

Cancer Lines

The Cancer Program of UNC-Chapel Hill & UNC Health Care

Spring 2007

UNC
N.C. CANCER HOSPITAL
LINEBERGER COMPREHENSIVE
CANCER CENTER

the inside line up



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Pharmacogenomics Enables More Targeted Treatment

Researchers at UNC Lineberger are advancing beyond one-size-fits-all treatments for cancer to prescribe personalized therapies based on each patient's genetics.

"The big clinical need we're trying to serve is which of the many cancer drugs is right for each patient, and how we can avoid the unacceptable level of side effects," explains Lineberger member Howard McLeod, Fred N. Eshelman Distinguished Professor in the UNC School of Pharmacy.

Pharmacogenomics, the study of inherited DNA variations, enables clinicians to design treatments that are more effective, have fewer adverse effects and stand to improve patient outcomes.

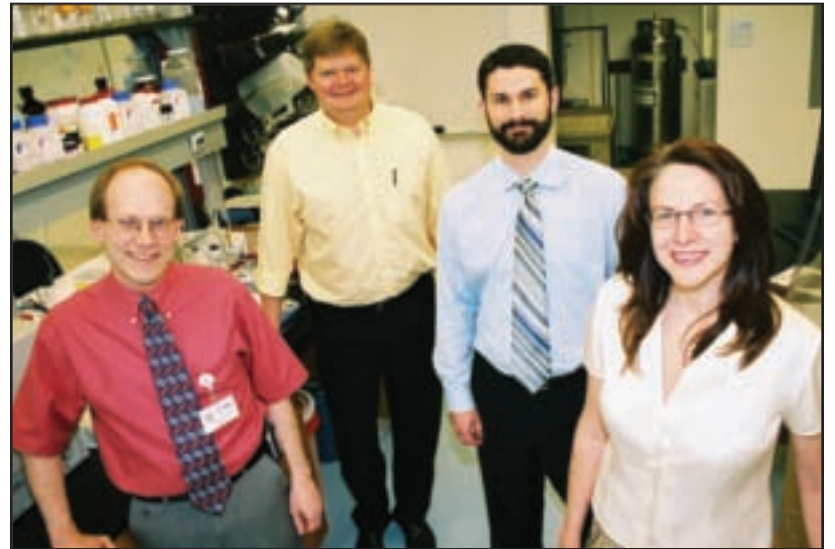
"Differences in our genetic makeup can affect how individuals metabolize and respond to drugs, including cancer therapy," says Karen Weck, associate professor of pathology and laboratory medicine, and director of molecular genetics in UNC Hospitals' McLendon Laboratories. Her work includes developing and validating clinical tests that can be used to target the right therapy for individual patients based on a patient's genotype.

"The hope," she says, "is that personalized diagnostics and therapies will result in better response to cancer therapies and less toxicity."

Two centers at UNC are exploring the link between genetics and drug therapies:

The UNC Institute for Pharmacogenomics and Individualized Therapy (IPIT): McLeod runs this new research institute that is the first of its kind in the nation. IPIT will work to create effective therapies and precise treatment options for individual patients diagnosed with a wide range of conditions. Faculty and staff from the Schools of Pharmacy, Medicine, Public Health, Nursing and College of Arts & Sciences are actively involved, with planned integration of

investigators from the Schools of Business, Law and Journalism. The goal is to use the multidisciplinary nature of the institute to more efficiently bring individualized therapy



Program leaders with the UNC Institute for Pharmacogenomics and Individualized Therapy (IPIT) (left to right): Dr. Jim Evans, director, clinical cancer genetics program, UNC; Dr. Howard McLeod, director, UNC IPIT; Dr. Dan Jonas, IPIT investigator; and Dr. Karen Weck, director, molecular genetics, UNC Hospitals' McLendon Laboratories.

to routine clinical practice. Initial efforts will focus on cancer therapy with planned expansion into cardiovascular disease, psychiatric disorders and global health.

The Bryson Center for Human Genetics: James Evans, director of clinical cancer genetics and a Lineberger member, heads this center which integrates basic science investigation with clinical care. Part of this effort is a campus-wide

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At the Lineberger Club Brunch on February 10, 2007, Shelley Earp, Director, UNC Lineberger Comprehensive Cancer Center, launched the Carolina Capstone Challenge for Innovative Cancer Research. Dr. Earp reported that the Center had received a wonderful commitment for \$1,000,000 from two anonymous challengers. These challengers have agreed to match all gifts and pledges (payable up to 5 years) of \$25,000 or more made before December 31, 2007.

The Challenge targets the Lineberger Seed Grants program, one of the Cancer Center's most successful initiatives, generating new ideas and novel approaches to cancer treatment, early detection and prevention. These funds give our excellent faculty the resources they need to set out in new directions to discover the unexpected and find new paths to a cure. Knowledge made possible by their innovative approaches will make a difference in the lives of cancer patients and their families.

