UNC Lineberger Comprehensive Cancer Center

# Cancer Lines

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

Spring 2005

UNC LINEBERGER COMPREHENSIVE CANCER CENTER

## the inside line



# Collaboration Fosters Team Approach to GI Cancer Prevention, Diagnosis and Care

A new five-year, $11.5-million grant funding a Specialized Program in Research Excellence (SPORE) focused on gastrointestinal cancers supports UNC Lineberger members in translating laboratory findings into new approaches for preventing, detecting and treating GI cancers—the second leading cause of cancer death nationwide. GI cancers include tumors of the esophagus, stomach, pancreas, liver, colon and rectum.

This intensive research helps scientists take findings from the basic research lab and put them to use in the clinic in order to drive advances in prevention, diagnosis and management of the disease. Under the SPORE, each project is co-led by a basic scientist and a clinician to develop and test tailored therapies designed specifically for different types of cancers and patients. These treatments will improve patient outcomes and quality of life.

"The GI SPORE is designed to foster translational research," says Joel Tepper, professor and chairman of the department of radiation oncology, and principal investigator of the GI SPORE. "Our work goes between lab and clinic and back again to try to learn as much as we can about these cancers. It's not just lab scientists working in isolation. Their findings are shared with clinicians who work directly with patients. Their feedback then goes back to the lab where it gets put back in the research stream."

*The SPORE is comprised of five major projects.*

***1. Prognostic and Predictive Factors in Outcomes of Patients with Colorectal Cancer: A Population-Based Study**, Robert Sandler, MD, MPH, principal investigator; Temitope Keku, PhD, co-principal investigator.*

"In this study we will analyze tumor specimens to determine if there are certain genetic changes that will influence the prognosis of the patients or their responses to therapy," explains Robert Sandler, chief of the division of gastroenterology and hepatology. The project will help researchers identify tumor characteristics that indicate poor prognosis and could be used to develop specific treatments.

Tumor specimens were collected in the CanCORS (Cancer Care Outcomes Research and Surveillance) project. CanCORS is a population-based study designed to determine how patient, provider and treatment factors influence the

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### *NCI Director Visits UNC Lineberger*

Dr. Andrew von Eschenbach, director of the National Cancer Institute, visited UNC Lineberger on March 3. He listened to faculty presentations of new and ongoing research with lively discussion following the presentations, met with UNC School of Medicine Dean Bill Roper, and concluded his visit by giving a talk about NCI programs and goals to faculty and staff. *Pictured here, left to right:* Dr. Bill Roper, Dr. Andrew von Eschenbach, and Dr. Shelley Earp.

***Reconstructive Surgery:***

# Restoring Function and Appearance for Patients

***Exc Mal IES Neck. Breast Recon & Transflap/Mast. Remove Bil. Arch Bar. Trach.***

That may be all Greek to you and me, but it's all in a day's work for the reconstructive surgery team, all members of UNC Lineberger. These are some of the procedures logged on the daily roster of surgeries posted outside the operating room.

"A multidisciplinary surgical oncology team allows each member of the team to do what they do best," says Mark Weissler, professor of otolaryngology/head and neck surgery and leader of the UNC Lineberger head and neck cancer program. "Outside the operating room, surgeons, radiation oncologists, medical oncologists, nurses, therapists and social workers all work together to formulate a game plan. The various team members work together on a daily basis and communicate with each other in an environment that encourages the exchange of important information."

## Working Together

"Curing cancer is the primary goal of surgical oncology, but the surgeries can leave devastating problems," says Carol Shores, assistant professor of otolaryngology/head and neck surgery. For instance, after surgery head and neck cancer patients frequently have problems with swallowing and can have significant alteration in their appearance. Or they are missing parts of their ears, noses or cheeks.

That's where the reconstruction team comes in. "I love that what I do is all about the patient's quality of life," says Clara Lee, assistant professor of plastic and reconstructive

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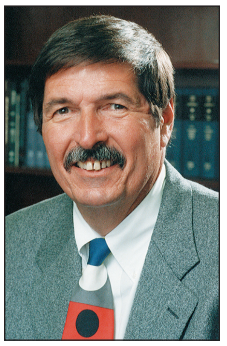
# Director's Message



*Dr. H. Shelton Earp, III*

The hallmark of UNC Lineberger is multidisciplinary science and medicine. Since the cancer center began, it has created and maintained a national reputation among scientists as fostering a collaborative atmosphere. Initially our strength came from laboratory scientists who interacted to ask fundamental questions about cancer's causes and mechanisms. Next we extended this approach to epidemiology and other public health sciences.

In the last decade, UNC has developed a similar collaborative approach to care for patients with a team approach for treatment. All the medical specialists meet to reach consensus on the best therapy for each patient.

This culture of collaboration has given UNC a national reputation as a place where the traditional boundaries blur between medicine and laboratory, population and behavioral sciences, and we have the recognition and the grants to prove it.

The recent National Institutes of Health Roadmap initiatives exemplify UNC's skill at collaborative science. UNC-Chapel Hill, drawing on its strong ability to work across disciplines and develop collaborative teams, has won three of 21 National Institutes of Health Roadmap for Medical Research Grants, more than any other institution in the nation. UNC Lineberger faculty members are among the leaders of these new initiatives. Barry Popkin, member of the UNC Lineberger cancer prevention and control program, leads the effort to establish an Inter-Disciplinary Obesity Center. Popkin is professor of nutrition in the UNC School of Public Health and a fellow at the Carolina Population Center.

