

cancer lines



the inside line up



4 Alexander "Sasha" Kabanov, PhD, is shaping a new scientific legacy



5 Ned Sharpless, MD, appointed Deputy Director



6 Jean Kitchin gives back by getting the word out



7 Ken and Frankie Lee want to jump start melanoma research

New clinical programs provide patients, referring doctors with focused expertise



Patient Dr. Lori Hunter (center), pictured here with WNCN anchor Melanie Sanders (left) and Dr. Carey Anders (right) is benefiting from a new clinic focusing on patients with brain metastases.

cells in bone marrow. Bone marrow is the soft, spongy tissue found inside most bones that help make blood cells. Under normal circumstances, plasma cells help the body fight infection by producing antibodies. In multiple myeloma, plasma cells grow out of control in the bone marrow and form tumors in the areas of solid bone. The growth of these bone tumors makes it harder for the bone marrow to make healthy blood cells and platelets.

The disease causes anemia and can cause bleeding problems, brittle bones that are more likely to break, kidney problems, and, if the bones in the spine are affected, tumors can put pressure on nerves, causing a range of neurological symptoms. "The multiple myeloma program at UNC incorporates resources that we can bring to bear on every aspect of the disease," says Pete Voorhees, MD, the clinic's director.

UNC, like other academic medical centers, is a destination for patients who are facing complex health situations as part of, or in addition to, a cancer diagnosis. Others find themselves in need of more specialized expertise because their cancer is rare or has side effects that impact their quality of life. To meet the needs of these patients and their hometown physicians, UNC Lineberger and UNC Cancer Care have brought together experts to offer specialized clinics that serve the needs of patients who are facing complex situations as part of their cancer diagnosis and treatment.

Multiple Myeloma

Multiple myeloma is one complex cancer for which UNC has started a specialized clinic. Multiple myeloma starts in the plasma

Brain Metastasis Specialty Clinic

In addition to seamless transition for patients who may be eligible for a bone marrow transplant, "We work with neurosurgeons, neuro-interventional radiologists, surgeons and physical therapists at the UNC Spine Center, with orthopedists to assess fracture risk or stabilize fractures brought on by the disease, with neurologists specializing in neuropathies, as well as with nephrologists to manage kidney problems experienced by some myeloma patients," he says.

For patients, access to multiple specialists and resources in a single location — including access to clinical trials — can help them live better, longer. Asheville artist Ann Hartline, a former cardiac nurse, has metastatic breast cancer. She recently marked

continued on page 2

Art donors bring beauty and perspective to Lineberger Building, N.C. Cancer Hospital



A generous donation of paintings from Dr. Nancy Farmer and Dr. Everette James brings new perspective to the Karen Henningsen Board Room in the Lineberger building. The American paintings span the period between 1890 and about 1950 and include works by the North Carolina artist James Augustus McLean and 19th century landscape painter George Innes. Dr. James received part of his medical education from UNC School of Medicine, and Dr. Farmer earned her BA, MA, and PhD at UNC-Chapel Hill.

continued on page 3



New Clinical Programs

continued from page 1

five years of living with metastatic disease with a trip to Italy. She has participated in two clinical trials for patients with brain metastases at UNC Lineberger. She says, “The clinical trials over the past years gave me options and opportunities I wouldn’t have otherwise had.” (For more of Ann’s story see: <http://unclineberger.org/news/ann-hartline-living-life-large-with-metastatic-breast-cancer>).

“That is what we are trying to do with the brain metastasis specialty clinic,” says Carey Anders, MD, who with Timothy Zagar, MD, from radiation oncology, and Matthew Ewend, MD, chair of neurosurgery, is piloting an integrated approach for patients with breast cancer brain metastases and lung cancer.

“We can provide continuity of care, all of the appropriate scans and treatments, top quality radiation oncology and surgical expertise – including Cyberknife® — as well as a seamless transition into clinical trials,” she adds. Dr. Anders, who received a Damon Runyon award last year, also runs a laboratory focused on developing and testing new treatments for breast cancer brain metastases with the goal of getting new drugs into clinical trials over the longer term.

Bladder Cancer Center of Excellence

Quality of life is also a goal for the bladder cancer center of excellence and the geriatric oncology clinic—both help patients address special challenges.

“We have assembled a critical mass of experts here at UNC,” says Raj Pruthi, MD, chief of urological surgery and a center co-director. “In addition to medical oncologists with specific experience in bladder cancer and access to leading-edge clinical trials, our urological surgeons and radiation oncologists have a lot of experience with bladder-sparing treatment protocols and other options that help many patients preserve quality of life without negatively impacting their long-term outcomes or limiting future decisions in the event of a recurrence.”

