimer's disease, which currently lacks effective therapeutic options. This work aims to discover an oral drug as a potential treatment option to slow or prevent disease progression. This STTR project is sponsored by the National Institutes of Health in the U.S. Department of Health and Human Services.
- **Fathom Science Inc., of Raleigh:** $48,662 to develop an environmental situational intelligence system to modernize naval operations. The system will provide comprehensive, real-time environmental and ocean forecast information directly to shipboard systems to improve safety and decision making. This STTR project is sponsored by the Navy within the U.S. Department of Defense.
- **ForagR Medicines, of Durham:** $75,000 to develop a drug discovery platform that targets disease-related proteins that do not have treatment options, like those in Alzheimer's disease. Diseases are often treated by targeting specific proteins, and this platform will allow for a cost-efficient way of quickly identifying potential drugs for these proteins. This SBIR project is sponsored by the National Science Foundation.
- **ForesightCares Inc., of Matthews:** $75,000 to test and improve a smartphone app that helps caregivers check older adults for fall risks using video and AI. The app will allow for at-home fall screenings, increasing accessibility for adults that do not have easy access to a physician. This SBIR project is sponsored by the National Institutes of Health in the U.S. Department of Health and Human Services.
- **GreenLight Biosciences, Inc., of Durham:** $75,000 to develop a seed treatment that utilizes the plant's own defense system to decrease fungal growth and early death of soybean seeds. This approach would prevent early death of crops and avoid the need for fungicide treatment. This SBIR project is sponsored by the U.S. Department of Agriculture.
- **inSoma Bio, Inc., of Durham:** $75,000 to develop an off-the-shelf product that can replicate the results of fat grafting without the need for surgical tissue harvesting via liposuction. This would provide a safer and cost-effective in-office procedure and decrease the need for patients to undergo reconstructive surgery. This SBIR project is sponsored by the National Institutes of Health in the U.S. Department of Health and Human Services.
- **Junipero Therapeutics, Inc., of Kannapolis:** $75,000 to develop a novel technology that can edit DNA and DNA-associated proteins in difficult to treat and deadly diseases. This technology would allow for safer, more effective, more affordable treatments for difficult to manage genetic disorders with few or no existing treatment options. This SBIR project is sponsored by the National Science Foundation.
- **LUMEOVA, Inc., of Raleigh:** $73,102 to perform a detailed design and feasibility study of a new long distance communication system for the military. Beyond military use, this technology could enhance AI computing, data centers, and 5G/6G network performance. This SBIR project is sponsored by the Navy in the U.S. Department of Defense.
- **mHealth Systems, Inc., of Mint Hill:** $71,345 to develop and refine a smartphone app that addresses alcohol and cannabis consumption and abuse by college students. The app addresses gaps in training at colleges and universities without the need for extra institutional personnel. This STTR project is sponsored by the National Institutes of Health in the U.S. Department of Health and Human Services.

- **Mucommune, LLC, of Durham:** $75,000 to develop a safe and effective intervention for protecting against vaginal HIV transmission. This work aims to develop a capsule that releases treatment over a 30-day period to allow for self-managed protection and treatment rather than injections. This SBIR project is sponsored by the National Institutes of Health in the U.S. Department of Health and Human Services.
- **NeuroGt, Inc., of Chapel Hill:** $75,000 to develop and optimize gene therapy treatment for a rare, deadly, and currently untreatable disease, mucopolysaccharides IIIB. This new gene therapy treatment option aims to improve the quality of life of patients and their families offering full-time care. This SBIR project is sponsored by the National Institutes of Health in the U.S. Department of Health and Human Services.
- **OncoTAb, Inc., of Marvin:** $75,000 to evaluate how cancer cells and nearby healthy cells are impacted by different types of radioactive drugs. Utilizing a cost-effective, mathematical approach, this work aims to lead to an optimal design of a radiopharmaceutical to target pancreatic cancer. This STTR project is sponsored by the National Institutes of Health in the U.S. Department of Health and Human Services.
- **Oncurie, Inc., of Raleigh:** $75,000 to investigate a compound for targeted imaging and therapy of ovarian cancer. This targeted imaging and therapy aims to improve ovarian cancer survival rates through improved diagnoses and specificity of treatment. This STTR project is sponsored by the National Institutes of Health in the U.S. Department of Health and Human Services.
- **OsRostrum Inc., of Graham:** $62,500 to develop an automated phenotyping platform to measure traits of livestock to inform breeding and management decisions. This platform will encompass a low-cost imaging system to capture a broad range of structural traits. This will provide insights into the health of cattle, with the goal of preventing large cattle loss from disease. This SBIR project is sponsored by the U.S. Department of Agriculture.
- **Piximune, Inc., of Durham:** $75,000 to investigate a treatment option for retinal degeneration, the leading cause of visual impairment and blindness in people under 60 years of age. This treatment option aims to eliminate toxic cell debris from the disease to slow disease progression. This SBIR project is sponsored by the National Institutes of Health in the U.S. Department of Health and Human Services.
- **Predictive, LLC, of Raleigh:** $75,000 to develop a web application as a centralized resource for organizing drug-target-infectious disease associations and novel infectious disease drug candidates. This application will help researchers more easily discover new drug targets and reuse existing medications in different applications. This SBIR project is sponsored by the National Institutes of Health in the Department of Health and Human Services.
- **Prevention Strategies, LLC, of Greensboro:** $75,000 to develop and test an online alcohol prevention game for 13–15-year-olds. The game will simulate the process of finding new friends and engaging in activities that support or detract from one's life goal to help teens understand how alcohol use may detract from their goals. This SBIR project is sponsored by the National Institutes of Health in the U.S. Department of Health and Human Services.