Balfour Sartor, member of the UNC Lineberger immunology program, leads an effort to plan a new imaging program to develop non-invasive approaches to assess inflammation. Balfour Sartor is professor of medicine and microbiology and immunology and director of UNC's Multidisciplinary Center for Inflammatory Bowel Disease Research and Therapy. Sartor's co-principal investigator is Etta Pisano, UNC Lineberger clinical research program member, professor of radiology and biomedical engineering, chief of breast imaging at UNC Hospitals and director of the Biomedical Research Imaging Center.

Terry Magnuson, leader of the UNC Lineberger cancer genetics program, serves as co-principal investigator with Daniel Reed, principal investigator, on the grant to establish the new Carolina Center for Exploratory Genetic Analysis. Dr. Reed is UNC Chapel Hill's Vice Chancellor for Information Technology and Chancellor's Eminent Professor. Magnuson is Sarah Graham Kenan professor and chair of genetics, and director of the UNC Genome Science Center. This grant will look for complex traits predisposing populations to cancer and other diseases.

Flash back 12 years to 1992 when UNC Lineberger first gained national recognition for innovative collaborative science with its Specialized Program of Research Excellence (SPORE) in breast cancer. The UNC SPORE continues to approach breast cancer from many angles: laboratory, clinical and population sciences working in Chapel Hill and throughout North Carolina. These scientists developed a coordinated approach that has yielded innovative therapies, such as Intraoperative Radiation Therapy that gives a dose of radiation directly to the tumor while the patient is undergoing surgery. Microarray technology holds promise of allowing doctors to predict the course of breast cancer and give more aggressive therapy to those patients at increased risk for recurrence. The North Carolina Breast Cancer Screening Program established lasting programs in rural health departments in medically underserved counties so that older African-American women continue to have increased access to screening mammograms. Findings from the Carolina Breast Cancer Study and the Long Island Breast Cancer Study have shown how dietary and physical exercise can affect breast cancer risk.

UNC Lineberger now holds a second SPORE in GI cancers, the subject of our cover story. The UNC collegial spirit drives much of this innovation but many of the partnerships would not have gotten off the ground without private gifts to the Center which enabled brilliant faculty teams to get their vital first results. It is your support that has made us competitive.

The article about Don Baucom's "Can Thrive" study is another wonderful testimony to the effectiveness of private funding, in this case our seed grants program established by our Board of Visitors in 1986. Dr. Baucom is a UNC professor of psychology, and his study began as a $25,000 Lineberger seed grant funded in 2002. He successfully leveraged this initial support into a five-year $2.5 million grant from the National Cancer Institute. Now that is return on investment!

Your gifts to the Center are tremendously important. Whether you have made a gift in honor or in memory of someone, a planned gift or you have supported or participated in a special event, your support fuels the enterprise of science and helps UNC Lineberger develop better therapies for patients and increase our citizens' use of effective cancer screening. Your vision informs our mission and we thank you.


UNC LINEBERGER COMPREHENSIVE CANCER CENTER

UNC Lineberger is designated a comprehensive cancer center by the National Cancer Institute.

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## Reconstructive Surgery


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surgery. "I can't perform reconstructive surgery successfully without knowing exactly what is most important to my patient—exactly how he or she would most like to live beyond his or her disease."

Adds Lynn Damitz, assistant professor of surgery, "Removing the cancer is the most important thing, of course. Then we can focus on restoring function as well as the external appearance or 'gift wrap' (aesthetics). We're the silver lining that makes patients as close to normal as we can."

### Complicated Procedures

The most complicated reconstructions are free flaps, where a piece of tissue is brought from one area of the body to another, and the donor blood vessels are sewn into a new blood supply at the recipient site, Shores explains. "This can provide bone from the lower leg to reconstruct the jaw or soft tissue from the forearm to create a new tongue, giving patients the ability to eat and speak after resection of a massive oral cavity cancer."

Another type of flap is the transverse rectus abdominis myocutaneous (TRAM) flap. Scott Hultman, chief and program director of plastic surgery, uses this procedure to reconstruct oncologic defects in all areas of the body. His specialty is breast reconstruction for patients with mastectomy defects. "At the time of mastectomy, 'tummy tuck' tissue is used to reconstruct a natural, supple breast, while improving abdominal contour," he explains.

*Some of the reconstructive surgery team* (left to right): *Drs. Scott Hultman, Mariona Couch and Carol Shores. Not pictured are Drs. Lynn Damitz, William Shockley, Glenn Minsley and Clara Lee.*

Symmetry procedures (breast reduction, augmentation, or lift), nipple reconstruction and secondary reshaping are performed 3 to 6 months later.

Plastic prosthetics also are used to replace areas removed for cancer. These include upper dentures that close or obscure an opening between the mouth and nose left after a maxillary cancer is removed, prostheses that click onto steel posts embedded in the skull, or orbital melages that replace the eye and periorbital skin after removal of an orbital or sinus tumor. Glenn Minsley, associate professor and a prosthodontist handles this area.

### Team Effort

With so many experienced surgeons with varied areas of expertise, patient care is outstanding, says Bill Shockley, professor of otolaryngology/head and neck surgery who does both tumor removal and facial reconstruction. "We work together to ensure the best patient outcomes."