Dr. Pruthi points out that UNC has three faculty

physicians on the scientific advisory board of the Bladder Cancer Action Network. “This is a fantastic organization and our interaction with the community of patients and survivors helps us understand how important it is to preserve quality of life whenever we can, and to address those issues as we help newly-diagnosed patients navigate the range of treatment options and decide what is best for them.”

Geriatric Oncology Program

The situation is a bit different with older patients, but the aim of preserving quality of life is the same.

“Older patients with cancer can also be undergoing treatment for hypertension, diabetes, cardiovascular disease or other problems. This can make it more complicated to treat their cancer and can really impact patients’ day to day life,” says Hy Muss, MD, director of the Geriatric Oncology Program. “We are now offering a consultative clinic for patients aged 70 and older that can provide patients and referring doctors with information focused on personalizing treatment for patients — particularly when there are concerns about treatment tolerance and potential benefits.”

Dr. Muss notes that UNC’s Institute on Aging, the UNC Center for Aging and Health, UNC’s Palliative Care Consult Service and Supportive Care Consultation Service, along with the UNC Comprehensive Cancer Support Program and the Geriatric Oncology Fellowship Program, provide a



A new consultation clinic led by Hy Muss, MD, shown here with Betsy Breckinridge and Shani Alston, focuses on the special needs of patients aged 70 and older

wealth of resources to draw upon, helping their team optimize treatment for older adults.

“It’s really a testament to our faculty physicians at UNC Lineberger, who see opportunities for patients with unmet needs. They put their heads together to develop unique services and specialty clinics,” says Shelley Earp, MD, director of UNC Lineberger and UNC Cancer Care.

“We are doing some truly innovative things in our clinical program. Our faculty and staff are focused on the best cancer care that takes into account the patient’s specific needs and the concerns of their referring doctor. Having a cancer diagnosis is not easy and we want to assure each patient that they are accessing the very best care,” he adds.

More information about these and all UNC Cancer Care clinical services can be found at <http://unclineberger.org/patientcare>.

Lymphedema therapy provides relief for cancer patients



Lymphedema Program staff (L–R) Val Collins, Dorie Laing, Theresa Gilliam

“It’s a lifesaver.” That’s how Frances Patterson, a breast cancer patient, describes the therapy she receives for lymphedema through the UNC Comprehensive Cancer Support Program.

Lymphedema is the swelling and soft tissue changes that occur in the area of the body where an injury has occurred to the lymphatic system. Fluid builds up in soft body tissues and causes swelling. It sometimes follows breast cancer or other types of cancer surgery. Lymphedema usually affects an arm or leg, but it can also affect other parts of the body, such as

the trunk, breast or face.

Tom Kennery, a patient with melanoma, says, “The lymphedema therapy keeps my leg functioning.” He explains, “After cancer surgery I knew that it was going to be a ‘new normal,’ but I wanted that new normal to be as close to the old normal as possible. I’m a walker, and the therapy helped me get back to my normal activities a lot quicker.”

Judy Reaves, a breast cancer patient, recently completed therapy after a sudden onset of lymphedema left her arm swollen and inflamed. “It worked wonders,” she says.

The UNC Comprehensive Cancer Support Program includes three lymphedema therapists, all certified by the Lymphology Association of North America (LANA): Val Collins, Theresa Gilliam, and Dorie Laing.

Val and Theresa are members of UNC Health Care’s Department of Occupational and Physical Therapy, and Dorie has advanced training as a massage therapist. The three see UNC patients as well as those from across the Triangle area.

Therapists individualize treatment for each patient, and the team offers a free monthly class designed for patients at risk for lymphedema following cancer surgery. The class is offered the first Monday of each month from 1:00–2:00 pm. Val explains, “We teach people how to take care of themselves. Ultimately, our goal for them is independent management.”

continued on page 7



Dr. James said, “We have been collecting art since the mid-1970s and realized that we hadn’t donated any paintings to UNC Hospitals or UNC Lineberger. This room is a place where a broad range of audiences can see the art.”

A colorful collection of characteristic N.C. Pottery, also donated by Dr. James and Dr. Farmer, makes a bright splash in the main lobby of the N.C. Cancer Hospital.