Although the program has a twenty-year track record of producing life-saving cancer research, it has never been on secure financial footing. Since its establishment in 1986, the Seed Grants Program has relied almost entirely on

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Director's Message



Dr. H. Shelton Earp, III

Cancer is much in the news-nationally, with Elizabeth Edwards, Tony Snow, and Fred Thompson, as well as locally, with UNC's football coach Butch Davis and

NCSU women's basketball coach Kay Yow. They and more than 10 million other Americans are living with cancer - coping with new diagnoses or recurrences, getting through treatment, and, most importantly, learning how to move forward with their lives in productive and satisfying ways.

The number of cancer survivors marks our considerable progress. Over the past thirty years, the number of survivors has tripled. Over the next thirty years, as screening and treatment continue to improve, that number is likely to triple again. In addition to being a reason to celebrate, the growing number of survivors presents a challenge. We must improve our capacity and ability to address survivors' short and long-term needs so they can live their lives to the fullest extent possible.

As you will read in this issue of *Cancer Lines*, UNC Lineberger is doing just that. Under the energetic

leadership of Claudio Battaglini and Diane Groff, Get Real & Heel is helping our breast cancer patients reduce treatment side effects through exercise and recreational therapy. As the tired but enthusiastic participants will tell you, this program also gives them tools to enhance their psychological, as well as their physical, well being. Funded in part by the NC Triangle chapter of the Susan G. Komen Foundation, this successful program is now looking to expand.

Live Strong is the Lance Armstrong Foundation's motto, but how can we be sure that programs, resources, and expertise available in an NCI-designated Comprehensive Cancer Center become available to rural and minority cancer survivors? Marci Campbell is leading a multi-disciplinary team of UNC Lineberger members who are using a Lance Armstrong Foundation planning grant to develop programs and relationships that can assure high quality and comprehensive follow-up and support for patients at UNC and from three rural communities in North Carolina.

These survivorship projects are just two of the many that UNC Lineberger members are leading. Don Baucom is testing a couples counseling intervention to improve coping and quality of life for breast cancer patients. Merle Mishel has demonstrated the effectiveness of an

uncertainty management counseling intervention for prostate cancer patients and is now applying that to young women with breast cancer. Marilie Gammon and Andy Olshan are examining issues of weight gain and quality of life in breast and head and neck cancer survivors. This fall, the Center will sponsor a one-day survivorship retreat for our researchers and staff so that we can identify critical research opportunities on which to focus our energy.

As always, the Cancer Center continues to look to the future of cancer treatment and care. This issue's lead story presents the second installment in our coverage of personalized medicine. The new UNC Institute for Pharmacogenomics and Individualized Therapy in the UNC School of Pharmacy, led by Dr. Howard McLeod, is developing tools to determine which cancer drug will work for which patient and with the fewest side effects.

Success in this and other applications of science to clinical care inevitably brings us back to the cancer patient and the survivor. Our goal must be not just to extend life. We must extend the quality of life as well. How we do just that must and will be an increasingly important part of the UNC Lineberger's research and care mission. ●



UNC Lineberger is designated a Comprehensive Cancer Center by the National Cancer Institute.

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O'Malley Wins Massey Distinguished Service Award

Dr. Michael O'Malley, UNC Lineberger associate director and co-director of the UNC Lineberger Cancer Control Education Program, was one of six UNC employees to be honored with the 2007 C. Knox Massey Distinguished Service Award, one of the most coveted distinctions bestowed upon University faculty and staff. He was cited for his work that reaches beyond campus to touch countless lives. Described as the "cancer maven" by one colleague, O'Malley's expertise is enhanced by complementary skills as an administrator, teacher and scientist.

O'Malley has been with UNC Lineberger since July of 1990. ●



At a special celebration in January 2007, Charles Johnston and his family joined UNC Lineberger Cancer Center Director Dr. Shelley Earp to dedicate a research laboratory. This dedication was in recognition of a generous gift from Mr. Johnston of Chapel Hill in support of ovarian cancer research and in memory of his late wife Carolyn (Chris) Johnston who had been a nurse at North Carolina Memorial Hospital for many years. The laboratory was named in memory of Mr. and Mrs. Johnston's daughter, Margaret Anderson Johnston, who died in 1979. Mr. Johnston passed away in February 2007. The Johnston family (left to right): Patricia Johnson; Deborah Rodgers; Chuck Johnston; and Susan Sellars, with their father, Charles Johnston.

Pharmacogenomics

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"Phenotyping Core" that collects DNA samples and clinical information from a broad array of investigators in order to gain maximum amounts of information from genetic studies; to facilitate such studies; and to protect subjects of research.