Perhaps free-flap specialist Marion Couch, assistant professor of otolaryngology/head and neck surgery, puts it best: "There are a lot of people pulling on the oars."

## Team Approach

*continued from page 1*

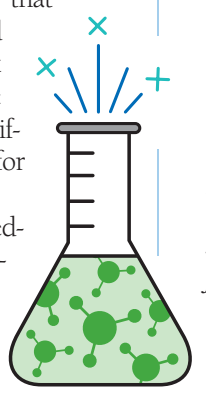
outcomes of 1,000 colon cancer patients from 33 North Carolina counties.

"We have the idea that the best predictors of cancer outcome are characteristics of the cancer itself, not simply the treatment that patients receive," he continues. "We also think that a careful study of characteristics of the cancer might help explain the disparities that we see in colon cancer outcome by race."

***2. Molecular Changes in the NFkB Pathway in Response to Chemoradiation Therapy in Rectal Cancer****, Al Baldwin, PhD, principal investigator; Carolyn Sartor, MD, co-principal investigator.*

There are two major challenges in treating colorectal cancer relative to standard radiation and chemotherapy: resistance to treatment and dose limitations. To address those challenges, this team is looking at molecular changes occurring during chemo-radiation therapy of rectal cancer.

When activated by chemotherapy or by radiation, NF-kappa B's anti-cancer mechanism kicks in and suppresses the effectiveness of these cancer treatments. NF-kappa B is a protein that attaches to DNA inside cell nuclei and turns genes on and off. This project involves Phase I clinical studies and basic translational experiments that could significantly improve therapeutic approaches for advanced colorectal cancer.



Bert O'Neil, assistant professor of medicine, is a medical oncologist and an investigator working with Baldwin's team. He also is running a developmental project under the SPORE investigating the role of NF-kappa B in the pathogenesis of hepatocellular carcinoma, cancer that arises from the major cell type found in the liver.

"I hope to determine whether certain molecular mechanisms which have not been studied in GI cancers underlie resistance to radiation," he says. His 100-subject study will try to "identify resistance mechanisms which can be overcome by new drugs and improve the chance of cure or the effectiveness of palliative treatments."

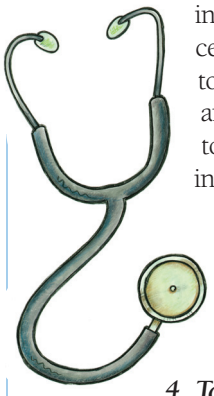
***3. Investigation of ERBB Signaling in Colorectal Cancers During Liver Metastasis,*** *David Threadgill, PhD, principal investigator; Benjamin Calvo, MD, co-principal investigator.*

David Threadgill, assistant professor of genetics, and Benjamin Calvo, chief of surgical oncology, are exploring new ways to mitigate and prevent metastatic colon cancer, which affects 135,000 Americans a year. Thirty-eight percent of these patients will die of metastatic cancer—most often in the liver, lung or bone.

Their research targets ERBB, a family of receptor tyrosine kinases that includes EGFR (epidermal growth factor receptor) and is involved in cell growth and differentiation. Tyrosine kinases are enzymes that modify other proteins, making them active and frequently transmitting signals within cells. Abnormal activation of ERBB receptors is associated with many cancers and EGFR is involved in tumor development and metastasis.

"Our project is to investigate biomarkers for response to a molecule-targeted therapy against the EGFR during colorectal cancer metastasis and to identify alternative targets for EGFR-resistant cancers for new therapeutics," Threadgill explains.

Using a combination of clinical samples and pre-clinical mouse models, Threadgill's team will



investigate how metastatic colon cancer uses EGFR and other ERBB receptor signaling to migrate to the liver and to identify markers for response to dual EGFR/ERBB2 inhibitors used in the treatment of metastatic lesions.

"By identifying potential new ways to treat metastatic colorectal cancer," Threadgill continues, "we can prevent or reduce metastasis and improve survival rates."

***4. Targeting the RAS-ERK Pathway for Colorectal Cancer Treatment****, Channing Der, PhD principal investigator; H.J. Kim, MD, co-principal investigator.*

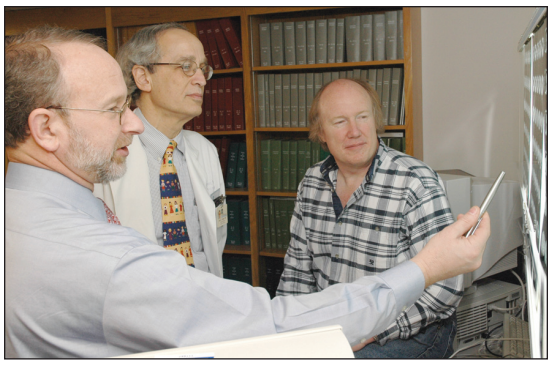
Channing Der, professor of pharmacology, is investigating the novel therapies targeting the Ras oncogene, which promotes tumor development and is mutated in half of all colon cancers.

Currently drugs that inhibit kinases—proteins that have been the most successful targets for novel anti-cancer drug discovery—have been developed as possible anti-Ras drugs. Der's team hopes to discover if these drugs are effective in treating colon cancers in which Ras is mutated. The team also will use gene profiling analyses to find genetic markers that identify patients who will respond to these drugs.