The soaring ceiling of the N.C. Cancer Hospital lobby showcases a mobile sculpture by artist RT Morgan of West Jefferson, NC. The mobile, titled “Fly...Be Free” exhibits the characteristic aluminum forms also present in the artist’s sculpture “Balancing Act”, located in the patio atrium outside the hospital’s second floor clinic waiting area.

“Fly...Be Free” honors the memory of Edward A. Norfleet, MD, UNC ‘66, who passed away in 2010 after a six-month bout with pancreatic cancer. Dr. Norfleet spent his entire career at UNC and retired as chair of the UNC Department of Anesthesiology. He was a beloved and respected teacher and a physician of extraordinary skill, dedication, energy and compassion. He touched thousands of North Carolina patients, students and colleagues over the course of his career.

The photo diptych “Gates” was given by the family of Isabel Chiquor of Durham, an art professor at North Carolina Central University and passionate artist, who passed away in 2011 of breast cancer. Chiquor, who was treated in the N.C. Cancer Hospital, “touched the lives of everyone who knew her,” according to daughter Jennifer Knorr. “Throughout her career, she maintained that excellent teaching transforms students...at her memorial student after student said she was one of their best teachers in life and about life.”



Above: “Fly...Be Free” honors the memory of Dr. Ed Norfleet



Left: “Gates” was given by the family of Isabel Chiquor, the artist who photographed and selected the scenes depicted in the diptych.

Kelly Mansfield joins UNC Lineberger External Affairs



Kelly Mansfield has joined UNC Lineberger External Affairs as the Director of Annual Giving. In this role, she will work with individuals and organizations to generate annual support for UNC Lineberger and UNC Cancer Care.

Previously, Kelly was the Assistant Director of Annual Giving at The Medical Foundation of North Carolina, Inc. In this role, she worked with corporations, patients, employees, board members, volunteers and parents of medical students to generate unrestricted annual support for the UNC School of Medicine and UNC Health Care.

Before joining UNC, Kelly worked in medical center development at Vanderbilt University and athletic development at Wake Forest University, garnering expertise in annual giving, strategic communication, volunteer management and grateful patient fundraising.

Kelly graduated from the University of North Carolina at Chapel Hill in 2007 with a Bachelor of Science in Business Administration and Journalism and Mass Communications. Born and bred in North Carolina, she enjoys spending time with her family, traveling around the globe and cheering on the Tar Heels.

Alexander Kabanov: third-generation scientist shapes his own legacy



Alexander “Sasha” Kabanov’s road to UNC began generations ago. The internationally-known expert in polymer genomics comes from a line of eminent Russian scientists. Following in the footsteps of his great grandfather, a rector/provost at a Russian university; his grandfather, a university department chair; and father, a highly decorated scientist and member of the Russian Academy of Sciences, he is now shaping his own scientific legacy.

One of the newest faculty members at UNC Lineberger and the UNC Eshelman School of Pharmacy, he is co-director of the Carolina Institute for Nanomedicine.

Dr. Kabanov, the Mescal Swain Ferguson Distinguished Professor of Pharmacy and Director of the Center for Nanotechnology in Drug Delivery, says, “My father is my greatest mentor. For a number of years I collaborated with him, and from him I got the interest in polymer science.” Kabanov followed his father’s path, graduating from the prestigious Moscow State University. This interest led to 26 US and over 100 patents worldwide. He has been honored with the USSR’s highest award for young scientists, the Lenin Komsomol Prize, and a US National Science Foundation Special Creativity Award and Career Award. He also co-founded Supratek Pharma, Inc., which has invested over \$50 million in the development of innovative cancer therapies.

Dr. Kabanov’s work established the field of polymer genomics, which studies the effect of polymers and

nanomaterials on cellular responses to develop safe and efficient therapeutics. He is a pioneer in the use of nanotechnology to treat cancer.

After earning his doctorate, Dr. Kabanov worked with the USSR Ministry of Health at the All-Union Research Center of Molecular Diagnostics and Therapy while continuing to work at Moscow State.

During this period, he collaborated with several eminent Russian scientists including his father, Victor Kabanov, and pioneered the use of polymeric micelles in therapeutics. Micelles are molecular nano-particles with a therapeutic agent in the core, covered by a “shell.” These particles deliver therapies to cancer cells or disease target cells. They co-authored the first polymeric micelles paper in 1989.

“In 1991, the Soviet Union disappeared and funding for science, which had been relatively good, was gone. We had no funding and so I started a company with a friend of mine who went to Canada and some other colleagues.” The company, originally called Moscow Institute of Biotechnology, later became Supratek Pharma, Inc.