Identifying Markers

A deeper understanding of the human genome allows scientists to better predict a person's response to a particular drug or dosage.

"If all we had was one drug, all that would matter was the dosage," McLeod notes. "But now with so many kinds of drugs available, there's a real choice to make about what drug and what dose. One-size-fits-all is better than nothing and has helped a lot of people, but as we refine the choices, you want the first therapy to be the right one."

McLeod is currently working with several large national clinical trials groups—such as Cancer and Leukemia Group B (CALGB) to confirm that findings from small institutional studies will actually translate into better therapy across the nation. Most large CALGB studies now collect a specific blood sample for DNA analysis as part of the trial. CALGB is a program of the National Cancer Institute.

"Right now, we're working hard to answer whether a marker is a good predictor," he says. "We're working with an NCI-funded clinical trials group, so instead of being able to look at only 50 patients from North Carolina, for instance, we can look at 1,500 patients from across North America to find out if a marker really does predict the risk of side-effect or bad outcome -- or not."

In some cases, the Food and Drug Administration will change drug package inserts to identify patient groups that are genetically predisposed to experience severe side effects or inadequate benefit. McLeod and his team have successfully pushed for changes in packaging for drugs used to treat advanced colorectal cancer (Irinotecan), solid tumors (5-FU) and childhood leukemias (thiopurines such as mercaptopurine).

From the Lab to the Patient

Findings such as this can help physicians make better treatment decisions for their patients. After all, there are more than 70 FDA-approved drugs that might be useful for a particular tumor, so anything that helps narrow down the choices to a handful of very effective options is a significant improvement.

For instance, later this year Evans, Weck and members of the Lineberger Breast Cancer Program will undertake a study of how breast cancer patients respond to Tamoxifen. Most breast cancer development is dependent on estrogen, and Tamoxifen blocks the estrogen receptor that allows the hormone to work. Women who have a genetic variant in the enzyme that converts Tamoxifen into its active form may not respond as well to the drug.

"If we can identify women who aren't responding well to the treatment," Evans says, "we can adjust their treatment and achieve better outcomes."

Extended Benefits

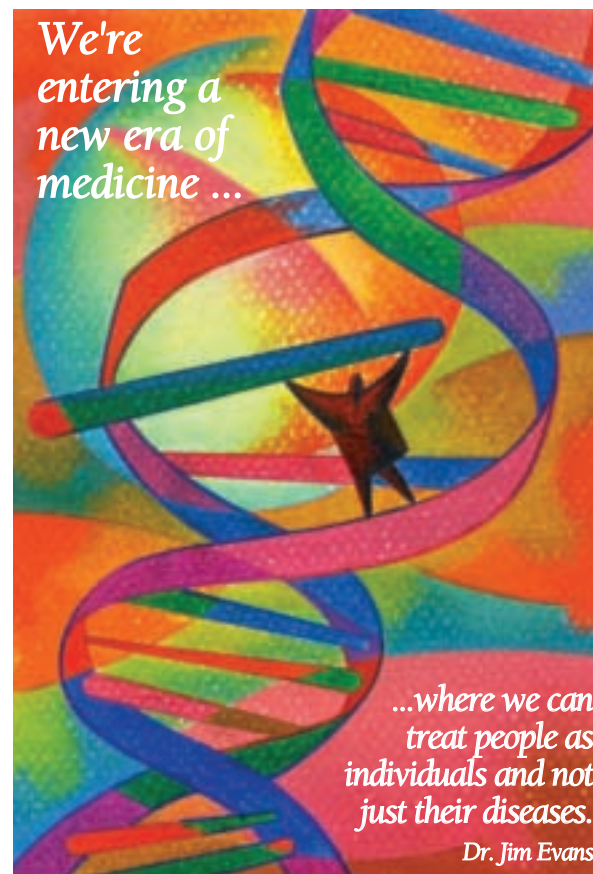
Genetics also help researchers understand how someone might respond to all kinds of medicine, not solely chemotherapy regimens, McLeod adds. "We need to do a better job at matching patients with the right pain meds, anti-nausea meds and drugs that stimulate red or white blood cells. Personalized medicine lets us look at patients and their treatments in a more comprehensive way."

And these more effective treatments have benefits beyond the health care realm. There's also an economic benefit.

"In many cases right now, we have to treat all patients with expensive drugs to find out which 10 percent of patients actually benefit from the treatment," McLeod explains. "Or, with very expensive drugs, the access is limited. Knowing more about who will respond well to what will help us prescribe the expensive treatments only to the people who will actually benefit from them. That will create a decrease in costs to the state as we choose better. Being more rational means we can be more responsible to taxpayers."

The Bottom Line

Our increasing knowledge of the human genome will have a far-reaching positive impact on medicine as scientists learn - and apply - more of what they know.