"The estimated number of new cases for colon cancer for 2004 was 106,370, with 56,730 deaths," Der says. "Therefore, the need for improved approaches for colon cancer treatment is acute."

***5. Determination of the Role of Fucosyltransferases in Colorectal Cancer Initiation and Progression****, Brent Weston, MD, principal investigator; Robert Sandler, MD, MPH, co-principal investigator.*

Associate professor of medicine and pediatric oncologist Brent Weston's work focuses on a class of molecules located on the surface of the cell that seem to be related to the formation of colon and rectal cancers. These compounds, called fucosyl-



*GI SPORE leaders* (left to right)*: Rich Goldberg, Joel Tepper and David Threadgill. Not pictured is Robert Sandler.*

transferases (FUT), appear to be present in high levels in many patients with these cancers, but their significance has never been fully explored.

Weston's team will explore possible interactions between FUTs and known associations including diet, use of certain pain medications and biological characteristics of the specific tumors. They will evaluate data collected from a large number of patients with colon and rectal cancers who participated in other studies.

"Finding these associations may allow us to understand who is at higher risk of developing colorectal cancer, and thus use different approaches to treat or prevent these cancers in large populations," says Joel Tepper.

He adds, "There is also a real possibility that using specific drugs to attack the FUTs on the tumor cell could be an effective way to treat certain of these tumors."

### The Benefit

The SPORE is designed to produce benefits to patients, and specifically goes beyond the lab in each of these projects. Each segment of the SPORE is designed to include a clinical application so there's direct benefit to cancer patients.

# *Tickled Pink Event Raises Over $40,000*

A sold-out crowd of 250 women attended *Tickled Pink*, a new fund-raising event to benefit women's cancer research at UNC Lineberger Comprehensive Cancer Center. Dr. Lisa Carey, co-director of the UNC Breast Center, thanked event co-chairs Missy Julian-Fox and Margie Haber and their terrific volunteer committee: Betty Bouldin, Julie Brannon, Pat Evans, Gail Fearing, Pam Heavner, Lisa Jones, Nancy Mills, Linda Perry, Dianne Pledger, Leigh Raynor, Anne Robinson, and Susan Skolsky. Plans are underway for two events in October 2005.

*Special thanks* to The Chapel Hill Restaurant Group (411 West, Squid's, Spanky's, and 518 West) who generously donated the Tickled Pink lunch with kudos to Micky Ewell, Greg Overbeck, Manager Jamie LaForce, and Chef Andy Wilson.

*Thanks also to our generous sponsors:* **Cotton Candy ($2,500+):** *Chapel Hill Restaurant Group, Franklin Street Partners, Jennings and Company,* and *Linda and Roger Perry.* **Cherry Blossom ($1,000+):** *Bell Leadership, Central Dermatology Center, Gail Fearing, Missy Julian-Fox and Michael Fox, The Home Team, Lisa and Steve Jones, Laughing Turtle, Nancy and Steve Mills, John and Cyndy O'Hara,* and *Susan and Steven Skolsky.* **Peppermint Stick ($500+):** *A Better Image, Balbirer and Coleman, Kathy Clemmons, Betty and Tom Bouldin, Chelsea Theater, Inc., Margie and Tom Haber, Sidna Rizzo, Pam and Jim Heavner, Purple Puddle, Witherspoon Roses,* and *Zinn Design Build.*

*Top photo:* Tickled Pink Committee members pause for a moment before the event. *Bottom photo:* Committee member Linda Perry takes a tray of pink seafood chowder to her table of guests.

# Profile

Forget Donald Trump's "The Apprentice" or ESPN's "Dream Job." Bob Sandler is doing the only job he's ever wanted.

"I have my dream job," he says. A gastroenterologist and chief of the Division of Gastroenterology and Hepatology at UNC, Sandler says, "I can't imagine another job."

## His Blue Heaven

As a kid growing up in Pittsfield, Mass., Sandler admired his doctor and decided to become one. He majored in biology at Union College and graduated from Yale University School of Medicine. He came to Chapel Hill to complete a GI Fellowship in 1978. And he never left.

"I came here for training in GI with the intention of leaving after training," he says. "But I found that the medical center was exceptional and the community was a great place to raise a family."

## A Perfect Fit

Sandler's work appeals to him for many reasons. "I chose gastroenterology because we are involved in the care of patients with diseases of many organs—esophagus, stomach, liver, gallbladder, pancreas, colon. I like the diversity."

He elected to study cancer because the condition is common and he wanted to make a difference.

"One of the things that I am trying to do is to get the word out that colon cancer is common—but it is also preventable," he notes. "In fact, colon cancer is one of the most preventable cancers if we find it early. Fortunately we have very good screening tests such as colonoscopy that make it possible to find colon cancer in very early stages when it is curable. We can even prevent people from getting colon cancer by removing polyps during colonoscopy."

This is important because colon cancer is the second leading cause of cancer death in North Carolina, second only to lung cancer. "More people in North Carolina die of colon cancer than breast cancer or prostate cancer, a fact that surprises most people," he says.

## The Cutting Edge

Sandler's research focuses primarily on the environmental factors that cause colon cancer—things like diet, physical activity, medications. "I am also interested in the manner in which genes interact with our environment to cause colon cancer," he says. "Someday we may be able to make specific recommendations to people about their diet based on their genes."

