

Campus and Partners	Project Title	Funding Request	Project Summary
<p>ASU & K-12 Schools</p>	<p>Blue Ridge Science Education and Research Outreach Consortium</p>	<p>\$1,000,000.00</p>	<p>Working in partnership with the Blue-Ridge Science Education and Research Outreach Consortium, Appalachian State University seeks to establish observatory-based and mobile science outreach facilities that will provide high-quality science education and research opportunities for students, teachers, and university faculty across all educational levels as well as a broad range of the public. The Blue-Ridge Science Education and Research Outreach Consortium (BR SEROC) consists of observatories affiliated with the UNC Asheville (UNCA) Pisgah Astronomical Research and Science Education Center (PARSEC) and the Appalachian State University (ASU) Dark Sky Observatory (DSO) and Visitor Center. Western North Carolina (WNC) is a technologically underserved region that will be supported by this consortium. The consortium will address STEM needs of the entire Blue Ridge region which contains a growing student population in particular need of enhanced science opportunities. At a time when the proper scientific education of the American public is critical for the economic future of the country, this Consortium brings significant and high quality science education resources, programs, and research to the Blue Ridge Region and engaging, but informal, science education to travelers on the Blue Ridge Parkway.</p>
<p>UNCW NCSU UNCCH</p>	<p>North Carolina Coastal Ocean Observing Program</p>	<p>\$6,000,000.00</p>	<p>The North Carolina coastal zone supports a range of essential economic activities, including coastal development, shipping and commerce, fishing, boating and tourism. It is also vulnerable to a variety of natural and man-made hazards, which regularly threaten resources, property and lives. Supported by Federal and non-federal sources, several UNC-system institutions (e.g. UNCW, UNC-CH, and NCSU) have established functioning sub-regional observational programs. The North Carolina collaborative effort will build upon existing observing programs (i.e. NCCOOS, CORMP, Caro-COOPS) to establish a coordinated, statewide, observation and information system for North Carolina coastline. The proposed venture provides a venue for enhancing inter-institutional cooperation, public outreach, and engagement of partners, stakeholders, and end-users at the state level. Further, these activities will foster private sector partnerships resulting in economic growth in North Carolina. This program will: 1) maintain existing observing assets 2) coordinate observing activities in North Carolina 3) engage additional UNC-system institutions, stakeholders, government, and private sector.</p>
<p>NCSU & Red Hat, IBM</p>	<p>Secure Open Source Institute</p>	<p>\$4,000,000.00</p>	<p>The Secure Open Systems Institute (SOSI), located on NCSU's Centennial Campus, is focused on making open source systems more secure, trusted and efficient through research, developing automated testing tools and providing qualification services. SOSI will accelerate the creation and growth of high tech industries in North Carolina and beyond by providing a centralized repository of research results, testing tools and qualification services. SOSI will also significantly contribute to strengthening mission critical information technology infrastructures. Open source accelerates development of new products and services by enabling functions quickly with great flexibility, higher quality at less cost. The Linux open source operating system market alone will grow 36% to become a \$35 billion market by 2008. More than 160 governments worldwide have already invested over \$2 Billion, and many corporations use open source as a major business strategy. IBM committed to spend \$1 billion in 2003 and continues to spend equitable amounts. SOSI is partnering with leading open source companies (e.g., IBM, Red Hat), government agencies (e.g., DARPA, NSA), university researchers and NCTA, MCNC.</p>

<p>NCAT & North Carolina Zoo</p>	<p>Alternate Energy Center</p>	<p>\$2,500,000.00</p>	<p>The Alternate Energy Center will conduct exploratory fundamental and applied research on biomass, bioenergy, and biomaterials in partnership with the North Carolina Zoo in Asheboro. The Center will provide viable, alternative energy sources for rural areas in North Carolina. Further, the Center will establish a network of multi-interdisciplinary researchers to conduct collaborative research in alternative energy; identify opportunities and develop market technologies for biofuel, bioenergy, and biomaterial production; educate the public and promote the use of bioproducts; and incorporate bio-based technology into existing courses and curricula at the University. Specifically, the Center will develop an environmentally friendly pyrolytic gasification system to convert mixed feedstock of municipal solid wastes (MSW), yard trimmings, and wood residues to syngas for fuel. Syngas can be further separated and reformed to hydrogen fuel. The project will focus on developing an efficient process for feedstock preparation and syngas generation and clean up (emissions control). The environmental, economic, and social impacts of this project are numerous.</p>