"Medicine as we've practiced it has been inefficient because we didn't treat individuals," Evans says. "We're entering a new era of medicine where we can treat people as individuals and not just their diseases. It's our hope that through the application of this knowledge and technology, we'll be able to treat better, prevent better and avoid adverse reactions. We can stop using the same screening and treatments for all and start improving the quality and effectiveness of care while lowering the cost and of treatment." ●



The 31st annual UNC Lineberger symposium attracted more than 400 scientists from North Carolina and beyond to hear the latest findings on "Viruses, Immunity and Cancer." Shown here (left to right) are Dr. Dirk Dittmer of UNC; symposium co-chair Dr. Jenny Ting; and symposium speaker Dr. Tak Mak of the University of Toronto all sharing a laugh with Dr. Blossom Damania of UNC and a symposium speaker.

Capstone Challenge

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annual solicitations and special one-time gifts to fund its annual budget.

The Seed Grants Program began in 1986 to give researchers the opportunity to develop innovative ideas and in many cases, use their findings to leverage major funding from conventional sources. The program has been highly successful, allowing UNC Lineberger faculty to produce significant and surprising new knowledge in many areas of cancer research over the years. They have also successfully leveraged modest grant awards of between \$20,000 and \$35,000 into hundreds of thousands and in a few cases, millions of dollars in federal research grants

"If we meet our goal before December 31, 2007, the Carolina Capstone Challenge will provide \$2 million in venture capital for this leading edge, high-reward research. This would allow us to expand the Seed Grant program and increase our ability to respond more quickly to new opportunities. We all are in agreement that innovation for cancer patients cannot wait!" said Dr. Earp.

The initial response to the Challenge has been very enthusiastic. Through the end of April, twenty-one donors had committed \$537,500, 54% towards the \$1 million goal. If you are interested in learning more about the challenge, please contact Debbie Dibbert, Director of External Affairs, at (919) 966-9874 or at debbie_dibbert@unc.edu. ●

Profile

Ever since he was a kid growing up in San Diego, Robert Millikan wanted to be a scientist.

"I was interested in chemistry, and I thought it held the answers to why things work the way they do," says Millikan.

Today, he's an epidemiologist trying to understand how breast and colon cancers and malignant melanomas work by studying genetics, environment and tumor biology.

"By identifying causes of cancer, we learn how to prevent it from occurring in the first place," says Millikan. "It's very important that we give people information that enables them to be proactive about their health," he notes. "As a society, we would benefit tremendously by lowering the burden of cancer through better methods of prevention. Huge outlays of money are spent on treatment every year. The burden of human suffering will steadily increase as the population ages unless we act effectively in the area of primary prevention, preventing cancer from occurring."

The Doctor of Epidemiology

Millikan graduated from Reed College where he developed a love of rowing. He then received his degree in Veterinary Medicine from the

University of California-Davis and his doctorate in epidemiology from the UCLA School of Public Health. Squeezed in between was a very productive laboratory stint at Dana Farber Cancer Institute

learning the intricacies of molecular oncology.

The Breast Cancer Specialized Program of Research Excellence (SPORE) brought Millikan to Chapel Hill from UCLA in 1993.

"The chance to do interesting and important work was the biggest draw," he says.

"It is to the Cancer Center's credit that population-based epidemiologic studies have always been at the forefront of their agenda. I think it is one of the things that sets Lineberger apart from other cancer centers."

Doing population-based research requires reaching out to people, demonstrating that the research is worthwhile and achieving high participation rates. "It takes dozens of staff and thousands of people from the general population to carry out a large epidemiologic study," he explains.

Millikan has served as faculty advisor and assistant coach for the UNC rowing program since 1994.

Several undergraduate rowers worked in his laboratory, and many have gone on to medical or graduate school in public health. Bob can still be found in the early morning on University Lake challenging undergraduates to the race of their lives.

The Doctrine

Asked what words he lives by, Millikan quotes Teresa of Calcutta: "There are no great deeds. Only small works done with great devotion." "Many of us in research spend our lives looking for answers to very big important questions," he says. "We make a well-meaning attempt to change the world, to make meaningful contributions. But hard work really has to be its own reward, knowing that you are doing your best regardless of the outcome."

He continues: "I think what we really need in research are people who are just willing to work hard, who take the time to follow up on their ideas and who do the most creative work they can imagine."

Bob is passionate about giving back to the patients he studies, and he is a regular teacher at Project LEAD, a training program for patient advocates ●



Dr. Robert Milliken

Briefs

Health Disparities in Prostate Cancer Stem More from Lack of Care, not Lack of Knowledge

Decreasing the incidence and mortality rates of prostate cancer among African-American men may require improving access to routine health care, rather than increased education about the disease, a UNC study suggests.