Focused as he is on long-term research goals, it's the daily variety that energizes and inspires him.

"My job is different every day," Sandler asserts. "I see patients, mentor graduate students and fellows, conduct research, consult for non-profits and for pharmaceutical companies, sit on national committees, travel, serve as the chief of the best GI division in the country. I have great colleagues and interesting patients."

The most exciting part? Being on the cutting edge. "My colleagues and I are constantly contributing new knowledge to the field and it is exciting for me to work in an environment where new discoveries are made every year," he says.

Sandler's wife Dale is chief of the epidemiology branch at the National Institute of Environmental Health Sciences and a Lineberger faculty member. They have two sons: Michael, a freshman at Washington University in St. Louis, and David who will start law school at Columbia in August.

# Briefs

## Fruits, Vegetables May Decrease Risk Of Some Breast Cancers

Eating 35 or more servings of fruits and vegetables each week decreased postmenopausal women's risk of a specific type of breast cancer tumor—estrogen-receptor positive—by 36 percent. The results came from an analysis of the dietary habits of women who participated in the Long Island Breast Cancer Study Project, a multidisciplinary, multi-institutional collaboration to identify environmental risk factors for the disease.

Marilie Gammon, professor of epidemiology in UNC's School of Public Health and a Lineberger member, is the study's principal investigator along with Mia Gaudet, a doctoral student in the department of epidemiology and first author of the study reported in *Cancer Epidemiology Biomarkers & Prevention.*

Said Gammon, "All women, particularly perimenopausal and postmenopausal women, should include five servings of fruits and vegetables in their diet each day since hormone-sensitive tumors are the most common tumors among American women." The reduced risk did not apply to premenopausal women.

Eating leafy green vegetables such as spinach or greens, and colorful vegetables such as carrots, squash, sweet potatoes, tomatoes or peppers can help since these foods are high in nutrients such as the carotenoids, lutein, lycopene and alpha and beta carotene.

## Lung Cancer Therapy Advances

Targeted, high-dose radiation therapy and two different chemotherapy programs delivered with or before radiation show promising preliminary results for patients with Stage III inoperable lung cancer, according to research by clinical investigators at UNC Lineberger and a consortium of clinical investigators at Duke and Wake Forest universities. The reports were published in the *Journal of Clinical Oncology.*

Stage III non-small-cell lung cancer means that the tumor is confined to the chest, but is not able to be surgically removed. Non-small-cell lung cancer accounts for approximately 85 percent of all lung cancers with 30 to 40 percent of these patients presenting with inoperable Stage III disease.

One regimen, involving 29 patients at UNC, included an escalated dose of thoracic radiation therapy and concurrent chemotherapy with carboplatin and paclitaxel. The overall response rate was 60 percent, with a median survival time of 24 months. The other regimen, involving 44 patients at UNC, Duke and Wake Forest, involved chemotherapy, using carboplatin/paclitaxel or carboplatin/vinorelbine followed by an escalated dose of thoracic radiation therapy. The overall response rate was 60 percent with a median survival time of 18 months. Paclitaxel and vinorelbine disrupt cell division and carboplatin disrupts cancer cells growth. Both drugs cause cell death.

"Patients who are told that surgery is not possible for their non-small-cell lung cancer still have an option for cure or longer survival," said Mark Socinski, associate professor of medicine and UNC thoracic oncology program member, the principal investigator for one of the studies.

## Molecular Markers of Aging Identified

As cells and tissues age, the expression of two proteins called p16INK4a and ARF dramatically increases. This increase in expression, more than a hundredfold in some tissues, suggests a strong link between cellular aging and the upregulation, or increased production, of p16INK4a and ARF, according to new research published in the *Journal of Clinical Investigation* from Lineberger member Norman Sharpless, the senior author of the study and assistant professor of medicine and genetics.

"At the very least, our work suggests that looking at the expression of one or both proteins will make a great biomarker of aging—a tool to clinically determine the actual molecular age of people, as opposed to just their chronological age," he says.

Knowing the molecular age of a tissue may also enable physicians to select the "youngest" most viable tissues and organs for transplantation, to predict how well a patient will heal after surgery and,

# Keeping Relationships Strong During a Breast Cancer Diagnosis

UNC Lineberger's commitment to basic and applied research into the physical aspects of cancer is well known. But the Center is dedicated to treating the whole patient and the patient's family as well. And that requires addressing the psychological components of cancer diagnosis and treatment.

"I was struck by how breast cancer is a more 'relational' cancer because it's so embedded in a couple's relationship," explains Donald Baucom, professor and director of clinical psychology and a member of UNC Lineberger.

*A breast cancer diagnosis affects committed relationships in three ways:*

***Emotionally***–Both partners might worry, feel anxious, and get depressed.

***Functionally***–Roles may change during treatment, putting men in new roles as family managers, child-care providers or meal preparers.

***Physically***–New issues arise regarding physical intimacy and 30 percent of couples develop sexual difficulties.

Mitigating these negative effects is crucial in a woman's recovery, Baucom says. "Women who've been diagnosed with early stage breast cancer report that the single most beneficial thing to them is emotional support from their spouse, yet that often gets lost in the process," Baucom says.

