

Cancerines

January 2013

UNC treats hematologic malignancies from diagnosis through transplant

A full range of treatment options before transplant

The team at UNC treats the full range of hematologic malignancies including acute and chronic leukemias, Hodgkin's and non-Hodgkin's lymphoma, and multiple myeloma.

"These are complex diseases to treat outside of the Intensive Care Unit and require diverse expertise," says Jonathan Serody, MD, Elizabeth Thomas Distinguished Professor of Immunology and a member of the program. In addition to medical oncologists who focus on hematologic malignancies, the team includes radiation oncologists, surgical oncologists, hematopathologists, cytopathologists and, when indicated, a full team of bone marrow and stem cell transplantation specialists.

In certain diseases, the expertise needed is even broader. "The multiple myeloma program has resources that we can bring to bear on any aspect of the disease," says Pete Voorhees, MD. In addition to seamless transition for transplant-eligible patients, "We work with neurosurgeons, neurointerventional 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. Voorhees leads a specialty clinic focused on myeloma patients and their specific needs.

"We have an experienced transplant team that has expanded in recent years with the hire of faculty members who have trained at some of the top cancer centers in the nation, including Stefanie Sarantopoulos, MD, PhD from Dana Farber/Harvard, Kristy Richards, MD, PhD, and Paul Armistead MD, PhD, from M.D. Anderson and Jay Coghill, MD, from UNC. That gives us a good understanding of best practices, and it allows us to bring in new ideas for how we want to best care for our patients," says Thomas C. Shea, MD, Director of the Bone Marrow Transplant Program. "Over the last two decades we have developed a bone marrow and stem cell transplantation program that provides comprehensive and supportive care to all recipients, donors, and their families."

The team consists of physicians, physician extenders, nurse coordinators, social workers, and a financial counselor. Additional resources are provided by transfusion medicine, pharmacy, pastoral care, and recreational therapy. "I think one of the core strengths of the program is the stability of our transplant coordinator group. We have had people who have been with us for 15 years," notes Dr. Shea.

Patient Centered Transplant Care

The UNC Bone Marrow and Stem Cell Transplantation Program has a strong focus on educating new patients and their caregivers. Each new patient is first seen by one of the faculty physicians, as well as a transplant coordinator who manages all aspects of this complex regimen. They also see a social worker during their initial visit to identify resources they are going to need to marshal for a successful treatment program. Patients and families take a tour of the inpatient unit, as well as the clinic facility and are provided with a 90-minute video that focuses on only educating the patient on what to expect during the transplant process and also provides information about what the caregivers need to know through clinical scenarios navigated by a former patient and his wife. "The feedback has been extremely positive," Shea notes.

During each patient's transplant stay, UNC's team communicates with their referring physician on a regular basis and both patients and caregivers are encouraged to take advantage of services offered through UNC's Comprehensive Cancer Support Program.



Left: Jonathan Serody, MD, Elizabeth Thomas Distinguished Professor of Immunology

Below: Thomas C. Shea, MD, Director, UNC Bone Marrow Transplant Program



"Because the risks and rewards are so high, it makes a big difference how good of a job you do, and being able to bring as many resources as possible to the table is important," notes Dr. Shea. "Even though it is very intensive and high-tech therapy, there's also a large personal component to it. These people are sick, and you spend a lot of time with them so it allows you to develop a relationship. It is a rewarding balance between direct patient care and very high-tech treatment."

Superior transplant outcomes

The Center for International Bone Marrow & Transplant Research (CIBMTR), an international organization dedicated to improving transplant outcomes, publishes outcomes data each year for transplantation centers across the United States.

In its most recent report CIBMTR rated UNC Cancer Care's Bone Marrow and Stem Cell Transplantation Program an "overperforming" center. Based on a risk adjusted assessment, UNC's bone marrow and stem cell transplantation patients had a much higher survival rate than expected, despite the high level of complexity of the cases that were treated. These results were for all patients who underwent a transplant from a related or unrelated donor. Out of 156 centers from across the country, UNC was one of only 14 to achieve this ranking.

