

**Appalachian State University (ASU) – Human Performance Laboratory.** The mission of the ASU/NCRC Human Performance Laboratory is to investigate the influence of unique plant molecules such as flavonoids on age-related loss of muscle mass, muscle mitochondrial biogenesis and exercise-induced changes in immune function, oxidative stress and inflammation. The laboratory is fully equipped to measure human metabolic responses to varying exercise workloads under specified nutritional conditions.  
<http://www.hles.appstate.edu/areas/ncrc/>

**Duke University – The Duke Translational Medicine Institute** focuses on speeding the movement of new therapies from the research laboratory to the patient. The Institute strives to streamline the process for getting diagnostic technologies, prevention efforts and therapies into the hands of physicians and other healthcare providers in a timely, cost effective manner. As part of this focus, the University is leading the \$35 million MURDOCK Study, a longitudinal molecular epidemiology study based in Cabarrus County and Kannapolis, NC which has the potential to revolutionize healthcare by finding ways to match treatment to a patient's genetic profile. [www.murdock-study.org](http://www.murdock-study.org).

**NC A&T State University – NC A&T State University's Center of Excellence for Post Harvest Technologies (CEPHT)** conducts cutting-edge research in post harvest technologies and food science. CEPHT's goal is to develop multidisciplinary programs focused on post harvest technologies including research pertaining to processing, preservation, consumer research, recovery of health promoting food components, food safety issues, storage stability and quality, and value-added product development for food and non-food uses.  
[www.ag.ncat.edu](http://www.ag.ncat.edu)

**NC Central University – North Carolina Central University's Nutrition Research Program** conducts groundbreaking work on zebrafish and transgenic mouse models to advance knowledge of human nutrition at the cellular and genetic level. The focus of the program is on tumor angiogenesis and modulation of breast cancer etiology and prevention by nutrition, environmental factors and natural compounds. This program complements and strengthens the metabolomics and genomics focus of the other NCRC partners.  
<http://ariel.acc.nccu.edu/Academics/BBRI>

**NC State University (NCSU) – The NCSU Plants for Human Health Institute** is part of an integrated effort across NCRC to utilize emerging technologies for plant improvement and human health benefits. The role of the Institute is to develop a new generation of fruits and vegetables which are pharmacologically active at dietary levels of intake, and to investigate medicinal plant resources from sources around the globe which may have a place in the future American marketplace. Researchers use advanced scientific tools to gain new insight into cellular processes, and then translate these breakthroughs through genomics and plant breeding into plants with desired traits.

N.C. MarketReady serves as the Cooperative Extension outreach to complement the research conducted by the Plants for Human Health Institute and to ensure the latest research is delivered to North Carolinians. Like all N.C. Cooperative Extension programs, N.C. MarketReady brings practical applications of science-based research to the people of North Carolina. Specifically, our multidisciplinary team builds partnerships and educational resources to enhance the profitability of North Carolina agriculture and promote the consumption of fresh fruits and vegetables. <http://plantsforhumanhealth.ncsu.edu/>

**UNC Chapel Hill** – Using advanced genomic and metabolomic biotechnology, the *UNC Nutrition Research Institute* develops innovative approaches to understanding the role of diet and activity in brain development, cancer prevention, and prevention and treatment of obesity, fetal alcohol syndrome, diabetes and other diseases. The NRI studies individual metabolic variations to develop nutrition based solutions that are targeted to an individual, allowing healthcare professionals to provide patient-specific treatment.

<http://nri.unc.edu/>

**UNC Charlotte** – UNC Charlotte’s *Bioinformatics Research Center (BRC)* defines bioinformatics as the “discovery, development, and application of novel computational technologies to help solve important biological problems.” At NCRC, the Center provides specialized computer systems and software, data management solutions and analysis for academic researchers and biotechnology companies. In this role, BRC offers sophisticated computational support in the design and development of new research and technologies.

<http://www.bioinformatics.uncc.edu/>

**UNC-Greensboro** – The UNC Greensboro (UNCG) *Center for Research Excellence in Bioactive Food Components* at NCRC is a satellite to the UNCG Department of Nutrition, School of Human Environmental Sciences on the UNCG main campus. The focus of the Center’s research is to understand cellular and molecular mechanisms of action in bioactive food components and the molecular targets for these dietary components. The Center also focuses on expanding the fundamental understanding of these components and their benefits to human health and wellness, healthy aging and prevention of diseases such as cancer.

[www.uncg.edu/ntr/ncrc/](http://www.uncg.edu/ntr/ncrc/)

### **NC Research Campus and David H. Murdock Research Institute**

The North Carolina Research Campus (NCRC) is a private-public venture created to foster collaboration and further knowledge in biotechnology, nutrition, agriculture and health. The campus fosters transdisciplinary research among the eight constituent universities and a growing list of industry partners. The vision and funding behind NCRC originated with Mr. David H. Murdock, owner of Dole Foods Company, Inc. The vision is to create a world-class research hub where collaborative science will lead the charge for great discoveries in nutrition, health and biotechnology research. The mission is to improve the health, well-being and longevity of citizens of North Carolina and the world through improved human nutrition, improved plants, better understanding of bioactive food components and personalized medicine.

Efforts are anchored by the *David H. Murdock Research Institute (DHMRI)*, a nonprofit foundation located in the core laboratory building that houses over \$150 million of state-of-the-art scientific equipment for genomics, metabolomics, proteomics, NMR, microscopy, histochemistry, cell culture and transgenics research, including an on-site vivarium.