"The reassuring part of the findings is that measures to generally make health care more accessible would also potentially address some of the disparities in prostate cancer," says Paul A. Godley, M.D., Ph.D., associate professor of hematology and oncology in the UNC School of Medicine and the study's senior author. He also is a UNC Lineberger member.

The findings were reported in the March 12, 2007 in *CANCER*, the journal of the American Cancer Society.

Industry-funded Breast Cancer Trials More Likely to Yield Positive Results

Drug-industry investment in research currently exceeds the operating budget of the National Institutes of Health. And a recent study from UNC and the Dana-Farber Cancer Institute found that industry-funded studies of breast cancer therapies are more likely to report positive results than non-pharmaceutical funded studies.

"The significance of our study is not to say that the drug industry does anything wrong - they are excellent at developing new therapies, and there are many recent examples in breast cancer research," explains Jeffrey

Peppercorn, assistant professor of medicine in UNC School of Medicine's division of hematology and oncology and UNC Lineberger member. "But if more and more research is funded by drug companies, then the limited amount of funding coming from other sources may need to be directed to address other questions."

The findings were reported online February 26, 2007 in *CANCER*, the journal of the American Cancer Society.

MRI Screening of Opposite Breast Necessary for Women with Recent Breast Cancer Diagnosis

A new multi-center study recommends that women at a high risk of breast cancer should undergo MRI screenings, and that patients diagnosed with cancer in one breast should have an MRI of the other one. The international research team found that MRI detected cancer in the opposite breast in 3.1 percent of patients who had recently been diagnosed with cancer in one breast only. The cancers in the opposite breast were missed by previous mammography and clinical exam.

"No one is recommending that we give up mammography," asserts study co-author Etta Pisano, a principal investigator and Kenan professor of radiology and biomedical engineering

at the UNC School of Medicine. She also is a UNC Lineberger member. "MRI screening is a very expensive tool that should be used judiciously for high risk populations. The last thing we would want is for every woman to think she should get an MRI."

The findings were reported in the March 28, 2007 issue of the *New England Journal of Medicine*.

UNC scientists discover cellular "SOS" signal in response to UV skin damage

UNC researchers have discovered two proteins that help slow the growth of damaged DNA in cells affected by ultraviolet radiation in sunlight. Left unrepaired by the cell, this damage can turn into mutations that lead to cancer. Called Timeless and Tipin, the proteins send a signal throughout the nucleus of the cell to slow the rate of replication, which may give the cell additional time to repair its DNA and potentially save itself from becoming cancerous or from dying in response to ultraviolet radiation.

"This protective response may make some cells more resistant to certain types of cancer therapies which work by inducing the cancer cell to die," explains William Kaufmann, a professor of pathology and laboratory medicine and a UNC Lineberger member. He speculates that this response may be relevant to other types of DNA damage as well - including those used as treatments for cancer.

The findings were reported in the March 15, 2007 online version of the journal *Molecular and Cellular Biology*.

For more stories about UNC Lineberger research, visit www.unclineberger.org/research. ●

“Get Real & Heel” Addresses Breast Cancer Patients' Physiological and Psychological Needs

A new program combines exercise and recreation therapies that can help patients mitigate the side-effects of cancer and cancer treatment.

"The Get Real & Heel program is unique because it is an integrated approach that targets the body through exercise but also the mind through recreation therapy and exercise," says Diane Groff, assistant professor of recreation therapy in the UNC Department of Exercise and Sport Science and the program's co-director.

The program is the brainchild of Claudio Battaglini, assistant professor of exercise physiology in the UNC Department of Exercise and Sport Science, and the program's other co-director.

"Physical and psychosocial therapies have been shown to assist patients in the mitigation of many side-effects commonly developed during treatment," Battaglini explains. "Especially fatigue and depression, according to our preliminary program results. There is a tremendous impact from these therapies on the overall cancer experience, thus helping patients to go through the overall cancer process experiencing fewer side-effects and consequently living a better quality of life."

Rocky (Mountain) Start

After doing research in Colorado at the Rocky Mountain Cancer Rehabilitation Institute, Battaglini started to question the possibility to address more specifically the psychosocial aspects of breast cancer.

"Although exercise has a tremendous impact on the physiology of patients, the psychological gains observed with exercise could, in my opinion, be improved with other interventions that would more specifically target the psychosocial aspects of the disease," he explains.

Upon arriving at UNC, Battaglini and Groff started Get Real & Heel for women between 35 to 75 who have completed all cancer treatment within the past three months.

The Program

Participants meet three times a week for about one hour over a six-month period and engage in a variety of activities, including:

- Cardiovascular endurance
- Resistance training
- Flexibility exercises
- Cognitive and behavioral interventions for pain and stress management
- Relaxation techniques
- Biofeedback
- Leisure counseling
- Music
- Expressive arts



Get Real and Heel program co-directors Claudio Battaglini and Diane Groff

"We are able to provide these services free of charge because of a \$42,316 grant from the N.C. Triangle Affiliate of the Susan G. Komen Foundation," Groff says. Lineberger and the Department of Exercise and Sport Science also provide support and assistance.