"We are extremely pleased to achieve this distinction as these excellent results reflect the hard work and dedication of the many faculty and staff at UNC who are involved with our program", said Dr. Shea.

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UNC's Clinical Cancer Genetics program remains a pioneer

Leading the way for almost two decades

The UNC Cancer Genetics Program provides consultations for individuals who may be at an increased risk of developing cancer and collaborates to integrate genetic information into treatment planning for patients who develop cancer. The program has been in existence for about 17 years.

"At about that time, we began in medicine to be aware of specific genetic changes that predisposed individuals to a higher risk of cancer," said James



Evans, MD, PhD, Bryson Distinguished Professor of Genetics. "We started this clinic because there was an increasing demand for trying to sort this out in patients and for purposes of guiding their care. Genetics has become part and parcel of patient evaluation in the realm of cancer, so it has been very gratifying to be in the thick of that growth and be able to offer UNC patients these services."

Dr. Evans leads the **UNC** Cancer Genetics Program and is

a member of both UNC Lineberger and the Carolina Center for Genome Sciences. He said the UNC Cancer Genetics Program was among the first cancer genetics programs in the country.

The UNC Cancer Genetics Program team is comprised of two board certified medical geneticists, several board certified genetic counselors, medical oncologists, surgical oncologists and faculty from the molecular diagnostic laboratory. This core team works with members of other multidisciplinary programs to provide fully integrated care for patients.

Comprehensive risk assessment

All patients seen by this multidisciplinary team receive a comprehensive risk assessment so that appropriate cancer screening and prevention measures can be implemented when needed.

"We figure out their concerns, then we do a detailed family history and a detailed medical history. We also do an exam if appropriate," Dr. Evans said. "Then we synthesize those things to figure out if the application of some of these new technologies, such as DNA sequencing, would help this person figure some things out. For example, there are women who are trying to decide between breast-conserving therapy and double mastectomies. We can help inform them with regard to what to do."

"What makes our program unique is our highly integrated nature with the rest of the cancer team and the fact that we have a whole cadre of counselors and two medical geneticists," Dr. Evans said. "Our UNC team is a very broad, interdisciplinary team, drawing upon expertise in a variety of fields, ranging from bioinformatics to social medicine. Very few programs have the kind of manpower we do with the expertise we have."

In addition to coming to the Cancer Genetics Program to address concerns about their own health, some patients come with concerns about the rest of their family.

"We commonly make recommendations for the person, as well as the rest of the family," Dr. Evans said.

He said one of the challenges is how best to interpret genetic testing.

"Our technology is getting very good at delineating what your genetic code is, but what we still struggle with is how to interpret that sequence," Dr. Evans explained. "What does it really mean for you and what should be done? While we can sequence the genome, it remains an area of pretty profound mystery. We'll see a change, and the challenge is to determine whether that change in this gene is a problem."

Research from bench to behavioral factors

Dr. Evans' research is focused on three areas. The first is how do people perceive and use genetic information. The second is how genetics can be used to direct therapy.

"For example, do we respond to drugs differently in part because of our underlying genetics?" he said.

The third area of interest explores how to use this burgeoning technology for better patient care: how can it be used as a diagnostic tool and in what specific clinical arenas it may be useful.

"New technology over the past couple of years has made a quantum leap in our ability to define an individual's genome. When we started the cancer genetics clinic, it was a pretty big feat to sequence a single gene. It took at least a month to get those results back. We are now at the point in technology where we can sequence all of your genes and all of the rest of your DNA material — your entire genome - in a few weeks."

Clinical Genetics

James P. Evans, MD, PhD, Director Jonathan S. Berg, MD, PhD

Molecular Diagnostics Jessica Booker, PhD Peggy Gulley, PhD Karen Weck, MD

Genetic Counseling Cecile Skrzynia, MS, CGC Catherine Fine, MS, CGC Kristy Lee, MS, CGC Ofri Leitner, MS, CGC Kate Foreman, MS, CGC

Dr. Evans notes that there are all types of interesting and perplexing public policy questions such as how to keep the information private and who pays for it. He has testified about the issue to various congressional committees.