- **Resonantia Diagnostics, Inc., of Durham:** $75,000 to develop a diagnostic platform that can rapidly identify a pathogen and its antimicrobial susceptibility. This development aims to decrease patients' diagnoses and treatment time from days to hours and decrease the amount of general antibiotics prescribed before knowing the type of bacterial infection. This STTR project is sponsored by the National Science Foundation.
- **Secmation, LLC, of Cary:** $69,919.50 to develop and test a new computing system that uses small, powerful microelectronic devices to improve security and performance on naval ships. This system will replace bulky equipment with compact models, making shipboard computing faster, safer, and easier to upgrade and maintain. This SBIR project is sponsored by the Navy in the U.S. Department of Defense.
- **Sediment, of Greensboro:** $75,000 to develop a handheld camera-based system equipped with machine learning to enable more time- and cost-effective measurements of costal sediment size. The technology would enable better monitoring of coastal erosion and prediction of storm impacts. This SBIR project is sponsored by the National Oceanic & Atmospheric Administration (NOAA) in the U.S. Department of Commerce.
- **SimplusDx, Inc., of Durham:** $75,000 to develop and characterize a point-of-care testing platform to enable rapid, bedside, or at-home measurement of tacrolimus, a critical immunosuppressive drug used in organ transplants. This new platform will reduce the need for frequent clinic visits and provide rapid results. This SBIR project is sponsored by the National Institutes of Health in the U.S. Department of Health and Human Services.
- **Smart Material Solutions, LLC, of Raleigh:** $75,000 to optimize high efficiency solar panels to increase power output. This technology will optimize space-based solar panels to help keep up with power needs of space-based projects. This SBIR project is being sponsored by the Air Force in the U.S. Department of Defense.
- **SmartAirway, of Fayetteville:** $75,000 to design and test a steerable, articulating stylet for easier, safer endotracheal intubation. This new device will be able to be adjusted easily in multiple directions, improving accuracy and decreasing serious injuries or fatalities. This SBIR project is designed by the National Institutes of Health in the U.S. Department of Health and Human Services.
- **Social Cascade, Inc., of Raleigh:** $75,000 to deliver patient education via artificial intelligence (AI) and machine learning to rural communities to reduce respiratory syncytial virus (RSV) infections. The program will predict RSV infection rates and ensure a tailored health message is delivered to the community quickly. This SBIR project is sponsored by the National Institutes of Health in the U.S. Department of Health and Human Services.
- **Solar Unsoiled, of Durham:** $75,000 to develop a predictive model for soiling of solar panels (when solar panels get dirty and are no longer as efficient). This work aims to predict the impacts of precipitation, pollutants, fungal growth, and pollen on soiling of solar panels, enabling the selection of sites where solar panels can be most efficient. This SBIR project is sponsored by the U.S. Department of Energy.
- **SonoVoice, Inc., of Raleigh:** $75,000 to develop an innovative voice evaluation technology to improve diagnosis and treatment of voice disorders. This system will increase the precision with which a person's vocal function ability can be measured using non-invasive tools and will provide a more affordable, portable, and accessible tool. This STTR project is sponsored by the National Science Foundation.