*Can Thrive principal investigators Dr. Don Baucom (UNC) and Dr. Laura Porter (Duke).*

That's why he's undertaken a five-year, $2.5 million study called "Can Thrive" to help couples ease the distress accompanying a diagnosis of early stage breast cancer—and adapt constructively to the diagnosis. The NCI funding grew from an initial UNC Lineberger seed grant-funded pilot project that leveraged into the federal support.

It involves 292 recently diagnosed women who are married or in other stable, committed relationships. A joint project between UNC Lineberger and Duke University, the study's participants are drawn from women receiving treatment in the Triangle area.

*To determine the effectiveness of different types of counseling and education, participating couples receive one of the following interventions:*

***Cancer-focused relationship enhancement***–Six sessions with a health education counselor approximately every two weeks.

***Couple's cancer education***–Six educational sessions on breast cancer, its treatment and side effects.

***Cancer-related Internet and community resources***–Lists of community resources and contact information for support groups.

All couples complete a variety of measures at pre-treatment, post-treatment, and six and 12 months following the end of their primary study participation. In order to make the treatment available to a wide range of couples, it is offered free of charge and couples are paid for their participation.

Couples in the relationship enhancement treatment learn to make better decisions about treatments and therapies, how to cope with personal issues like telling friends, and how to deal with financial matters. They also receive assistance in re-evaluating their lifestyles and goals.

Most importantly, perhaps, they receive training on effective communication to avoid "protective buffering," a common situation that arises when a partner tries to shield the other from his or her own feelings or distress.

"If you're both trying to protect each other from your feelings, it just won't work," Baucom says.

"This intervention attempts to help couples deal with what they have to confront and optimize the results. When you open up to each other and support each other, you go through the challenge together. And that has the potential of promoting a better outcome for the patient and the partner."

by being able to characterize the regenerative ability of a patient's bone marrow, predict future toxicity of chemotherapy in a cancer patient.

## Arthritis Treatment May Reactivate Virus Responsible for Some Lymphomas

Patients treated with methotrexate for rheumatoid arthritis or the muscle disease polymyositis may be more likely to develop certain types of cancer because of a reactivated virus. The cancer incidence is rare, however—fewer than one in 1,000 per year in methotrexate-treated patients.

The treatment may promote the development of Epstein-Barr virus (EBV)-positive lymphomas in patients with these diseases by reactivating latent EBV and by suppressing the immune response, according to research of a team lead by Shannon Kenney. Kenney is Sarah Graham Kenan professor of medicine and microbiology and immunology and a member of UNC Lineberger.

EBV-positive lymphomas occur more frequently in rheumatoid arthritis and polymyositis patients taking the drug methotrexate than in patients treated with other equally immunosuppressive drugs. While researchers did find an association between increased levels of EB virus in the blood of patients with rheumatoid arthritis receiving methotrexate, the benefits of methotrexate for treatment of this disease outweigh the very low risk of EB virus-positive B-cell lymphoma in patients treated with this drug. The report appeared in the *Journal of the National Cancer Institute.*

## *UNC Lineberger Honors 2004 Oncology Nursing Excellence and Clinical Services Excellence Award Winners*

The UNC Lineberger Comprehensive Cancer Center awarded its 2004 Oncology Nursing Excellence Awards and Clinical Services Excellence Awards to six staff members at an October 27 reception. The awards are in recognition of excellence in care for cancer patients.

Barbara Kok, lead nurse for the Bone Marrow and Stem Cell Transplantation Outpatient Clinic, received the top Oncology Nursing Excellence Award. Dawn Hardison, a clinical business associate in the pediatric, adult hematology/oncology and surgical oncology clinics, took top honors for the Clinical Services Excellence Award.

Also receiving nursing honors were Sylvia Wrenn, nurse coordinator for the Head and Neck Oncology Program; and Tina Shaban, coordinator for the Patient and Family Resource Center. Laura Miller, program assistant for the Head and Neck Oncology Program and the Leukemia, Lymphoma and Myeloma Program; and Shirley Gentry, pharmacy technician for oncology outpatient clinics, received honorary Clinical Services Excellence Awards.

The Oncology Nursing Excellence Award is named in memory of Charmayne Gray, a UNC Lineberger oncology nurse who died in a car accident in 2002.

*Top photo, left to right:* Bobbi Marks, administrative director, oncology services; Dr. Shelley Earp, director, UNC Lineberger Comprehensive Cancer Center; Justin Gray, Charmayne Gray's son; Barbara Kok, winner, Charmayne Gray Oncology Nursing Excellence Award; and William Gray, Charmayne Gray's husband.

*Bottom photo:* Dr. Richard Goldberg, associate director of UNC Lineberger, chief of the division of hematology/oncology and director of oncology services for UNC Health Care, presented the service award to Dawn Hardison.

# Lineberger

## UNC Lineberger co-hosts SPORE Breast Cancer Meeting

UNC Lineberger, along with Duke Comprehensive Cancer Center, hosted the meeting for the 10 National Cancer Institute-funded Specialized Programs of Research Excellence in breast cancer. Workshop participants discussed new ways to diagnose and classify breast cancer. In addition, novel clinical trials were planned for a national inter-SPORE network.

*Pictured, left to right* are four SPORE principal investigators: Dr. Shelley Earp, UNC Lineberger; Dr. Nancy Davidson, Johns Hopkins; Dr. Kirby Bland, University of Alabama Birmingham; and Dr. Kim Lyerly, Duke.

