

HOLLINGS

Winter 2014

HOLLINGS

HORIZONS

The Newsletter of Hollings Cancer Center
Medical University of South Carolina



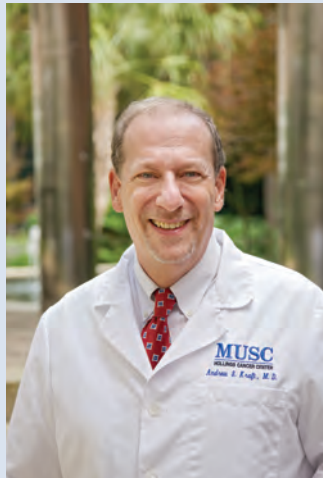
STATEWIDE IMPACT OF AN NCI-DESIGNATED CANCER CENTER

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■ From the Director

It hardly seems that five years have passed since the Hollings Cancer Center earned National Cancer Institute (NCI) designation for the first time. This was a significant milestone placing us among the country's top cancer research centers and making Hollings the only NCI-designated center in South Carolina.



There are fewer than 70 NCI-designated centers in the US, and this distinction is the culmination of many years of hard work by numerous dedicated people who never doubted that a small cancer center in a state with significant cancer problems and a struggling economy could join the ranks of other cancer research centers, often much better funded, that are making a difference. And while we were proud to receive this distinction, we knew that it raised the bar in terms of our obligation to cancer patients and our commitment to make progress against this complicated disease.

Just a few months ago, the NCI reviewers returned to evaluate our progress, and I am pleased to report we anticipate the renewal of our designation. But what we are most excited about is our intention over the next five years to pursue Comprehensive Cancer Center (CCC) status, the highest designation possible from the NCI.

The NCI requires that institutions seeking CCC designation, currently held by just 41 cancer centers in the nation, demonstrate greater depth and breadth of research in three major areas: laboratory, clinical, and population-based science, including enhanced public education, training, and outreach activities.

To reach our destination we will build on the programs that play to our current strengths, such as cancer control/tobacco control and cancer immunology; and build in areas, such as novel genetics, drug discovery, and cancer disparities, that will allow us to better serve South Carolina and the national cancer research community. Support from our home institution, community and elected leaders, research collaborators, and donors will be critical to our mission.

The Hollings Cancer Center team wishes you all the best in 2014. As you consider the year ahead, know that our aspirations are higher than ever, and that we are committed to being one of the best cancer research and treatment centers in the country.

Sincerely,

Andrew S. Kraft, MD

Director, Hollings Cancer Center

William H. Folk, MD, Chair in Experimental Oncology

An NCI Cancer *Obligation and*

South Carolina has some of the highest rates of cancer incidence and mortality in the country. More than 27,000 residents will be diagnosed this year, and more than 9,800 will die from the disease annually. The state is 75 percent rural with a significant underserved population comprised largely of minorities.

As the only National Cancer Institute (NCI)-designated center in the state, and one of fewer than 70 nationwide, the Hollings mission of “reducing the burden of cancer in South Carolina through quality patient care, innovative research, professional education, and statewide prevention” is urgent.

Gauging the role and impact of a center like Hollings is a bit like the ancient parable about a group of blind men trying to describe an elephant, with each touching a different part. Every person's perspective is different, but listen long enough and a picture emerges.

Former US Senator Ernest “Fritz” Hollings, who obtained federal funding to establish the cancer center in the early 1990s, said that historically South Carolina has grappled with significant public health issues such as hunger, access to basic healthcare, and cancer.

“This cancer center is playing a role in our state that is necessary and has been for years,” Hollings said. “I know that the doctors and researchers are making tremendous progress against this disease. We've accomplished a great deal, but just taking a look at what we're up against in cancer, we have a great deal of work ahead.”

NCI designation means Hollings has a singular obligation and opportunity to share its resources by engaging in collaborative research, training, outreach, and prevention in ways that address the state's demographics. One of the cancer center's significant partnerships in these areas has been with South Carolina State University (SCSU), one of the nation's 106 Historically Black Colleges and Universities.

Judith Salley, PhD, chair of the Department of Physical and Biological Sciences at SCSU, said the partnership has provided mentored opportunities for minority students exploring research careers, and allowed her institution to obtain competitive funding from the Department of Defense and National Institutes of Health.

“We are excited about the impact we're going to have across South Carolina. From the number of intervention programs we've developed to the initiatives for getting African Americans to participate in clinical trials, there is so much more we'll be doing together,” Salley said. “The effect of the relationship between our institutions is far reaching.”