"There are a lot of ethical issues because we understand that our genome tells us something about who we are on a fundamental level. Privacy concerns are huge. You send your DNA to a company, and what are they going to do with it? What if they go bankrupt? What if they are subpoenaed? There are all kinds of questions," he said.

Finding more clinical applications

While the field is still a bit young for clinical trials, Dr. Evans has recently been awarded a four-year \$6.4 million grant from the National Institutes of Health to evaluate robust DNA sequencing in the clinical setting to define where and when this DNA technology can be most useful to patients. The effort has been named the North Carolina Clinical Genomic Evaluation by NextGen Exome Sequencing (NCGENES).

UNC has been awarded one of five Clinical Sequencing Exploratory Research projects that will study ways for healthcare professionals to use genome sequencing information in a clinical setting. The National Human Genome Research Institute, part of the National Institutes of Health, funds the grant.

"In this effort we will sequence all of the genes in each of about 750 patients to determine how well this technology performs as a diagnostic tool to figure out why these patients are ill," Dr. Evans said. "We will also carefully investigate how patients and their doctors use this information in both a medical and a non-medical context. For example, sometimes whole exome sequencing will discover things about a person that they might not have wanted to know: being at high risk of an untreatable disease such as dementia. We will investigate how such information is best handled in a way that is sensitive to patient preferences. We now have powerful technology that can provide us with much genetic data about an individual. How do we move this technology into the clinical practice arena and successfully address the technical, logistical, psychosocial and ethical issues that arise from its use?"

Dr. Evans said this is an exciting time to be in this field.

"Being a geneticist right now, feels like what I think it must have felt like to be a physicist in 1907 when physics was absolutely exploding and when our entire view of the universe was changing. In the same way we now have such tremendous insights into genetics," he said. "I see genetics as the physics of biology. We have such powerful tools we didn't have just a few years ago. I think it's very exciting to figure out how we can use these things to improve health. I think there is going to be a defined subset of people who will benefit greatly from it. I think it will save lives."

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The program's inpatient and outpatient units have recently led UNC Health Care in patient satisfaction, as measured by Press Ganey surveys.

Broadening Transplant Eligibility

"Over the last 20 years we have gone from related donors being the only option to a very robust matching process through the National Marrow Donor Program, a database that now has over 10 million potential donors," Shea notes. He is also excited about the ability to do transplants in older patients, a significant change compared to 10 or 15

"We're doing that by using less toxic regimens that cause fewer side effects and allow people to get through the transplant part more safely," he said. "In addition, 90 percent of people have somebody that is at least a 50 percent match. The advent of such 'alternative donor' transplants that use people who are only partial matches could double the number of people who could get a transplant. Increasingly people are looking at ways to do that, and those results are getting more and more encouraging."

Clinical Research

UNC offers a robust portfolio of clinical trials and has been one of the first institutions to offer some new treatments that have now been integrated into the standard of care, such as Gleevec®, alltransretinoic acid and arsenic hydroxide. "We are learning about what is driving hematologic malignancies at the molecular level. Everyone who is eligible is encouraged to enroll in a clinical trial so that we can understand better why some people don't respond to the first line therapy, learn how to optimize patient-specific treatments and ensure that patients who need the most recent therapies have access to those treatments," notes Dr. Serody.

For bone marrow and stem cell transplantation, "We have a strong track record of participating in NCI-sponsored trials both through the Cancer and Leukemia Group B (CALGB) and the Clinical Trials Network (CTN)," says Dr. Shea.

Dr. Shea is currently President of the Scientific Advisory Board of the CIBMTR. He believes this kind of research participation is an important

responsibility. "Whenever you have a treatment that is intensive and potentially toxic, it's especially important to enroll people on studies so you can capture and report the data and make sure that your colleagues nationally and internationally know whether you are seeing something that is better, worse or the same compared to the standard of care."