By participating in this integrated program, patients experience increased strength, endurance, flexibility and cardio-respiratory health, plus decreased fatigue. Most participants report about a 60 percent improvement in cardiorespiratory endurance, muscular strength, flexibility of the shoulder affected by surgery, and overall functionality. They also have improved self-confidence and self-esteem, more effective coping skills, better pain and stress management, and a stronger sense of personal empowerment.

"To our knowledge, we are the only program in the country, and possibly in the world, using a combined exercise and recreational therapy intervention with the goal to assist post treated breast cancer patients to regain physical and mental strength allowing for better recovery, possibly better treatment outcomes, and ultimately increase survivorship rates," Battaglini explains.

The Get Real & Heel program is open to women with a confirmed diagnosis of Stage I, II, or III invasive breast cancer from 13 North Carolina counties served by Komen. For more information about participating, call (919) 962-1222 or visit www.unc.edu/depts/exercise/RTB/.



One of the program activities is a ropes course. Here, participant Mimi Davies prepares to walk across a rope more than 30 feet above the ground.

Thirteen of the nation's top cancer centers, including UNC Lineberger, have formed The Cancer Research Alliance, a separate 501(c)(3) devoted to securing national cause-related marketing alliances to fund cancer research at the participating organizations and to raise awareness of issues related to cancer.

Cause-related marketing, the public association of a for-profit company with a nonprofit organization or cause, promotes the company's product or service and raises money and awareness for the nonprofit or issue. As a marketing tool, cause-related marketing has long been used by non-profit organizations and companies to benefit their brands. According to the International Events Group, U.S. sponsorship spending on cause marketing will hit \$1.44 billion in 2007.

The Cancer Research Alliance is the first organization of its kind to provide both local and national value to participating companies and is currently securing national corporate partners for consumer promotions. Interested companies can contact Debbie Dibbert at debbie_dibbert@unc.edu.



The 13 member organizations are located in seven of the top 10 media markets according to Nielsen Media, and geographically represent key consumer markets across the United States. Each member institution has been designated as a Comprehensive Cancer Center by the NCI. The other institutions include: City of Hope; Dana-Farber Cancer Institute; Fox Chase Cancer Center;

Fred Hutchinson Cancer Research Center; The Holden Comprehensive Cancer Center at University of Iowa; Arthur G. James Cancer Hospital and Richard J. Solove Research Institute at The Ohio State University; Lombardi Comprehensive Cancer Center of Georgetown University; The University of Texas M.D. Anderson Cancer Center; H. Lee Moffitt Cancer Center and Research Institute; Robert H. Lurie Comprehensive Cancer Center of Northwestern University; Roswell Park Cancer Institute; and the University of California San Francisco Comprehensive Cancer Center. For more information, please visit the CRA Web site at: <http://www.cancerresearchalliance.org/>.

Improving Cancer Survivor Resources and Services: At UNC and Across North Carolina

Cancer survivors from across the state of North Carolina will benefit from a one-year, \$75,000 planning grant from the Lance Armstrong Foundation (LAF) to help researchers and clinicians at UNC Lineberger improve cancer survivorship programs and services. The grant will support the development of a strategic plan for Lineberger and the new NC Cancer Hospital enabling them to apply to join the prestigious LIVESTRONG™ Survivorship Center of Excellence Network, an initiative of the LAF.

"This year in the US, there are 10.5 million cancer survivors. This growing number speaks to improvements in therapy and care. As this population increases, health care providers must have programs and resources in place to help these patients and to live as fully as possible," says Marci Campbell, PhD, Professor of Nutrition at UNC Schools of Public Health, Program Leader for Prevention and Control at Lineberger, and program director of the planning grant.

The planning year focuses on three areas: clinical services, developing partnerships with community-based centers, and statewide collaboration. The clinical focus will build on the existing programs of the clinical, resource and psycho-oncology staff at UNC by creating a seamless transition from end of treatment to ongoing care through the creation of survivorship clinics, the use of treatment summaries, and survivorship care plans. These efforts can help to prevent and control adverse outcomes and encourage the provision of optimal follow-up care and surveillance, and will include lifestyle recommendations, information about psychosocial resources, and referrals to patient and family genetics counseling if appropriate.