- **Sorbenta, Inc., of Chapel Hill:** $75,000 to investigate harmful per- and poly-fluoroalkyl substances (PFAS) removal from water. This PFAS removal system has a larger capacity than commercial options currently available and can be regenerated for continual PFAS removal. This STTR project is sponsored by the National Institutes of Health in the U.S. Department of Health and Human Services.
- **Susteon Inc., of Morrisville:** $75,000 to design an on-board carbon capture process using a novel high-performance solvent for low energy, lightweight, and practical carbon capture on marine vessels. This work aims to improve carbon capture and decrease carbon dioxide released into the environment from boats. This SBIR project is sponsored by the U.S. Department of Energy.
- **Third Floor Materials Inc., of Durham:** $53,919.30 to design a new kind of hyperspectral camera for use in manned and unmanned aircraft systems. This work will enable a new class of state-of-the-art cameras capable of high refresh rate video at much lower cost than current systems. This STTR project is sponsored by the Air Force in the U.S. Department of Defense.
- **TransChromix, of Chapel Hill:** $75,000 to study a protein in the brain, G9a, and its impact on progression of Alzheimer's disease. With few effective treatment options for Alzheimer's disease, this work will explore an alternative treatment strategy. This STTR project is sponsored by The National Institutes of Health in the U.S. Department of Health and Human Services.
- **Triangle Environmental Health Initiative, of Durham:** $75,000 to develop and test selective ion separation and recovery systems for wastewater treatment to remove contaminants that are byproducts from industrial processes. This method of wastewater treatment is economical, low-energy, and enables the recovery of valuable byproducts that can generate revenue. This SBIR project is sponsored by the National Science Foundation.
- **Tripill Biotechnology, Corp., of Chapel Hill:** $75,000 to assess the therapeutic potential of a new drug that targets prostate cells through detection of a special marker, the prostate-specific membrane antigen (PSMA). This intent is to improve prostate cancer management while minimizing harmful effects on the salivary glands. This STTR project is sponsored by the National Institutes of Health in the U.S. Department of Health and Human Services.
- **Vigilant Cyber Systems, Inc., of Mount Airy:** $69,998 to design and develop automated tactical effectiveness service. This will allow military teams to quickly understand how well their electromagnetic equipment (i.e. jammers, sensors) are working on missions. This SBIR project is sponsored by the Navy in the U.S. Department of Defense.
- **Vindhya Data Science Inc., of Morrisville:** $75,000 to develop a machine-learning based platform for the analysis of a biomarker in kidney cancer. This work aims to provide a low-cost, time-efficient way of searching for biomarkers in kidney cancer to quickly optimize treatment plans for patients. This SBIR project is sponsored by the National Institutes of Health in the U.S. Department of Health and Human Services.
- **Vulcan Elements Inc., of Raleigh:** $75,000 to develop optimized heat resistance and performance coatings for rare earth magnets used in the Army's electric motors. Coating the rare earth magnets allows vehicles to achieve higher power and torque performance while maintaining heat-resistance. This SBIR project is sponsored by the Army in the U.S. Department of Defense. *(Continues on Next Page)*

One North Carolina Small Business Program Incentive Grant Awardees, FY 2025

Under the FY 2025 Incentive Program Solicitation, companies were eligible for Incentive awards equal to 50% (companies in Tier 3 counties) or 75% (companies in Tier 1 or 2 counties) of eligible expenses incurred in composing their SBIR/STTR applications, up to $12,000.

- **Adjutor Technologies LLC, of Canton:** $12,000
- **Advanced Materials Manufacturing, of Raleigh:** $8,246.43
- **Aegis Power Systems, of Murphy:** $11,164.99
- **Algaen Corporation, of Winston-Salem:** $6,691.95
- **Applied Research, of Cary:** $12,000
- **Aris, Inc., of Greensboro:** $11,550
- **Atrevida Science, of Charlotte:** $3,904.20
- **AxNano, of Greensboro:** $9,374.32
- **BioFluids Medicals, LLC, of Winston-Salem:** $2,642.18
- **BioMojo, of Cary:** $12,000
- **Brilliant Aerospace, of Greensboro:** $12,000
- **Calla Health, of Durham:** $12,000
- **Cerulean Scientific, of Durham:** $12,000
- **Converter Source, of Arden:** $11,169.02
- **Coprata, Inc., of Durham:** $6,000
- **Daheco Engines & Energy, of Valdese:** $595.50
- **Deep Creek Pharma, LLC, of Yadkinville:** $1,875.84
- **DF Clinical, of Cary:** $3,000
- **Elemance, of Winston-Salem:** $3,845
- **Eva Solutions, of Apex:** $2,778.13
- **ForesightCares, of Matthews:** $12,000
- **Geometric Data Analytics, of Durham:** $3,217.50
- **Greenlifetech, of Banner Elk:** $10,312.50
- **HireBrain Corporation, of Huntersville:** $12,000
- **IngateyGen, of Durham:** $7,619.40
- **Inhalon Biopharma, of Durham:** $7,982.69
- **iSimcha LLC, of Durham:** $5,466
- **Mucommune LLC, of Durham:** $5,130.91
- **MuriPhys, LLC, of Durham:** $8,818.48
- **Mykare, Inc., of Chapel Hill:** $6,000
- **NC Solar Inverters LLC, of Cary:** $7,000
- **NOBiotics LLC, of Raleigh:** $10,498.80
- **Nuream, Inc., of Wilmington:** $12,000
- **Osrostrum Inc., of Graham:** $7,395.00
- **Piximune, Inc., of Durham:** $7,000
- **Radiant DX, of Durham:** $8,000
- **Reselute, Inc., of Durham:** $10,646.60
- **Resonantia Diagnostics, of Durham:** $5,796.25

- **Setter Research, of Greensboro:** $2,742
- **Smart Girls HQ LLC, of Charlotte:** $6,189.60
- **SmartTrak LLC, of Holly Springs:** $9,000
- **Social Cascade, Inc., of Raleigh:** $10,109.23
- **Soelect, Inc., of Greensboro:** $10,427.79
- **Swabbot Solutions, of Raleigh:** $7,000
- **Triangle Environmental Health Initiative, of Durham:** $8,336.70
- **UPT, of Locust:** $5,540.01
- **Vigilant Cyber Security, of Mount Airy:** $12,000
- **Vindhya Data Science, of Morrisville:** $12,000
- **Virati, of Brasstown:** $12,000
- **Vitality Robotics, of Durham:** $12,000
- **Zymeron Corporation, of Durham:** $9,796.44