US Congressman James E. Clyburn, a graduate of SCSU, has represented South Carolina in Congress since 1993. A hallmark of Clyburn's tenure has been his dedication to public health and civil

Center in South Carolina: Opportunity

rights issues, the intersection of which can be found in his rural and racially diverse district.

“Eliminating health disparities is one of the most important things we can be doing in South Carolina. The research being done at this center, I think, will go a long way in doing that,” Clyburn said.

US Senator Lindsey Graham, South Carolina’s senior senator and Clyburn’s colleague across the political aisle, noted that Hollings’ leadership role in addressing cancer as a public health issue crossing all demographic lines means the center can make a difference on a national level, particularly in cancer control.

“South Carolina really is on the front lines in this war on cancer, and this is a good place to look at how to better treat and prevent cancer in rural areas throughout the country,” Graham said. “Hollings has become the flagship in this.”

Considering the parable of the elephant, Pamela Lackey might have touched more parts of the animal than most. Lackey, whose husband is a cancer survivor, is president of AT&T South Carolina and chair of the Hollings Advisory board. She served as a board member of South Carolina’s SmartState Program, which uses SC Education Lottery money to fund Centers of Economic Excellence at the state’s three major research universities.

Hollings leads or co-leads six cancer-related centers for which 12 renowned basic and translational cancer scientists have been recruited to MUSC.

“Without the outstanding physicians and researchers, and the patient care and the community outreach that the Hollings conducts every day in our state, there are people who simply would not be alive.” Lackey said. “These types of activities keep our economy moving forward and help us attract businesses that might not otherwise come here without assets like a National Cancer Institute-designated center.”

Perhaps the most important perspective on Hollings’ role comes from patients. Six years ago, John Sanders found himself among the 27,000 South Carolinians diagnosed with cancer. Sanders, administrator of the MUSC Children’s Hospital, underwent surgery and chemotherapy and was cancer-free for 18 months before it returned in both lungs and lymph nodes. He is treated every three weeks with chemotherapy, feels well most of the time, and is living a full life.

“I’m a stage IV cancer survivor, and I’m hitting six years. Only about 10-15 percent of us are doing that. Not only am I alive, but I’m living,” said Sanders. “Life is different, but I credit all that to the Hollings Cancer Center. I know that everyone here is doing everything they can to either get rid of this disease or extend the lives of patients.”

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Dr. Judith Salley
South Carolina State University



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AT&T South Carolina President
Pamela Lackey

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Lung Cancer Survivor
John Sanders



INTERFAITH CHAPLAIN REV. NANCY PELLEGRINI JOINS HOLLINGS

Nancy Pellegrini has wanted to make a difference in the world for as long as she can remember. As a child, she pondered the meaning of life and why bad things happen to good people. Later in college, her sensitivities and intellect turned to halting nuclear proliferation and preventing global warfare.

This calling to be of service and pursue answers to big questions has taken Pellegrini to extraordinary places. Specifically, the Central Intelligence Agency, then to a seminary not far from where she had briefed former President George W. Bush on the Iraqi insurgency, and most recently, to the halls of the Hollings Cancer Center.

Pellegrini joined Hollings in the fall as an interfaith chaplain tending to the spiritual and emotional needs of cancer patients, their loved ones, and cancer center staff. She describes her role as being a “healing presence” for people of all beliefs.

“One of the most important aspects of chaplaincy is realizing that people come with their own spirituality. It is part of what I look at and care about for patients and staff,” she said. “Even people who are not traditionally



religious have something they hold sacred in terms of meaning and purpose. Part of what a chaplain does is to listen to each person’s story and help them recognize the resources for coping in their own lives.”

Pellegrini’s path to pastoral care is fascinating. She holds advanced degrees from the London School of Economics, Fletcher School of Law and Diplomacy, and Wesley Theological Seminary. She served 20 years with Central Intelligence Agency (CIA) as a soviet military analyst, nuclear nonproliferation expert, and

“Part of what a chaplain does is to listen to each person’s story and help them recognize the resources for coping in their own lives.”

senior Iraq military analyst. And listed prominently among her professional accomplishments is a nine-year break from government to work as a “stay-at-home Mom,” during which she dedicated significant time to volunteering with a large ecumenical group of churches. She received her chaplaincy training at Sinai Hospital in Baltimore, MD, and Dartmouth-Hitchcock Medical Center in Lebanon, NH.