He and Don Gabriel, MD, PhD, were co-authors of a clinical trial demonstrating that lenalidomide is associated with significant improvement in outcomes with newly diagnosed multiple myeloma who have undergone a transplant. The study was supported by the National Cancer Institute and Celgene, and results were published in the New England Journal of Medicine.

Outcomes research is also a strength with William Wood, MD, MPH, collaborating with medical oncologist Hy Muss, MD, and population researcher Bryce Reeve, PhD, to conduct studies on patient-reported outcomes. He is also working with exercise scientist Claudio Battaglini, PhD, to research predictors of transplant outcomes.

Research into the causes and treatments of disease and transplant side effects.

"The cure rates for patients with leukemia and multiple myeloma are not 100 percent, and that is what keeps us looking for better treatments," says Dr. Serody. His research focuses on cancer immunology including ways to enhance the effectiveness of therapeutic cancer vaccines and ways to prevent and treat graft vs. host disease (GVHD), a common side effect of bone marrow and stem cell transplantation.

UNC's research programs are focused on understanding the genetics of hematologic malignancies, and evaluating compounds that target those genetic abnormalities, less toxic, more rational manner. Dr. Armistead recently recruited from M.D. Anderson, is working on identifying and testing agents to help the immune system respond to leukemia.

Dr. Sarantopoulos was recruited from Dana-Farber and Harvard and is collaborating





Left: James Coghill, MD; Right: Stefanie Sarantopoulos, MD, PhD

with Albert Baldwin, PhD, and Dr. Serody to understand key mechanisms causing chronic GVHD, which affects between 30 and 70 percent of transplant patients. The project focuses on B-cells, a type of immune cell that makes antibodies. By understanding how B-cells are activated and contribute to chronic GVHD, Sarantopoulos hopes to develop potential targeted therapies. In a second grant from the U.S. Department of Defense, Drs. Sarantopoulos and Serody are working to develop a therapy that will use a tumor vaccine strategy to boost the immune system's "seek and destroy" mechanism for cancerous cells just after a bone marrow or stem cell transplant.

Serody and James Coghill, MD, are working with Stephen Frye, PhD, to study a receptor called CC-Chemokine receptor 7 (CCR7), which plays a role in the immune response that is at the root of GVHD. His laboratory studies show that cells lacking CCR7 maintain the desired anticancer immune effects after a transplant without displaying many of the characteristics that lead to GVHD, and he is examining a potential pool of over 120,000 compounds for agents that are able to block CCR7 function in laboratory-grown cells and in mouse bone marrow transplant models.

Dr. Serody says, "It's an exciting time. The genetics of cancer has overwhelmed us in terms of what we have learned over the last 10 years. We now know a lot about the somatic mutations and chromosomal translocations that drive these diseases, how their presence affects prognoses.

Dr. Shea agrees, adding, "My favorite part of the job is taking care of people and getting them well."

Bone Marrow & Stem Cell Transplantation Program

Adult BMT Physicians

Thomas C. Shea, MD, Director Paul Armistead, MD, PhD James Coghill, MD Don Gabriel, MD, PhD Katarzyna J Jamieson, MD Jonathan Serody, MD Stefanie Sarantopolous, MD, PhD William Wood, MD, MPH

Pediatric BMT Physicians

Kimberly Kasow, DO, Pediatric Director Philip Roehrs, MD

Clinical Program Director S. Elizabeth "Sam" Sharf

Physician Extenders

Bob Irons, PA Kimberly Wehner, DNP Alicia Pinto, NP Cammie Moore, CPNP, CPON Amber Essenmacher, PA

Nurse Coordinators

Debbie Covington, RN, BSN, OCN, CHTC Bettie Hinshaw, RN, BSN, OCN, CHTC Pat Odell, RN, BSN Wendy Pino, RN Paula Stinson, RN, BSN, CPON Martha Tye, RN, BSN