## In Memory

*Katherine Wilson, a 28-year-old patient from Morganton, NC, died February 16, 2005 at her home in Chapel Hill surrounded by her family. Katherine was a 2004 UNC School of Nursing graduate and a key advocate for the new NC Cancer Hospital. She eloquently made the case for the new hospital and stood with Governor Easley when he signed the bill authorizing the funding of the new facility. She touched and enriched the lives of so many. Her courage, tenacity and strong spirit will always inspire all who knew her. Katherine is pictured here with her family at the 2004 Lineberger Club luncheon at which she spoke.* Front, left to right: *mother, Ann Wilson; Katherine; boyfriend Brian Wood.* Standing left to right: *brother, Fletcher; father, John; brother, J.D.*

## Gynecologic Cancer Awareness Luncheon

The Gynecologic Cancer Awareness luncheon was held in September at the Embassy Suites Hotel in Cary. Close to 80 people attended the educational event. Angela Hampton, WTVD news and health anchor, served as emcee for the event that featured updates on gynecologic cancers and a question and answer session with UNC Lineberger gynecologic oncologists (*top picture left to right*): Drs. Teresa Rutledge, Wesley Fowler, Linda Van Le, John Boggess, and Paola Gehrig with Angela Hampton. *Lower picture*: UNC women's basketball coach Sylvia Hatchell with Dr. John Boggess.

## Sisters Network Walk and Health Fair

Sisters Network, a support and outreach group for North Carolina African-American breast cancer survivors held its second annual walk and health fair for its members and the community. Mary Jackson, chair of "Gift of Life" walk *(third from left on the sofa)*, is a UNC oncology social worker with the Bone Marrow and Stem Cell Transplantation Program, Senator Jeanne Lucas was the speaker for the event and is a breast cancer survivor *(second from left on the sofa)*. Others in the picture are Network officers and members.


## Lineberger Club Brunch

About 200 people gathered on Saturday, January 8 at the Kenan Center on the campus of UNC Chapel Hill for the Lineberger Club Brunch. Everyone enjoyed a delicious meal catered by Savory Fare; an inspirational and informative program highlighted by Senator Jeanne Lucas; and a lively auction, which raised over $3,000 for cancer programs at UNC Lineberger. The brunch was followed by the UNC vs. Maryland basketball game. Following the game, guests returned to the Kenan Center to celebrate a Tar Heel victory with desserts and coffee. *Pictured above:* Senator Lucas, her husband Bill and the Tar Heel Ram.

*Special thanks to the event sponsors:* Café Carolina & Bakery, Lee-Moore Oil Company, Sprint, Stock Building Supply, and Wachovia Wealth Management.

## Announcing

### Amy Etheridge Joins Development Staff

Amy Etheridge has joined UNC Lineberger as the new assistant director of development for major gifts.

A University of Georgia graduate, she began her career in development in 1996 as Fund Development Assistant for Walton Rehabilitation Hospital before joining the campaign department of the United Way of the Central Savannah River Area as Associate Campaign Director. Etheridge served as Executive Director of the Gertrude Herbert Institute of Art in Augusta, Georgia for the past six years until assuming her current position in October 2004.

## Chapel Hill Tennis Club

The Chapel Hill Tennis Club hosted its 4th Annual Lineberger Tournament and Silent Auction. Seventy-six players participated in the tournament, who, along with their guests, enjoyed lunch and the silent auction with items donated by Chapel Hill-Carrboro businesses.

# Scrapbook


## *UNC Lineberger Receives Thanks from The Leukemia & Lymphoma Society*

The Eastern North Carolina Chapter of The Leukemia & Lymphoma Society presented UNC Lineberger Comprehensive Cancer Center with an award in thanks for its research in blood cancers.

The award was presented by Marie Lauria, national trustee of The Leukemia & Lymphoma Society. She was joined by Robin Boettcher, new executive director for the Eastern NC chapter and Holly D'Addurno, patient services manager for the Society, and member of the UNC Lineberger Board of Visitors.

*Top photo, front row left to right:* Drs. Jim Bear and Dale Cowley, Leukemia & Lymphoma Society research grant recipients; Dr. Beverly Mitchell, UNC Lineberger associate director and scientific advisory board member for the Society; Robin Boettcher; Holly D'Addurno; Dr. Shelley Earp, UNC Lineberger director; Marie Lauria; and Dr. Rich Goldberg, UNC Lineberger associate director. *Second row left to right:* Dr. Bob Orlowski, Leukemia & Lymphoma Society research grant recipient; and Dr. Tom Shea, director, UNC Lineberger bone marrow and stem cell transplantation program.

*Bottom photo:* UNC Lineberger was well represented at the *2004 Light the Night* event for the NC Leukemia & Lymphoma Society. Led by team captains Tammy Allred and Rey Garcia, the team had a great time and raised $3,000 for the Society. Shown here are UNC team members.

## *UNC Lineberger Physician/Scientist Receives V Foundation Grant*


Dr. Paola Gehrig, UNC Lineberger faculty member and assistant professor of obstetrics and gynecology, received a research grant of $50,000 from Nick Valvano, CEO of The V Foundation at the Jimmy V Women's Basketball Classic which featured four of the top women's college basketball programs and raised money for cancer research. *Pictured, left to right:* V Foundation Board member George Dennis; Nick Valvano; Dr. Gehrig; and V Foundation Board member Bucky Waters.