“What my lab discovered, with my friend who went to Canada and co-founded Supratek, was that when we mixed anti-cancer drugs with the polymeric micelles, and applied it to multi-drug resistant cancer cells, the activity of the drug on the MDR cells increased 1000 times. It was so striking we couldn’t believe it. This work ultimately led to the development of SP1049C, a drug that has completed successful Phase 1 and 2 clinical trials. We hope to begin Phase 3 trials sometime this year,” Kabanov says.

Kabanov moved to Canada, but kept an active lab in Moscow. In 1993, on a trip there just days after the Russian Parliament impeached President Boris Yeltsin after his attempt to dissolve the Parliament, he watched a crowd kill a policeman on national television. Two days after, tanks shelled the Russian White House. “I had family in Russia and Canada, so it was a tough time. I decided that I needed to look for a job in the United States, since there was more opportunity for scientists.”

In 1994, Kabanov moved to Omaha, Nebraska,

where he joined the College of Pharmacy at the University of Nebraska Medical Center. “After losing my country and my science, I needed some kind of safe haven. Nebraska was a fruitful supportive environment where I was able to build the organization that I ultimately established.”

Over 18 years, Kabanov developed internationally-recognized programs while serving as director of the UNMC Center for Drug Delivery and Nanomedicine. In 2010 he became the only chemist awarded a \$4.5 million “megagrant” by the Russian government to open the Laboratory of Chemical Design of Bionanomaterials at Moscow State University, a program aimed at recruiting a group of foreign scientists to work in Russia. His work there continues today.

“When Dean Blouin recruited me to UNC I had watched the School become one of the leading Pharmacy Schools in the United States. I knew several UNC faculty members as collaborators and friends. I realized after winning the megagrant, that if I could start a new lab in Russia, then I could also start one in Chapel Hill. When you start something new, you have an explosion of ideas and possibilities. I’m hopeful that this area with the Research Triangle Park will be a good environment for us to translate our intellectual property portfolio into clinical practice.”

Collaboration and strong friendships are hallmarks of Dr. Kabanov’s research. “Science nowadays is not one person playing in a lab. We deal with so many distinct complex technologies that are all important for success, so we must team up, we have to collaborate. It’s fantastic because you learn so much as you work with different people from different disciplines.”

The loyalty of his research team and their excitement about their projects led over 20 lab members to move with Dr. Kabanov from Nebraska to UNC. “I’m privileged and proud to be a member of the UNC faculty and UNC Lineberger, and happy to be among my old friends and am very open to build new friendships and collaborations.”



Frye receives Eshelman Professorship

The UNC Eshelman School of Pharmacy has awarded Stephen Frye, PhD, a \$1 million Fred Eshelman Distinguished Professorship. Frye is the director of the Center for Integrative Chemical Biology and Drug Discovery and a member of UNC Lineberger.

The Fred Eshelman Fund for Distinguished Professors was created in 2003 by Fred Eshelman ’72 and the Pharmacy Foundation of North Carolina. The professorship provides \$50,000 a year to support a professor’s research program.

Frye joined UNC in 2007 after a 20-year career with GlaxoSmithKline (GSK). He is co-inventor of GSK’s Avodart, a drug used to shrink an enlarged prostate gland, which is also under study for the prevention of prostate cancer.

Sharpless appointed Deputy Director of UNC Lineberger

Norman E. “Ned” Sharpless, MD, has been appointed Deputy Director of the UNC Lineberger Comprehensive Cancer Center. Dr. Sharpless is the Wellcome Distinguished Professor in Cancer Research and professor of medicine and genetics.

“Ned Sharpless is one of the most accomplished physician-scientists in America. He has repeatedly published groundbreaking translational science in the world’s top journals and, as a result, has attracted numerous large federal and foundation grants, making him one of UNC’s top funded researchers,” said Shelley Earp, MD, Director of UNC Lineberger and UNC Cancer Care.

“His scientific accomplishments are matched by his outstanding mastery of clinical medicine, molecular genetics and animal modeling, as well as his passion for making life better for cancer patients. In addition, he is a scientific entrepreneur and one of UNC’s most sought-after teachers and mentors,” Dr. Earp added.

In his new role, Dr. Sharpless will be responsible for guiding the Center’s scientific agenda across the basic, clinical and population sciences. He will also lead the strategic planning process setting the direction for the 2014–2020 time frame, in preparation for the Center’s 2015 NCI grant renewal. His previous role at the cancer center was Associate Director for Translational Research.