Program Coordinators Lisa Cooper

Norma Fullwood

BMTU Nurse Manager Gayl Talbert, MS, RN, CPON

Financial Counselor Lisa Sofferin

Nutritionist

Jennifer Spring, RD, LD

Fertility Preservation Jennifer E. Mersereau, MD

Radiation Oncology David Morris, MD

Leukemia, Lymphoma & **Myeloma Program**

Hematology/Medical Oncology

Matthew Foster, MD Katarzyna J Jamieson, MD Steven Park, MD Kristy Richards, MD, PhD Hendrik W. Van Deventer, MD Peter Voorhees, MD William Wood, MD, MPH

Radiation Oncology David E. Morris, MD

Surgical Oncology Benjamin F. Calvo, MD Hong Jin Kim, MD Michael Meyers, MD David Ollila, MD Karyn Stitzenberg, MD Jen Jen Yeh, MD

Cytopathology Susan Maygarden, MD

Hematopathology Georgette A. Dent, MD

Yuri Fedoriw, MD

Nurse Navigators

Lisa Licht, RN Maryanne Randolph, RN, BSN, OCN **Brooke Hayes**

Nutritionist Jennifer Spring, RD, LD

Fertility Preservation Jennifer E. Mersereau, MD



Paul Armistead, MD, PhD



William Wood, MD, MPH



Carey named Division Chief of HematologyOncology and Physicianin-Chief of the N.C. Cancer Hospital

Lisa A. Carey, MD, has been appointed Chief of the Division of Hematology and Oncology at the University of North Carolina School of Medicine and Physician-in-Chief of the N.C. Cancer Hospital.

Dr. Carey, a member of the UNC faculty for more

than ten years, is Richardson and Marilyn Jacobs Preyer Distinguished Professor in Breast Cancer Research, Professor of Medicine, Medical Director of the UNC Breast Center, and Associate Director for Clinical Research at UNC Lineberger Comprehensive Cancer Center.

In her role as division chief, Dr. Carey will be responsible for the overall administration of the division, including clinical practice, educational activities, research programs, fiscal management, and meeting the missions of patient care, research, and education. This includes leading a diverse group of more than 50 clinicians, investigators, physician extenders and fellows, which has grown substantially.

As Physician-in-Chief, Dr. Carey is responsible for the clinical operations of the N.C. Cancer Hospital and will work with Shelley Earp, MD, Director of UNC Lineberger and UNC Cancer Care to coordinate care of cancer patients throughout the UNC Health Care System. More than 135,000 patients with cancer are served each year by UNC Health Care through inpatient and outpatient clinics.

"Dr. Carey is recognized internationally as one of the world's most thoughtful clinician investigators. Her mastery of cancer biology and genetics and their application to improving patients' lives sets her apart. This type of interdisciplinary leadership, combined with her consummate clinical skills, will provide remarkable direction as the division prepares for the new era of cancer care," said Dr. Earp.



Basch joins UNC Lineberger to lead cancer outcomes research program

Ethan Basch, MD, has joined UNC Lineberger as an associate professor of medicine and director of the cancer outcomes research program.

Basch comes to UNC from the Memorial Sloan-Kettering Cancer Center where he was an attending physician at Memorial Hospital and an associate

professor of public health at Weill Cornell Medical College.

Dr. Basch is a medical oncologist and health services researcher. His clinical expertise is prostate cancer, and his research expertise includes patient-reported outcomes, drug regulatory policy, and comparative effectiveness research.

Shelley Earp, MD, director of UNC Lineberger, said, "We are thrilled to have Dr. Basch bring his national leadership in outcomes research to UNC, joining a team that spans multiple schools, colleges, and disciplines with the goal of discovering what really works in cancer care through comparative effectiveness research. His expertise in the effort to inform health care decisions, and particularly in integrating the patient perspective, brings additional depth to an already strong team."