“Although it doesn’t seem like it, it all fits together. At first, I wanted to be a part of helping with nuclear arms control. That was on a global level of trying to change the world,” Pellegrini said. “I realized later in my career that I wanted to work with and help people one at a time. I viewed this as an avenue for service and justice.”

Patients can arrange to see Rev. Nancy Pellegrini by contacting any Hollings staff member or calling 843-792-6493.

JESSE HARDY: PATIENT WITH A PURPOSE

Just two days before Thanksgiving 2012, a searing pain in Jesse Hardy’s abdomen sent him to the emergency room of his small hometown hospital in Sumter, SC. A scan revealed a menacing blood clot that required immediate surgery and would place Hardy on a long and difficult medical journey.

Hardy wasn’t in the operating room long before the surgical team discovered multiple tumors covering his liver. He was airlifted to a larger hospital in Columbia where he remained for a few days before being sent, still in a medically-induced coma, to MUSC. Hardy remained at MUSC for several weeks, during which treatment for severe pulmonary problems took precedence over his new diagnosis of advanced liver cancer.

It took nearly three months before Hardy was well enough to meet with Melanie Thomas, MD, a GI oncologist and associate director for clinical investigations at Hollings. Thomas presented Hardy with the option of a clinical trial, and he was one of the last patients to sign up in



June 2013 before the trial, a large multi-center study led by Thomas, closed enrollment. Hardy, a father and grandfather, said he liked the idea of participating in research.

“I was thinking, ‘Maybe this will give me

time to spend with my family. Maybe they’ll find something new,’” he said. “I figured I’d take the journey with the clinical trial, and maybe what little I contribute can help someone else with my kind of cancer.”

In 2011, Hollings launched an awareness campaign with banners and posters throughout the cancer center featuring patients who have participated in clinical trials. Hardy, who was well enough in late summer of 2013 to return to work as a mechanic, volunteered for the campaign.

Hardy said his experience has turned him into an activist. When he took a nearly-seven-foot-tall banner of himself to church, he drew a crowd.

“They wanted to know what I’d done to get myself on a poster, and it gave me a chance to talk to them about clinical trials, and more important, not being so afraid of cancer,” Hardy said. “The treatment I received here is indescribable. It’s totally amazing the things that are being done here. Being a participant in the campaign has been amazing to my life.”

GARLIC STUDY FINDS PROMISE AGAINST DEADLY BRAIN TUMORS

By Dawn Brazell and Vicky Agnew

If you aren't already a fan of garlic, here's new scientific evidence of its cancer-fighting properties.

A team of MUSC clinicians and researchers led by researcher Arabinda Das, PhD, and neuro-oncologist Pierre Giglio, MD, has found evidence that the compound DATS, found in garlic, is effective in blocking pathways of the proliferation of cancer cells and ultimately may help reduce tumor growth in patients with glioblastoma, the most lethal type brain tumor. Their findings were published in the August 2013 issue of *Journal of Neuro-Oncology*.

Glioblastoma is a brain cancer that remains incurable despite aggressive chemotherapy, radiation, and surgical interventions. The study, which found a 60-74 percent rate in tumor shrinkage, has the team of clinicians and researchers involved cautiously optimistic.

Giglio noted that to date only one drug, Avastin, produces significant response rates, and those generally are in the 30-40 percent range. "In the clinic, I declare victory when I don't see any change in the tumor. When you get a response that cuts the tumor down by that sort of percentage, I can't stress how exciting it would be if that would translate to a clinical truth," Giglio said.

It has long been known that plant derivatives have beneficial effects in many diseases. Plant derivatives that are or will be studied at MUSC include lemon, mushroom, green tea, turmeric, soybeans, and ginger, according to Das.

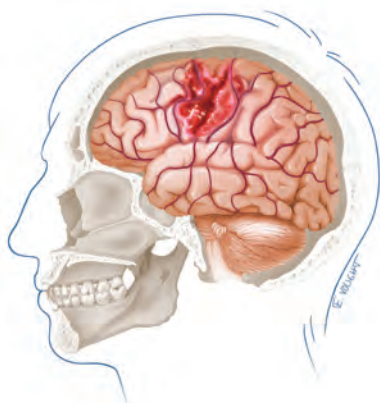
Researchers tested the garlic-derived organo-sulfur compound DATS in two ways. They applied it directly to glioblastoma cells taken from tumors removed from patients. Also, they placed these cells in immunosuppressed mice using an orthotopic xenograft model, in which the tumor cells are implanted in the site of origin, a technique advantageous for its ability to mimic local tumor growth and pathways of metastasis.