In addition to his clinical work as a physician, Dr. Sharpless runs a 17-person basic science laboratory that studies cancer and aging. He is co-leader of the Molecular Therapeutics Program, co-founder and co-director of the UNC Mouse Phase I Unit, and Associate Director of the UNC Center for Aging and Health. He has authored more than 100 original reports, reviews and book chapters, and is an inventor of 10 patents.



Ribisl to lead Cancer Prevention and Control Program

Kurt Ribisl, PhD, has been appointed to lead the Cancer Prevention and Control Program at the UNC Lineberger Comprehensive Cancer Center.

The program’s 45 faculty from across the UNC Chapel Hill campus design and implement research strategies to prevent cancer, improve early detection, and ease the burden of cancer on patients and their families. Faculty research emphasizes investigation

and intervention at multiple levels, including the population, community, organizational, and individual levels. Areas of focus include behavior change intervention, tobacco control, obesity prevention and control, screening promotion, cancer survivorship, cancer outcomes, health care decision-making, cancer communication, and community-based participatory research.

As program leader, Dr. Ribisl will coordinate program member effort and related Cancer Center resources that facilitate faculty research. He will work with Dr. Andy Olshan, the UNC Lineberger Associate Director for Population Sciences, and other Cancer Center senior leaders to understand all aspects of the cancer program in North Carolina and to develop novel cancer prevention, early detection, and survivorship research efforts as part of the larger UNC Lineberger mission.

Shelley Earp, MD, Director of UNC Lineberger and UNC Cancer Care, said, “Dr. Ribisl has built a nationally recognized program focused on tobacco control policy and product regulation and innovative applications of information technology for discouraging tobacco use. His well-funded research program supports novel interventions in the State and has been a magnet for graduate students in the School of Public Health. The impact of his work, particularly projects aimed at preventing youth smoking, has been felt nationally. He is an outstanding researcher with a collaborative style and will be a great asset to both the Cancer Center and the outstanding faculty members who make up his Program.”

research briefs



Using luminous mice to track cancer and aging in real-time

Researchers have long known that the gene, p16^{INK4a} (p16), plays a role in aging and cancer suppression by activating an important tumor defense mechanism called ‘cellular senescence’. The UNC team led by Norman Sharpless, MD, Wellcome Distinguished Professor of Cancer Research and Deputy Cancer Center Director, has developed a strain of mice that turns on a gene from fireflies when the normal p16 gene is activated. In cells undergoing senescence, the p16 gene is switched on, activating the firefly gene and causing the affected tissue to glow.

“With these mice, we can visualize in real-time the activation of cellular senescence, which prevents cancer but causes aging. We can literally see the earliest molecular stages of cancer and aging in living mice,” said Dr. Sharpless.

The researchers envision immediate practical uses for these mice. By providing a visual indication of the activation cellular senescence, the mice will allow researchers to test substances and exposures that promote cellular aging (“gerontogen testing”) in the same way that other mouse models currently allow toxicologists to identify cancer-causing substances (“carcinogen testing”). Moreover, these mice are already being used by scientists at UNC and other institutions to identify early cancer development and the response of tumors to anti-cancer treatments.

Read more: <http://unclineberger.org/news/sharpless-lab-uses-luminescent-mice-to-track-cancer-and-aging-in-real-time>

Hepatitis C hijacks liver cell microRNA to cause cancer

A chronic blood-borne virus that attacks the liver, hepatitis C infects more than four million in the United States and more than 130 million worldwide. The virus is currently the leading factor in liver transplantation and a major cause of liver cancer, the third most fatal cancer worldwide and the ninth most deadly in the United States. Chronic hepatitis virus infections factor into more than two-thirds of liver cancer deaths.

Researchers in the laboratory of Stanley M. Lemon, MD, professor of medicine and microbiology and immunology and member of UNC Lineberger, the Center for Translational Immunology, and the UNC Center for Infectious Disease, discovered that the hepatitis C RNA contains a site that binds directly to the microRNA within liver cells. The team has shown that the presence of miR122 is actually crucial for functioning of the virus.

“It is a relationship that is unique to hepatitis C and not seen, as far as we know, with any other virus,” said Dr. Lemon.

Because of the importance of miR122 to the replication of hepatitis C, the microRNA presents a promising target for new drugs. The pharmaceutical industry has already begun developing therapies that target miR-122.