Basch is a federally appointed member of the Methodology Committee of the Patient-Centered Outcomes Research Institute (PCORI), a member of the Board of Directors of the International Society for Quality of Life Research (ISOQOL), Co-Chair of the Health Outcomes Committee of the Alliance for Clinical Trials in Oncology, and a member of the Board of Scientific Advisors of the National Cancer Institute. He leads an ongoing NCI initiative to develop a patient-reported adverse event monitoring system for use in clinical research (the "PRO-CTCAE"), and is study chair for multiple trials employing patient-reported endpoints.

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," 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.



Olshan appointed Associate Director of Population Sciences

Andrew F. Olshan, PhD, has been appointed Associate Director of Population Sciences at UNC Lineberger Comprehensive Cancer Center. This senior leadership position is responsible for overseeing the development of population-based cancer research and its integration throughout the Cancer Center programs. The position also oversees several Cancer Center core resources

as well as two established scientific programs, Cancer Epidemiology and Cancer Prevention and Control. Dr. Olshan will continue to serve as head of the Cancer Epidemiology Program and directs two cores, the Biospecimens Processing Facility and Rapid Case Ascertainment Core.

Dr. Olshan chairs the Department of Epidemiology at the UNC Gillings School of Global Public Health (SPH) where he is a professor of epidemiology. He holds a joint appointment in the Department of Otolaryngology/Head and Neck Surgery at the UNC School of Medicine.

"Dr. Olshan is an outstanding, nationally recognized cancer epidemiologist who has conducted groundbreaking population-based studies in adult cancers as well as leading two large NCI-funded studies of childhood cancer," said Dr. Shelley Earp, UNC Lineberger Director. "In addition to his major role as chair of one of the country's premier Epidemiology departments, he has taken the time to fully interact with our prevention and control faculty who are experts in cancer outcomes, health communication, behavioral intervention and community-based participatory prevention research. In this capacity, he has earned the respect of population science faculty from across the university. He has played a particularly active role in developing our Integrated Cancer Information Surveillance Systems and with prevention faculty on HealtheNC as well as leading our interaction with the NC Central Cancer Registry. It is this public health research perspective that makes Dr. Olshan an ideal leader for the UNC Lineberger's Population Science Program."



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."



Golden and Earp receive paper of the year award from SOPHE

Shelley Golden, MPH, and Jo Anne Earp, ScD, cowrote an article that received the Lawrence W. Green Paper of the Year Award at the 63rd annual meeting of the Society for Public Health Education (SOPHE), held Oct. 25-27 in San Francisco.

Earp, professor and former chair of UNC Gillings School of Global Public Health's Department of Health Behavior is a member of UNC Lineberger, and has been on the UNC public health faculty since 1974. Golden, who received her Master of Public Health from the School in 1999, is a lecturer in the health behavior department.



Marks elected to board of directors for American **Society for Radiation** Oncology

Lawrence B. Marks, MD, has been elected to a twoyear term on the Board of Directors of the American Society for Radiation Oncology (ASTRO). He will

serve as Vice Chairman of the Clinical Affairs and Quality Council. This Council promotes patient care through practice guidelines, clinical expertise and a focus on quality and safety.

Dr. Marks is the Dr. Sidney K. Simon Distinguished Professor of Oncology Research Professor and Chairman of the Department of Radiation Oncology in the UNC School of Medicine. Regarded as one of the country's top breast cancer specialists, Marks' clinical and research interests include three-dimensional and conformal radiation treatment planning, protection of normal tissue from radiation-caused damage, breast cancer and lung cancer.



Muss receives Brinker Award for Scientific Distinction

Hyman B. Muss, MD, Professor of Medicine and the Director of the UNC Lineberger Geriatric Oncology Program is a 2012 winner of the prestigious Susan G. Komen for the Cure® Brinker Awards for Scientific Distinction in Basic Science

and Clinical Research, the highest awards of merit given by one of the world's leading breast cancer organization.

The award recognizes Dr. Muss' critical contributions to the treatment of breast cancer, in particular the treatment of breast cancer in older women. His work on clinical trials specifically targeted to older women has provided the foundation for offering geriatric patients state-of-the art treatments and has had a significant impact on the standard of care and quality of life for elderly women with breast cancer.