<p>UNCA, UNCC & DHS</p>	<p>The VisualGRID</p>	<p>\$2,500,000.00</p>	<p>UNC Asheville and UNC Charlotte are establishing an institute to bring together the resources and intellectual strengths of three research centers at the two institutions to leverage economic development of a unique high-performance computing resource, the Visualization Computing Grid (VisualGRID). The VisualGRID will take advantage of the Charlotte Ring, the new high-bandwidth connectivity between Charlotte and Western North Carolina, and will put Western North Carolina at the forefront of visualization, simulation, and analysis. A powerful resource for business, government, and education, it will be a unique tool enabling business and government to look at visual portrayals of hugely complex data patterns and model behavioral patterns associated with simulation, modeling, and data acquisition on a large scale, with particular focus in the areas of energy infrastructure, disaster analysis and mitigation, natural resource valuation, environmental sustainability and security, and atmospheric science. UNC Charlotte has been selected as one of five Regional Visualization and Analytics Centers that will assist the Environmental Protection Agency and Department of Homeland Security in developing visual analytics tools to identify and thwart terrorist threats.</p>
<p>ECSU & K-12 schools</p>	<p>Viking Arts Mobile Program</p>	<p>\$953,111.00</p>	<p>The Viking Mobile Arts Unit will enhance ECSU's existing Spring Arts Festival by adding a portable arts classroom and a program including musical performances, visual art exhibitions, story telling, etc. to be transported to rural North Carolina counties on a mobile stage to benefit K-12 students and others who have limited access to cultural exploration. A summer camp will also be offered at ECSU under the project to address the issue of limited access by providing 100 middle school and high school students with an opportunity to engage in cultural exploration in a college setting.</p>
<p>ECU & Duke, Patterson School, Johnson & Johnson</p>	<p>Metabolic Institute</p>	<p>\$2,200,000.00</p>	<p>The Metabolic Institute is a research facility founded by the UNC Board of Governors to address the most serious diseases confronting eastern NC including diabetes, obesity, and hypertension. ECU scientists are international leaders in the study of metabolic diseases. The role of the Institute is to conduct research, educate health care professionals, and provide up-to-date care. The Institute will translate advances in research into improved patient care, recruit investigators who will attract grants, educate scientists and technical personnel at all levels and support the training of scientists at community college and public school levels, recruit students into the health care and scientific professions, and promote industrial development and employment through the development of patents, products, and spin-off companies that will contribute to economic development. The Institute has strong partnerships with others: Duke University, Northeastern University in Boston, U of Berlin, Johnson & Johnson labs, Camp Timber Creek and Patterson School in Lenoir, NC, NIH, American Association for Bariatric Surgery, and others. FY 2008 funding will allow the Institute to upgrade equipment.</p>

<p>FSU, UNCP</p>	<p>Establishing a Regional Electron Microprobe Facility</p>	<p>\$1,375,000.00</p>	<p>Fayetteville State and UNC Pembroke seek funding for an electron microprobe. The microprobe is commonly used for igneous, metamorphic, and experimental petrology as well as mineral investigations and geochronology. In addition to rocks and sediments, faculty intend to conduct analyses of metals and alloys, thin films, ceramics, composites, optical fibers, and other artificial materials. More unusual items, including human teeth and archaeological artifacts, have also been analyzed with the microprobe. The lab will have the capability of analyzing artificial materials for various purposes (quality control, product testing, characterization, research and development) for commercial or industrial sectors. External users can come from numerous industries and research fields (e.g., semiconductors, medical technology, geological exploration, electronics and photonics, chemical and mechanical engineering). The centerpiece of a regional analytical facility housed at Fayetteville State University, the microprobe facility will be run by a consortium of faculty members from FSU and UNCP.</p>
<p>NCSA & K-12 schools</p>	<p>NCSA K-12 Outreach - Open Dream Ensemble</p>	<p>\$244,000.00</p>	<p>The Thomas S. Kenan Institute for the Arts at the North Carolina School of the Arts seeks federal funding to increase its K-12 outreach and educational programming through the Open Dream Ensemble (ODE), a collaborative performing troupe created in 2005. ODE performances are designed for the NC public schools, the primary partner in this project. In its first two years ODE touched over 12,000 students in 16 counties. Working with the NC Department of Public Instruction, the requested federal funding would be used to increase outreach to over 20,000 students per year targeting rural and low income counties otherwise not able to afford to participate. In addition ODE is working with Linda Bamford, Arts Education Director for the NC Department of Cultural Resources toward inclusion in the state-wide touring program. ODE Arts-in-education residencies have been designed and tested for K-8 students and teacher support materials have been developed in line with the North Carolina Standard Course of Study. Based on the positive response of the public schools and demand for additional performances the goal is to expand the season to 36 weeks.</p>