Read more: <http://unclineberger.org/news/unc-researchers-discover-how-hepatitis-c-virus-reprograms-human-liver-cells>



Jean and Hodge Kitchin both serve on the UNC Lineberger Board of Visitors. Photo credit Garry Hodges

Jean Kitchin: giving back by getting the word out about UNC Lineberger

diagnosis with her new husband, Hodge, shortly after getting married. She says, “After completing eight years on the UNC-Chapel Hill Board of Trustees, I wanted to stay involved in an area of the university that was especially important to me. At that time, the University Cancer Research Fund was approved by the General Assembly and the forward-thinking, strong leadership at UNC Lineberger and UNC Health Care made the Lineberger board a great fit for me.”

If you want to get something done, involve Jean Kitchin UNC Class of 1970. People who know the Scotland Neck resident will say she has one setting — full speed ahead.

Her contributions to UNC Lineberger are across the spectrum. From service on the Board of Visitors to interviewing UNC researchers for local television to engaging community groups with UNC Lineberger, her contribution to expanding awareness of and support for the cancer center in her community and across the state is difficult to exaggerate!

Kitchin lost her late husband to metastatic lung cancer and then experienced a serious cancer

Kitchin, a local business owner who runs several pharmacies, got into television by volunteering to demonstrate recipes from a Junior League cookbook she worked on in the early 1980s. She loved it and ended up cohosting and coproducing a live morning show. Now, her involvement with “Tar Heel People”, a public affairs show on five N.C. stations, and two local shows in Rocky Mount gives her a place to showcase the things she cares about. At least once a year, she and her camera crew come to UNC Lineberger to film a series of interviews about the latest research and treatments coming out of UNC labs and clinics.

“The preparation is really interesting,” she says, “I study really hard to understand what they do, and it is such a priceless opportunity to ask questions on television so a broad audience can experience firsthand their passion for their work and their great care and concern for their patients. I am always in awe of these bright scientists who are trying to find better treatments and cures for all of us.”

Kitchin also works hard to make connections in the community. On a previous charity project, she met a local minister who is now a good friend. Last spring, he mentioned that he was trying to educate a group of about 300 predominately African-American men about prostate cancer. Kitchin suggested someone from UNC Lineberger. Matthew Neilsen, MD, volunteered to drive to Rocky Mount to speak on a Saturday morning. “Close to 300 men took a PSA test after hearing him speak.”

Kitchin spreads the word about UNC Lineberger wherever she can. “When a person gets diagnosed with cancer, it is so important to go to a comprehensive cancer center. At UNC Lineberger, the treatment is not only state-of-the-art, but it is given by the kindest, most caring physicians and health care professionals found anywhere.”

Anonymous gift to honor Benjamin Calvo, MD, and M. Patricia Rivera, MD

A generous donor family who wish to remain anonymous has made a \$100,000 gift to honor two exceptional UNC Lineberger faculty members, Drs. Ben Calvo and M. Patricia Rivera. The family chose to establish the Benjamin Calvo and M. Patricia Rivera Endowed Seed Grant Fund for Gastrointestinal and Thoracic Oncology.

Dr. Calvo is associate professor of surgery and chief of the division of surgical oncology. Dr. Rivera is professor of medicine and co-director of the Multidisciplinary Thoracic Oncology Program. The two physicians are husband and wife, and parents of three children.

The donor explains, “Our family is healthy because of Drs. Rivera’s and Calvo’s devotion to the art of medicine and the kindness they always extend to their patients. They see the practice of medicine as a calling, and we as a family are incredibly blessed because they came into our lives.”

They see the practice of medicine as a calling, and we as a family are incredibly blessed because they came into our lives.

“The seed grant fund we have established, recognizes these two physicians’ commitment to teaching and research by giving vital resources to the work of young physician/scientists pursuing careers in oncology. These innovative grants encourage collaboration in translational research within the supportive environment of Lineberger. We’re delighted to support the next generation of Lineberger physicians while finding answers to complex cancers.”

Seed grants are integral to advance the understanding cancer. Private philanthropy



to fund these grants offers a way for scientists to collect initial data that can then attract larger funding from more established sources.

Dr. Calvo says, “In an era when market economy places a specific monetary value on nearly all aspects of human activity, it is an act of courage, kindness and great vision to so generously spend one’s resources in risky research destined to benefit others. Through this same science, we may someday learn that courage and kindness are coded by our complex genetics as important individual survival mechanisms. Yet vision of a future, enlightened by more knowledge of human biology, speaks to a spirit able to see far above and beyond present and individual struggles. Patricia and I want to thank this incredibly generous family for their recognition of our work as well as their desire to bolster research efforts in two important cancer areas.”