More than 60 UNC Lineberger physicians named Best Doctors in America® 2012–2013

The annual compilation of The Best Doctors in America® includes more than 60 physicians affiliated with the University of North Carolina's Lineberger Comprehensive Cancer Center.

The Best Doctors database recognizes the top 5 percent of the nation's doctors in its database. The 61 UNC Lineberger physicians are among approximately 47,000 doctors from the United States chosen through a peer-reviewed survey and research conducted by Best Doctors.

The UNC Lineberger physicians, listed by their medical specialty (as the specialty is identified in the Best Doctors database), are:

Dermatology

Nancy Thomas

Endocrine and Metabolism

Gastroenterology Robert S. Sandler, R. Balfour Sartor, Nicholas J. Shaheen, Ian S. Grimm, Kim L. Isaacs

Geriatric Medicine

Jan Busby-Whitehead, M. Laura C. Hanson

Hepatology Michael Warren Fried

Internal Medicine

Medical Oncology and Hematology Stephen A. Bernard, Lisa A. Carey, Elizabeth

Claire Dees, Nigel S. Key, Stephan Moll, Hyman B. Muss, Bert O'Neil, W. Kimryn Rathmell, Alice D. Ma, Matthew I. Milowsky, Hannah K. Sanoff, Thomas C. Shea

Neurological Surgery

Matthew G. Ewend

Nuclear Medicine William H. McCartnev

John F. Boggess, Wendy R. Brewster, Daniel L. Clarke-Pearson, Wesley C. Fowler, Jr., Paola Alvarez Gehrig, Linda Van Le

Ophthalmology

Otolaryngology Mark C. Weissler, Harold C. Pillsbury III, Brent A. Senior, William W. Shockley

Pathology Margaret L. Gulley, William K. Funkhouser

Ped Hem Oncology Julie Blatt, Stuart Gold

Psychiatry Donald L. Rosenstein

Pulmonary Medicine

Maria Patricia Rivera

Radiation Oncology Catherine M. Lee, Lawrence B. Marks, David Morris, Julian G. Rosenman, Joel E. Tepper, Mahesh Kumar A. Varia

Radiology Mauricio Castillio, Julia Fielding, Joseph M. Stavas

Surgery Anthony A. Meyer

Surgical Oncology Benjamin F. Calvo, David W. Ollila

Thoracic Surgery Thomas M. Egan, Richard H. Feins

Urology Culley C. Carson III, Raj Pruthi, Matthew Nielsen, Matthew Raynor, Eric Wallen

Best Doctors, Inc. is based in Boston and provides highly specialized medical services to approximately 10 million people in more than 30 nations. Best Doctors' global database is updated continuously through a peer-review based evaluation of the medical profession in more than 40 specialties and 400 subspecialties of medicine.

National Awards and Honors



Victoria Bae-Jump, MD, PhD, will serve a two-year term as a junior investigator on the Gynecologic Cancer Steering Committee of the National Cancer Institute. This committee addresses, designs and prioritizes gynecologic cancer clinical trials to identify the best science in clinical research. Dr. Bae-Jump is an assistant

professor of gynecologic oncology and a member of the UNC Lineberger Comprehensive Cancer Center.



Lisa A. Carey, MD, the Richardson and Marilyn Jacobs Preyer Distinguished Professorship in Breast Cancer Research, presented an invited lecture at Harvard Medical School to mark the 200th anniversary of the New England Journal of Medicine's founding. Dr. Carey is Medical Director of the

UNC Breast Center and Associate Director for Clinical Research at UNC Lineberger Comprehensive Cancer Center.



James Coghill, MD, has received a National Institutes of Health Mentored Clinical Scientist Research Career Development Award from the National Heart, Lung and Blood Institute (part of the National Institutes of Health) to study a promising target for new therapies to combat graft versus host disease.