<p>UNCC & CPCC</p>	<p>Diversity in Nursing Education: A Plan for Nursing's Future</p>	<p>\$500,000.00</p>	<p>The Diversity in Nursing Education demonstration project (Central Piedmont Community College and UNC Charlotte) aims to increase the number of minority nursing educators to serve as role models in the training of minority nurses. There is a direct link between poorer health outcomes for minorities and the shortage of minority health care providers, and there is substantial benefit from a health workforce that is culturally sensitive and focused on patient care. African Americans represent 22 percent of the population in North Carolina, but only nine percent of registered nurses. This program will address the diminution of minority students at each step of the academic ladder by developing a Nursing Fellow program for minority students from both high schools and the community college, with an articulation agreement that allows students prepared at the associate degree level to seamlessly continue their training and achieve a Master's degree in nursing education. The program will provide on-site and shared academic and career advising for students, boot camps for students at both CPCC and UNC Charlotte, mentoring by successful minority nurses, and childcare.</p>
<p>UNC-CH & NCCCS, Abbott Labs</p>	<p>The Kidney Care Prevention Program</p>	<p>\$3,500,000.00</p>	<p>The Kidney Care Prevention Program (KCPP), a collaborative demonstration project of the UNC Kidney Center, the NC Community College System, and Abbott Labs, will offer an aggressive combination of community-based, targeted educational outreach, free screenings, and sustained, personalized disease management by trained kidney disease care educators, to reduce the morbidity, mortality, and costs associated with renal disease. The KCPP partnership will provide a 2-stage assault on the epidemic of kidney disease: 1) 3 fully-equipped mobile outreach units (1 each in eastern, central, and western NC) will provide screening and intervention for citizens at risk for developing chronic kidney disease; 2) a new curriculum for allied health</p>

			students, implemented at all 58 NC community colleges, will provide certification for kidney care educators, community-based health professionals with expertise in managing patients and populations at high risk of developing kidney disease. In 2003, approximately 325,000 Americans were being treated for end-stage kidney disease, resulting in \$18.1 billion in Medicare costs. North Carolina ranks 9th in the U.S. for the highest prevalence of end-stage kidney disease.
WSSU & Wake Forest, Johns Hopkins and others	Center of Excellence for the Elimination of Health Disparities	\$1,300,000.00	In its 2003 Eliminating Health Disparities -- Call to Action, the NC Department of Health and Human Services cited health statistics that document “persisting racial and ethnic disparities in health status for almost all conditions.” As a response to this Call to Action and given its historical role in developing disparities programs and activities, WSSU recently established a Center of Excellence in Health Disparities. The mission of the Center of Excellence for the Elimination of Health Disparities—an interdisciplinary, multi-institutional, applied health services and research center—is to improve minority health outcomes and eliminate health disparities within the state through research, education, and community outreach activities. The University already has partnerships with UNC-CH, UNCG, NCCU, Wake Forest University Baptist Medical Center, Novant Medical Center, and Johns Hopkins University in health disparities areas. The University has also allocated funds for operational expenses including communication, travel, supplies, and funds to assist with grant writing. The University has also provided space, technology, and staff development.
UNC-CH, NCSU & Dole Food	Kannapolis: ARS Nutrition Center	\$1,000,000	The University of North Carolina at Chapel Hill Nutrition Research Institute and the North Carolina State University Institute for Fruit and Vegetable Science propose the creation of a new United States Department of Agriculture Human Nutrition Center. This new Center will focus on using cutting edge genomic, proteomic and metabolomic biotechnology to develop innovative approaches to designing healthier agricultural products and to understanding the role of diet and activity in normal brain development, preventing cancer and preventing obesity. Further, the Center will evaluate how nutrition enhances human health -- using individual variations in metabolism to develop custom solutions that target individual susceptibilities and differences.
UNC-CH, AHEC, Local Agencies & Physicians	Kannapolis: Health on Wheels	\$1,500,000	UNC Chapel Hill’s <i>Health on Wheels (HOW)</i> program will combat the growing obesity epidemic by moving the prevention and treatment of obesity out of hospitals and clinics and into communities across the state. Working in partnership with the Nutrition Research Institute (NRI) in Kannapolis, <i>HOW</i> physicians and nutritionists will use mobile consulting centers to perform diagnostic testing; disseminate obesity prevention and treatment tools and programs to communities, families, and local clinical practices; and provide obesity treatment plans without requiring patients to travel to major medical centers. <i>HOW</i> units will work closely with local physicians, Area Health Education Centers, and other local agencies to bring the most recent advances in obesity prevention and treatment directly to clinicians and their patients. Federal funds will be used to purchase and equip three mobile <i>HOW</i> units; to provide technical training on the operation of the <i>HOW</i> mobile unit equipment; and to support experts whose role will be to provide diagnoses and treatment plans.
	Total Request	\$27,072,111.00	