## *Carolina Athletic Association Raises $2500 for UNC Lineberger*

Three fundraising events were held, the first of which was a 3-on-3 tournament, held in the Dean Smith Center. *Pictured above, front row, left to right:* Matt Angelo, Rachel High, Meridith Martin, Nathan Finnin. *Middle row:* Lindsay Strunk (president), Bayley Crane, DeShawn Brown, Mary Joos (chief of staff and event chair), Ginny Franks (treasurer). *Back row:* Keith Bobbitt, Charles Robinson, Roger Wespe, Russell Cearley, Justin Johnson, Nick Lovelace, William Keith (former president).

Three weeks later the *Michael Hooker 5K* was held. The event is named in memory of Chancellor Michael Hooker, who died of cancer.

Also in October, a golf tournament called *Swing for a Cure* was held. UNC Lineberger greatly appreciates the support of UNC-Chapel Hill student groups.

## *ZTA Holds 16th Annual Franklin 5K*

The UNC-Chapel Hill chapter of Zeta Tau Alpha held its 16th annual Franklin 5K, and UNC Lineberger was a recipient of the proceeds. Dr. Don Baucom, professor of psychology and principal investigator of the Can Thrive project *(see story on page 5)* spoke to the crowd.

*Pictured left to right:* Lauren Bruce and Jourdie Stuart, start committee co-chairs; Sarah Fromson, publicity chair and current president; Leigh Brown (2nd row), overall 5K chair; Alicia Quesinberry (front row), party chair; Kathryn Reed (2nd row), finish committee chair; Christy Duncan (leaning over), safety committee chair; and Lindsay Pate (right of Dr. Baucom), t-shirt chair. *Not pictured:* Ellen Withrow, publicity co-chair; and Jane Novotny, sponsorship chair.

## Would you like to make the life of a patient a little more comfortable?

The UNC Oncology Patient and Family Resource Center supports cancer patients and their families as they cope with their diagnoses and treatments, offering a variety of services from educational materials to comfort services and activities. The Resource Center staff is there to help these patients get through the long weeks of treatment and the changes in their physical and mental well-being.

We encourage you or your church or community group to donate any of the following needed items.

- *Hats, head-scarves and wigs of all colors, sizes and styles (new or gently used), for men, women or children*
- *Accessories like pins, scarves or jewelry*
- *"Coffee Table" books with colorful photos, humor, inspirational and uplifting books/ other light reading such as current magazines (within past year) or new magazine subscriptions*
- *Fresh flowers*
- *Children's items such as small crayon packs, stickers, character band-aids*
- *Individually wrapped packets of tea, coffee, hot chocolate or cup of soup*
- *Gift certificates for local grocery stores or nearby restaurants*

Items can be hand-delivered (8:00 am–5:00 pm) to the Resource Center or mailed to Ms.Tina Shaban, Patient/Family Resource Center, NC Clinical Cancer Center CB #7218, Chapel Hill, NC 27599.

Questions? Contact Tina at 919-966-3097 or tshaban @unch.unc.edu. Cash contributions to support the UNC Oncology Patient and Family Resource Center are also encouraged. Checks should be made payable to: UNC Lineberger Comprehensive Cancer Center and mailed to CB #7295, Chapel Hill, NC 27599.

## Hats with Heart

The UNC Oncology Patient and Family Resource Center partnered with the Women's Health Information Center to hold a competition to create hats for patients experiencing hair loss. *Pictured above, left to right:* Tina Shaban, coordinator, UNC Oncology Patient and Family Resource Center; Pam Baker, Resource Center program assistant; and Julie Sweedler, coordinator, Women's Health Information Center.

***The new infusion area on the third floor of the NC Clinical Cancer Center opened on March 7.*** The bright and spacious infusion area is comprised of two five-chair groupings and one three-chair area with accommodation for patients and a companion. Four private spaces are also available for patients and a companion. Additional space on the floor is available for further expansion.

## A gift that keeps on giving...

*What better way to commemorate Mother's Day, Father's Day, a milestone or pay tribute to a life well lived than by giving a gift that will make a difference in the fight against cancer. With your tax-deductible gift of $25 or more to UNC Lineberger, we'll send a personalized greeting card inscribed as you wish to the person of your choice. Your gift will not only touch the heart of the recipient, but it will also touch the lives of thousands of people across the state of North Carolina. Tribute gifts provide valuable support for our research, treatment and patient support programs, bringing new hope to the quest for a cure for cancer. Several card styles are available.*

*Please visit* ***www.unclineberger.org*** *for more information about our tribute card program, or call 919-966-5905.*

# calendar *of events*

***May 5***
**Prostate Cancer Luncheon.** Raleigh, NC.

***May 10***
**UNC Lineberger Reception.** Greensboro, NC.

***May 11-12***
**UNC Lineberger 29th Annual Scientific Symposium.** Chapel Hill, NC.

***June 11***
**NC Triangle Komen Race for the Cure.** Raleigh, NC.

***September 16***
**UNC Lineberger Board of Visitors Meeting.** Chapel Hill, NC.

***October 6 and October 11***
**Tickled Pink Women's Cancers Luncheon.** Chapel Hill, NC.

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