Timothy Gershon, MD, PhD, assistant professor of neurology, has received a four-year National Institutes of Health Mentored Clinical Scientist Research Career Development Award grant from the National Institute of Neurologic Disease and Stroke to research the pathogenesis of medulloblastoma and the development of a

novel, biologically-based antitumor therapy. He will be mentored by Mohanish Deshmukh, PhD.



Trevor Hackman, MD, assistant professor of Otolaryngology, Head & Neck Surgery, is the first head and neck surgeon in the Carolinas to complete more than 20 procedures using the da Vinci Trans Oral Robotic Surgery approach.



Charles Perou, PhD, the May Goldman Shaw Distinguished Professor of Molecular Oncology and UNC Lineberger member, was a leader of the Cancer Genome Atlas program's genetic characterization of 800 breast tumors, including finding some of the genetic causes of the most common forms of breast cancer, providing clues

for new therapeutic targets, and identifying a molecular similarity between one sub-type of breast cancer and ovarian cancer. Their findings, which offer a more comprehensive understanding of the mechanisms behind each sub-type of breast cancer, were reported in the September 23, 2012 online edition of the journal Nature. "This study has now provided a near complete framework for the genetic causes of breast cancer, which will significantly impact clinical medicine in the coming years as these genetic markers are evaluated as possible markers of therapeutic responsiveness," Perou noted.



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Nancy E. Thomas, MD, PhD, has been appointed the first Irene and Robert Alan Briggaman Distinguished Professor. She is co-leader of the UNC Lineberger Melanoma Program. Her current research focus is the discovery and validation of biomarkers that may allow for earlier diagnosis, staging and treatment of melanoma. Thomas is part of two large studies of melanoma: the international Genes, Environment and Melanoma (GEM) Study and the North Carolina Melanoma Study. The GEM study involved 3600 melanoma patient in the US, Italy, Australia and Canada. The NC Melanoma Study

involved 300 melanoma patients in 42 counties.



Eric Wallen, MD, has been named 2012 American Urological Association Teacher of the Year. This award is presented annually to recognize an outstanding urology educator or program director who has dedicated a portion of his/her career to teaching residents and advancing urology graduate medical education. Dr. Wallen is a professor of surgery/ urology in UNC's Division of Urologic Surgery, director of Laparoscopic Surgery, and director of the Urology Residency Program.

Two UNC Lineberger faculty honored by **Damon Runyon Cancer Research Foundation**





Casey Anders, MD

William Kim, MD

Carey Anders, MD, and William Kim, MD, were awarded grants from the Damon Runyon Cancer Research Foundation.

Dr. Anders received a 2012 Clinical Investigator Award and Dr. Kim received a continuation of his 2011 Clinical Investigator Award. Both are assistant professors of medicine and members of UNC Lineberger Comprehensive Cancer Center.

Dr. Anders' award is one of six made by the Damon Runyon Cancer Research Foundation. She will receive a three-year \$450,000 grant to support her research on improving survival for women with breast cancer brain metastases.

Dr. Anders will be mentored by Lisa Carey,

MD, UNC Lineberger associate director for clinical research and Richardson and Marilyn Jacobs Preyer Distinguished Professor in Breast Cancer Research, and by Charles Perou, PhD, the May Goldman Shaw Distinguished Professor of Molecular Oncology.

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Dr. Kim will receive an additional two years of funding totaling \$300,000 to complete a promising avenue of research. His grant is made possible through the William K. Bowes, Jr. Foundation, and Connie and Robert Lurie.

His work is focused on renal cell carcinoma, a type of kidney cancer that has poor prognosis when diagnosed at later stages. He will use the continuation grant to identify new drug combinations by applying novel proteomic technologies in collaboration with Dr. Gary Johnson with a goal of rapidly moving these findings to the clinical setting for improved treatment of renal cell carcinoma. Gary Johnson, PhD, is professor and chair of the department of pharmacology in the UNC School of Medicine.

Dr. Kim will be mentored by Norman Sharpless, MD. UNC Lineberger associate director for translational research and Wellcome Distinguished Professor in Cancer Research and Charles Perou, PhD.