Lymphedema *continued from page 2*

“Lymphedema therapy helps minimize symptoms and may limit progression,” Dorie says. “It’s similar to other chronic conditions where earlier intervention leads to best clinical and functional outcomes.” The most common types of cancer addressed by lymphedema therapy are breast, melanoma, gynecologic, head and neck, advanced prostate cancer, and testicular cancer.

“The UNC lymphedema program began about four years ago,” explains Theresa. “UNC therapists work closely and collaboratively with physicians and nurse practitioners so patients can be evaluated and treated soon after the first symptoms are noticed,” she says.

Frances Patterson explains, “My UNC radiation oncologist referred me to Val before my surgery. She wanted me to meet Val and do some preventive exercises to increase my range of motion. Val gave me exercises to do the minute I woke up from the mastectomy.”

Frances’ lymphedema occurred a year after she finished cancer treatments. Following a long international flight involving wheeling and carrying luggage and a burn to her hand, she began to experience swelling in her arm. “These injuries caused my arm to swell, so we started an intense treatment. It’s pretty much under control now,” she says.

Tom Kennery’s lymphedema developed following several procedures to remove a melanoma. “The surgeries were close to lymph nodes that didn’t heal, and that’s when the swelling started. After my therapy, the lymphedema is under control. I wear my leg garment daily. I’m getting around a lot better.”

Judy Reaves says, “I had been treated before for lymphedema in 2001 after my initial treatments for breast cancer. My arm had been fine ever since then until about a month ago. We think something bit me, and the bite caused my arm to swell and burn and become inflamed. The swelling in my arm has gone down a lot after the therapy and wearing the sleeve. I am so happy that the therapy worked so quickly and so well.”

Lymphedema therapy includes two phases: Intensive phase with a therapist followed by the Self-Management phase. The intensive phase involves four components: manual lymph drainage, compression therapy, skin care and exercise.

“The goal of manual lymph drainage (MLD) is to increase the uptake of fluid and transport the lymph to healthy vessels where it can be processed normally,” says Dorie. “A series of MLD treatment decreases the volume of the affected area. We then teach patients a simplified version as part of their home program.”

Compression therapy may be needed because the skin’s elastic fibers and lymphatic vessels are damaged in lymphedema, and the body part is at risk for fluid re-accumulation. To prevent re-accumulation, external compression is applied to the skin. Compression therapy involves wearing compression garments or wraps to reduce swelling in the limb.

“During the Intensive phase, our patients also learn all about the tools and strategies that they need to manage lymphedema on their own over time,” explains Theresa. “We provide support, as needed, to make sure that garments are in good condition and that symptoms are under optimal control.”

For more information, patients can attend the free lymphedema class. For individualized appointments, patients can ask their physician to fax a prescription for OT/PT lymphedema evaluation to (919) 489-9173 or can contact us at (919) 957-6600.

Elizabeth Sherwood, RN MS ANP-C, CCSP Coordinator for Survivorship Programs and Oncology Integrative Medicine Programs, says, “Lymphedema therapy is one aspect of oncology rehab. CCSP offers a range of services and resources to support patients and families throughout their cancer experience, including resources and programs for survivors. And thanks to wonderful donors we are able to provide the supplies, including sleeves, to patients whose insurance does not cover the cost.”

Signs and Symptoms of Lymphedema

- Aching, discomfort, soreness or pain in the affected area
- Feelings of heaviness, fullness or tightness in the skin
- Less movement or flexibility in a joint
- Clothing, bras, underwear, jewelry or shoes feel tight
- Swelling that fluctuates and may leave an indented spot in the skin when pressed
- Numbness/tingling in the involved limb

Tom and Diana Hudgens help UNC present Melanoma Patient Conference

The Melanoma Research Foundation, the UNC Division of Surgical Oncology and the UNC Department of Dermatology sponsored a Melanoma Patient Day on February 6, 2013. The educational conference, held at The Friday Center, is dedicated to melanoma patients and the people who support them and featured presentations from several UNC Lineberger faculty members and experts from around the world.



Bill Millis from High Point talks with Tom and Diana Hudgens of Raleigh at the 2012 Melanoma Patient Conference. The 2013 conference was being held at press time at the Friday Center in Chapel Hill.