Patients seen at UNC are often from communities in rural areas of the state, and need

services closer to home. "Through our collaboration with our three partner communities we will work with existing groups and agencies to establish a network of resources that avoids duplication of effort and that can maximize services, and access to those services, for survivors," says Paul Godley, MD, Director of the UNC Program on Ethnicity, Culture, and Health Outcomes, clinical oncologist, Lineberger faculty member, and co-director of the planning grant. "Having close community partners will help survivors follow their survivorship care plans in their home communities." UNC partners are Area Health Education Center (AHEC) Area 1 which includes Edgecombe, Halifax, Nash, Northampton and Wilson counties; AHEC Greensboro which includes Alamance, Caswell, Chatham, Guilford, Montgomery, Orange Randolph, and Rockingham counties; and Tri-County Community Health Council of Newton Grove.

"With better monitoring and follow-up of patients, as well as better continuing medical education with community health providers, new symptoms may be caught earlier and treated," says Campbell. "In addition, the emphasis on health promotion (weight, smoking cessation, physical activity, regular health care and screenings) may help prevent cancer recurrence and greatly improve the quality of life for survivors."

The LAF-funded team is collaborating with the State on a county by county assessment around survivorship, helping to disseminate information and education to the clinical community of physicians and care providers, and assisting with the



LAF grant team members. Front row (left to right) Judy Swasey, nurse practitioner; Dr. Paul Godley; Dr. Marci Campbell; Bobbi Marks, administrative director, UNC Health Care Oncology Services; Mindy Gellin, LAF grant outreach coordinator. Back row (left to right) Dr. Marilie Gammon, professor of epidemiology, UNC School of Public Health; Elizabeth Sherwood, nurse practitioner and patient counselor; Salli Benedict, LAF grant project coordinator; Dr. Michael O'Malley, associate director, UNC Lineberger. Not pictured is Dr. Merle Mishel, Kenan Professor of Nursing.

first NC Cancer Survivorship Summit in June 2007. "It's all about orienting our health care system to have cancer survivorship as a centerpiece of what we do," according to Walter Shepherd, PhD, Director, NC Comprehensive Cancer Program, and Executive Director, NC Advisory Committee on Cancer Coordination & Control. "It is important that we make a firm commitment to ensure that those of us who are in positions to impact care embrace the goal of providing survivors and their families with the highest quality and most compassionate care and attention possible. The time is right to make that happen, and being part of the LAF-funded team will help us reach these goals more quickly." ●

Clarks Make Major Gift to SECU Family House

Mr. and Mrs. William G. Clark, III made a gift of \$500,000 to the SECU Family House at UNC Hospitals. Bill and Gray Clark made the gift in memory of William G. Clark and William G. Clark, Jr., and have thus provided the funding for the William G. Clark Courtyard at SECU Family House, a 40-bedroom hospital hospitality house for adult critical care patients and family members currently being built next to the Ronald McDonald House of Chapel Hill.

"Through the Lineberger Cancer Center, my wife and I became aware of the dire need for housing for family members visiting Chapel Hill from all over North Carolina," Bill Clark said. "Many of these families stay in Chapel Hill more than eight weeks at a time. We are glad to be able to help meet the urgent need for affordable, comfortable accommodations for family members caring for critically ill loved ones at UNC Hospitals."

SECU Family House plans to open to guests in late 2007. ●



Introducing ...

"Hugh Morton's North Carolina" notecards
on sale June 1 to benefit UNC Lineberger Comprehensive Cancer Center

Hugh Morton, UNC '43 and owner of Grandfather Mountain, was an extraordinarily talented photographer. His photographs have appeared in numerous magazines and hang in nearly every visitor center along North Carolina's highways. Mr. Morton passed away in the summer of 2006 after a short battle with cancer. His family has graciously given us permission to use four of his photographs featuring North Carolina landscapes on a new line of notecards to raise funds for cancer research, treatment and prevention programs at UNC Lineberger. These photographs originally appeared in Mr. Morton's last book, "Hugh Morton, North Carolina Photographer."

Cards will be sold in packs of 12 (with 12 envelopes) for \$20. A wonderful gift idea for birthdays, graduation, and Father's Day, the notecards are available exclusively through UNC Lineberger.

To place your order, please visit www.unclineberger.org and follow the links, or call the Office of External Affairs at 919-966-5905.

We are grateful to Litho Industries of Morrisville, NC for making this project possible with their generous donation of printing and paper.



Lineberger Board of Visitors members Wayne and Billie Ann Peterson hosted over 70 guests for an evening of friendraising and fundraising at their home in Pinehurst on April 12, 2007. They are pictured here with UNC Lineberger Surgical Oncologist Dr. HJ Kim and his wife Dana.



The Rho chapter of Alpha Phi Omega, a UNC co-ed community service fraternity, donated \$1700 to UNC Lineberger Comprehensive Cancer Center's Patient and Family Resource Center. The 2007 Spring Pledge Class raised the funds to purchase comfort items from the Resource Center's Wish List for our patients and their families. The Pledge Class' funds, raised from donations at several organized events, were matched by the entire chapter. Pictured are some members of the Pledge Class with Patient and Family Resource Center staff Tina Shaban and Pam Baker accepting a check from Class President Kristen Black, and patient Greg Hart from Raleigh, who joined them for the occasion.



