

What is the University Cancer Research Fund?

A nation-leading investment to stimulate cancer research and reduce North Carolina's leading cause of death. The Fund builds upon the exceptional research base at the University of North Carolina at Chapel Hill and its UNC Lineberger Comprehensive Cancer Center, the state's only public, NCI-designated comprehensive cancer center.

Established in August 2007 by the NC General Assembly, UCRF is one of three synergistic investments in cancer research and treatment, including the N.C. Cancer Hospital and the Imaging Research Building at UNC-Chapel Hill.

UCRF's Goal

To create a nation-leading cancer research effort and to reduce NC's cancer burden. UCRF is accomplishing these goals through:

- **Discovery** to better understand the causes and course of cancer;
- **Innovation** to create new and better ways to prevent, diagnose and treat cancer; and by stimulating
- **Delivery** of improved cancer care, screening and prevention across the state.

The Strategic Plan

UCRF's governing board, the Cancer Research Fund Committee, has identified three areas in which North Carolina can become a nationally-recognized research leader and have significant potential to decrease NC's cancer burden.

- **Understanding Genetics and its Role in Cancer Causation and Treatment:** To discover the genes that predispose families to cancer, and cancer patients to poor treatment outcomes; to investigate the mutant genes in specific cancer subtypes that lead to cancer therapy failure;
- **Developing New Cancer Treatments:** To devise novel therapies targeted to the specific vulnerabilities of treatment resistant cancers; to develop new ways of delivering therapeutic agents to reduce toxic side effects for all patients; and
- **Optimizing NC Cancer Outcomes:** To track the occurrence and treatment of cancer across North Carolina through data systems and large population- and hospital-based studies; to use these data to initiate research aimed at improving community prevention, early detection in the population, and the quality of oncology and survivor care.

Progress: Signature Research Initiatives

UCRF has started or supported strategic research projects and platforms that are distinctive, if not unique, and form the basis for nation-leading cancer research, including:

- **The UNC Health Registry (Survivorship Cohort):** This project will enroll and follow 10,000 cancer patients at UNC and the N.C. Cancer Hospital. Integrating treatment, genetic, biologic, psychosocial and other data, and then following patients to measure their outcomes, the Registry will be an almost unprecedented resource for comprehensive investigation of cancer treatment and outcomes, including quality of life.
- **Integrated Cancer Information and Surveillance System (ICISS):** In this project, UNC is collaborating with the N.C. Central Cancer Registry and major third parties (Medicare, Medicaid, State Employees Health Plan, and N.C. Blue Cross Blue Shield) to create a comprehensive and confidential database to support analysis of patterns of cancer care and outcomes in North Carolina with the goal of improving cancer care for all of our citizens. The database will eventually expand to include multiple data sources including geographic, demographic and environmental data.
- **The Collaborative Cross:** Thanks to UCRF support, UNC is home of a unique effort to develop genetic mouse models of disease, including a broad array of cancers. These models provide unequalled power to understand how genes and external factors interact in cancer's formation and treatment. This powerful resource has already attracted approximately \$10 million in external funding.
- **The Jeanne Hopkins Lucas Breast Cancer Study (Carolina Breast Cancer Study 3):** This comprehensive study combines data about cancer's occurrence in N.C., genetic and biological differences between individuals, and clinical data. When completed, it will provide unique insights into the causes of observed disparities in breast cancer outcomes between African-American and Caucasian women in N.C.

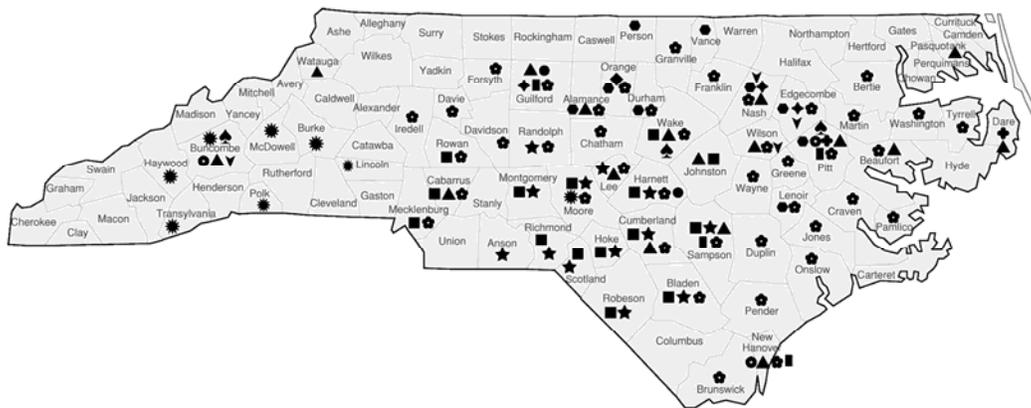
Address:

UNC Lineberger Comprehensive Cancer Center
School of Medicine CB# 7295
University of North Carolina at Chapel Hill
450 West Drive Chapel Hill, NC 27599-7295

Email: lccc@med.unc.edu

Collaboration with Research Partners Across the State

UCRF has initiated research partnerships with investigators at **East Carolina University, North Carolina Central University, and UNC-Asheville**. Through **Health E NC**, UCRF has initiated six peer-reviewed projects designed to promote healthy behaviors in five of the state's most populous counties.



Progress

- **Stimulated External Funding through Major Grant Initiatives.** UCRF investments have increased UNC's competitiveness for major research awards including:
 - * The Cancer Genome Atlas (up to \$20M over five years from the National Institutes of Health);
 - * Carolina Center for Cancer Nanotechnology Excellence (\$13.5M over five years from the National Cancer Institute);
 - * National Cancer Institute's Chemical Biology Consortium and Experimental Therapeutics Program (\$2.4M for the first year);
 - * National Cancer Institute's Comprehensive Minority Institution Cancer Center Partnership Grant with North Carolina Central University (\$11.9M over five years, including \$7M to NCCU);
 - * Agency for Health Care Quality and Research study of the comparative effectiveness of prostate cancer treatments (\$3.3 million over five years).

In addition, UCRF support was a critical contribution to UNC's award of the NC TraCS Institute, an NIH Clinical Translational Science Award totaling more than \$20M over five years. UCRF support was also important in establishing the \$18M Carolina Partnership at the Eshelman School of Pharmacy.

- **Stimulated External Funding through Pilot Grant Initiatives.** UCRF's 2007 investment of \$2.4 million through the Innovation Awards Program resulted in approximately \$13 million in incremental extramural funding, contributed to the filing of two patents and the creation of one start-up company.
- **"Exceptional" Rating by the National Cancer Institute.** In 2010, peer-review by the National Cancer Institute rated UNC Lineberger Comprehensive Cancer Center an "exceptional" cancer center, the highest rating under the new scoring system. UNC Lineberger is one of only a very few centers rated as "exceptional" and reviewers specifically praised the progress made with the support of the University Cancer Research Fund.
- **Faculty Excellence.** UCRF has helped support the recruitment and retention of outstanding faculty at UNC-Chapel Hill, such as Dr. Benjamin Major who has been awarded a \$2.2M NIH Young Innovator Award, to more senior researchers, such as Drs. Stephen Frye and Hy Muss. Dr. Frye, the former worldwide head of discovery medicinal chemistry at GlaxoSmithKline, has established the Center for Integrative Chemical Biology and Drug Discovery at the Eshelman School of Pharmacy. Dr. Muss, one of the nation's leading breast cancer oncologists, is building a geriatric oncology program at UNC-Chapel Hill that will address the needs of N.C.'s aging population. UCRF has also helped retain strategically important, high-quality UNC-Chapel Hill faculty from across the campus and kept them from moving to MIT, Harvard, Washington University St. Louis, Baylor, The Cleveland Clinic, Duke, and others. Dr. Joe DeSimone, a former Tar Heel of the year, and a world leader in nanotechnology is a key UCRF retention.

The University Cancer Research Fund is governed by a seven-member Cancer Research Fund Committee, established by the General Assembly. The committee is chaired by UNC-Chapel Hill Chancellor, Dr. Holden Thorp. The four other permanent members include: Director, UNC Lineberger Comprehensive Cancer Center (Dr. Shelton Earp); Dean, UNC School of Medicine (Dr. William Roper); Dean, UNC Eshelman School of Pharmacy (Dr. Robert Blouin); and Dean, UNC Gillings School of Global Public Health (Dr. Barbara Rimer). Two other members, elected by majority vote, are: Dr. Edward Benz, Jr., president and CEO of Dana-Farber Cancer Institute; and Dr. John Mendelsohn, president of the University of Texas MD Anderson Cancer Center.