In addition to the conference sponsors, Melanoma Patient Day also receives generous support from Mrs. Anne Sessoms of Chapel Hill and Mr. and Mrs. Thomas Hudgens from Raleigh.

Diana Hudgens explains, “Tom and I support this conference because we’re grateful to the wonderful doctors at UNC who have given Tom such excellent care. One of this year’s lectures has been named in memory of Tom’s lifelong friend, Ned Austell. Ned and Tom were diagnosed with their first melanomas—and their second—at almost the same times. Ned did not survive his second bout. Tom did. We think UNC Lineberger made the difference. We are happy to support this well organized and very informative conference. We are confident that people are helped by it.”

Ken and Frankie Lee support melanoma research

Ken and Frankie Lee are active members of the UNC Lineberger Board of Visitors. Their family is appreciative of the care Frankie received when she developed melanoma. In thanks, the family has established the Kenneth and Frances Lee Family Seed Grant for Melanoma Research.

Frankie says, “Since my first melanoma diagnosis in 1996, I have become acutely aware of the impact this disease has on so many. The incidence of melanoma has risen in young adults, middle aged and the elderly. Awareness, early diagnosis and UNC have saved my life and that is what I want for everyone with this deadly disease.”

Thanks to the Lee Family Seed Grant for Melanoma Research, promising melanoma research will be funded.

Seed grants provide fuel for innovative research at UNC Lineberger. The highly competitive process and rigorous review assure that only proposals of the highest promise and quality are selected. The limiting factor is funding, making private support extremely important.

Dr. Nancy Thomas, Irene and Robert Alan Briggaman Distinguished Professor of Dermatology, and co-leader of the UNC Lineberger Melanoma Program, explains, “The UNC Lineberger melanoma program began 12 years ago and is still relatively young. We have worked hard to carry out productive research that addresses the needs of patients. However, funding for new innovative pilot projects is always a challenge. We believe that the wonderful seed grant program this family has established will allow our research to blossom, leading to the investigation of new ideas that will ultimately benefit melanoma patients. This most generous gift and investment in our work will bring us to a place in time when melanoma is less common, may be diagnosed earlier, and can be treated effectively.”



calendar of events

March

3rd 26th Annual Lineberger Club Luncheon
The Carolina Club at the George Watts Hill Alumni Center

April

20th Tar Heel 10-miler benefitting UNC Lineberger — Kenan Stadium
Look for registration information at unclineberger.org/signature-events

29th and 30th UNC Lineberger Scientific Symposium:
The Tumor Microenvironment
The Friday Center
Chapel Hill, N.C.

September

27th UNC Lineberger Blue Ribbon Gala —Carolina Club
Save the date for this exciting new signature event —
more details coming soon!

To purchase tickets or for more information about these events and other UNC Lineberger news, visit www.unclineberger.org, or follow us on [f](#) [t](#)



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Kioti Tractor's Pink Tractor Silent Auction nets more than \$15,000

Kioti Tractor, a division of Daedong-USA, Inc., recently donated all proceeds from the silent auction of a pink tractor to UNC Lineberger for breast cancer research. Douglas Earwood, Director of Sales and Marketing, presented a check in the amount of \$15,267 to UNC Lineberger at the Kioti North American headquarters in Wendell, NC.

Kioti Tractor will generously auction another pink tractor this February at the National Farm Machinery Show in Louisville, KY, and proceeds will once again benefit breast cancer research at UNC Lineberger. If you are interested in submitting a bid on the pink tractor, please contact Jennifer Bowman at 919.966.5905 to make arrangements.



Alumnus celebrates a century

Cyrus Aman Sr. UNC '34 celebrated his 100th birthday during Homecoming weekend by touring the Tar Heel basketball museum and visiting with Coach Roy Williams, as well as visiting other sites at his alma mater. The Onslow County native made a gift of more than \$26,000 to UNC Lineberger in October.

Lickin' Leukemia

Last fall, the tennis and golf associations at Prestonwood Country Club in Cary teamed up against a mutual opponent — leukemia. They held fundraising tournaments to benefit the UNC Comprehensive Cancer Support Program, supporting leukemia patients and their families by providing opportunities for them to enhance their bonds during the cancer treatment process. In December, UNC Lineberger patient and Prestonwood Country Club member Tricia Prestia (center) presented a check for \$7,000 to Liz Sherwood (left) and Dr. Don Rosenstein (right), director of the UNC Comprehensive Cancer Support Program.



Participants in the Lickin' Leukemia tennis tournament at Prestonwood Country Club in Cary, NC.