The Iota Tau chapter of Phi Beta Lambda at NCCU held its Walk to Cure on January 27. Close to \$1000 was raised to support breast cancer research at UNC Lineberger. Pictured left to right: Bruce Corbett, Mr. Phi Beta Lambda; James Cheek, Jr. Co-Mr. Phi Beta Lambda; Jacqueline Madry; Tina Young, Chair, Walk To Cure; Antonio Black, President; Vanessa Knight, Vice President and Tyra Brooker, Reporter, and advisor Sonya Scott.



Zeta Tau Alpha held its 18th annual Franklin 5 K with UNC Lineberger as one of the recipients of funds raised from the event. Get Real & Heel co-director Diane Groff spoke at the event. Left-right Sara McBride, 2007 5 K chair; Groff; Lauren Kelley, 2008 5K chair.



February 10, 2007 marked the 20th annual Lineberger Club Brunch and Basketball Game. Dr. Shelley Earp offered special recognition to the 10, 15 and 20 year Lineberger Club members. Attendees were updated on cancer genetics by Dr. Jim Evans, leader of the UNC Clinical Cancer Lineberger Genetics program at UNC, and heard a moving talk given by breast cancer survivor Rivka From and daughters Carlye and Courtney, also known as "The Gene Girls," all of Raleigh. Special thanks to corporate partners Embarq, Lee-Moore Oil and Café Carolina and Wachovia for underwriting this year's brunch. Pictured (front row left to right): Courtney, Carlye, Rivka, and Allan From, Dr. Richard Goldberg and Dr. Jim Evans; (back row) Josh Hirsch and Dr. Shelley Earp.



On June 10th, seven local high school students will put down their books, quit their part time jobs, load their bikes up, and head to Aberdeen, Maryland. For the next 10 weeks, and for 3700 miles, this high school crew will live in small farm towns, swim in rivers, bike through corn fields, over the Cascades, and finally to the water of Annacortes, Washington. For what some describe as 'THE perfect summer' they will not be a student of the classroom but a student of life. Along the way, the WaBu crew (that's Washington or Bust!) will be raising money and awareness for the UNC Lineberger Cancer Center. This is being done as a tribute to rider David Hare's mother, Gill, who was successfully treated for breast cancer at Lineberger. Follow the progress of the WaBu crew by logging onto www.WabuCycleTour.com.



The 2007 Lineberger Beach Ball Planning Committee.



Bob and Nancy Myer (front) of Skanska, a corporate sponsor of the Beach Ball, and Debbie and Jay Hodshon (back) enjoy fine food and good company at the beach ball pre-party at A Southern Season.

Street and Skanska. All proceeds from the Beach Ball support UNC Lineberger's cancer prevention, care and treatment programs. ●



Beach Ball guests dance to the music of Liquid Pleasure.

2007 Beach Ball A Big Splash!

The 2007 Lineberger Beach Ball was a big splash this year with festive food and drinks, great music and beautiful decorations.

The evening began with a picture perfect pre-party, underwritten by an anonymous donor, at The Weathervane restaurant in A Southern Season. More than 100 Beach Ball sponsors and patrons attended.

Over 700 guests attended the Lineberger Beach Ball held in center court of University Mall. Guests included local celebrities like "Voice of the Tar Heels" Woody Durham, and Mick Mixon, now the play-by-play announcer for the Carolina Panthers, who served as emcee for the evening. "It's the who's who of Chapel Hill," one guest said after the evening. "I had no idea how big an event the Beach Ball is."

Thanks to the leadership and dedication of this year's Beach Ball chairs - Suzie Havens, her sister Deb Shah, and their mother Bev Foster, and their energetic committee, this year's event raised more than \$110,000, bringing the four-year total to over \$420,000! A special thank you to our most generous sponsors for their loyal support - Blue Cross Blue Shield of NC, The Chapel Hill Herald, Eurosport, Spice

calendar *of events*

J U N E 2 0 0 7

9th 11th NC Triangle Komen Race for the Cure, Raleigh, NC

S E P T E M B E R 2 0 0 7

6th-20th Lilly Oncology on Canvas: Expressions of a Cancer Journey Art Exhibit Lobby, N.C. Children's Hospital, Chapel Hill, NC

14th UNC Lineberger Board of Visitors Meeting, Chapel Hill, NC

O C T O B E R 2 0 0 7

2nd Tickled Pink Women's Cancers Luncheon, Squids, Chapel Hill, NC

4th Tickled Pink Women's Cancers Luncheon, Galloway Ridge, Pittsboro, NC

12th Third Annual Roy Williams' Fast Break Against Cancer, Smith Center, Chapel Hill, NC

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