"Glioblastoma cells have a lot of strategies that allow them to evade the body's immune defense systems, evade the treatments that we may give, and most importantly, develop a resistance to the treatments that we give," Giglio added.

DATS compound seems to have a selective effect on the cancerous cells and not the normal cells. The team wants to explore all mechanisms by which the compound may be working against cancer cells. The response rate suggests it works in more than one pathway to block the cancer. Researchers caution, though, that they are not recommending garlic consumption as a cure for glioblastoma or other cancers.

There are plans to test the DATS compound in a larger animal model and eventually as a nasal application to be delivered in a nanoparticle. Giglio said the hope is that the nanoparticles will prove small enough to pass through the blood-brain barrier, allowing the compounds they carry to leach out slowly to the area of the brain tumor.

The full text of this article can be found at: <http://academicdepartments.musc.edu/pr/newscenter/2013/garlic.html>



Glioblastoma is one of the most lethal brain tumors.

■ Highlights

KEANE NAMED EDITOR OF URO TODAY

Thomas E. Keane, MD, Chairman of MUSC's Department of Urology, has been named editor-in-chief at UroToday, a digital publisher of daily health news and information about genitourinary cancers and other urologic conditions affecting men and women. Keane's research has led to publication of more than 100 articles in peer-reviewed journals such as the *Journal of Urology*, *Urologic Oncology*, and the *Journal of Vascular Surgery*. He has served a principal investigator or co-investigator on more than 20 major studies funded by the NIH and private industry.

SC LEGISLATURE FUNDS SCREENINGS

The SC Legislature awarded \$600,000 to Hollings to support its Mobile Health Unit (MHU). Since 1998, the MHU has served as a medical office on wheels in rural communities for breast, cervical, skin, and prostate cancers. The mobile program also provides screenings for worksite partners and hosts cancer awareness events at central locations in many communities.

Since 2006, the MHU has provided nearly 16,000 screenings, many of which were free or low cost. Of those screened, 57 percent report that they would not have sought out cancer screening had MHU not visited their communities.

NIH FUNDS HOLLINGS RESEARCHERS

Three Hollings researchers received funding from the National Institutes of Health in the fall.

Hollings Cancer Center Director **Andrew S. Kraft, MD**, received an award to continue studying drug resistance mechanisms in prostate cancer. The research builds on a prior discovery by Kraft about an enzyme implicated in prostate cancer initiation and growth.

Michael B. Lilly, MD, Co-Associate Director for Translational Research, received an award for research exploring whether plant-derived nutrients will improve the effect of chemotherapy by increasing cell kill or decreasing toxicity from chemotherapy. The specific hypothesis is that lycopene (a red pigment in tomatoes) will enhance the effect of chemotherapy by inhibiting an enzyme called the insulin-like growth factor receptor (IGF-1R).

Matthew J. Carpenter, PhD, Associate Professor of Psychiatry & Behavioral Sciences, received funding for a project exploring the effectiveness of different interventions for smokers. The project will explore the impact of short-term use of nicotine replacement therapy (patch and lozenge) on smoking behavior.

■ Philanthropy

DEBBIE BORDEAU JOINS HOLLINGS AS DEVELOPMENT DIRECTOR

It is said that the word “philanthropy” was coined in the 5th century by playwright Aeschylus, and that it signals a love of humanity so strong that one is compelled to solve societal problems at their root cause by giving. For Debbie Bordeaux, philanthropy also means the power to transform, and this is where she applies her passion to do the same.

Bordeau joined Hollings in the fall as the center’s new Director of Development. She said working closely with people driven to make life better for others gives her a sense of great purpose.

“I work with so many people who dream of leaving a better world, and I want to help them fulfill their wishes,” Bordeaux said. “I have seen philanthropy in action many times, and its power to change things is just incredible.”

Bordeau brings 20 years of development experience to the cancer center. Before joining Hollings, she served for 11 years as Director of Development for MUSC’s Department

of Neurosciences. Prior to that, she held key fundraising roles with the Lowcountry Open Land Trust and the Historic Charleston Foundation.

Hollings Director Andrew S. Kraft, MD, said Bordeaux brings strong leadership to the cancer center at a critical time. Unprecedented economic problems since 2008 and sequestration over the past year have significantly reduced state and federal funding for cancer research.

“We are at an important juncture in cancer research and treatment. In many ways, technology has caught up with our scientific ambitions to solve the many mysteries of cancer, yet progress is threatened by diminished funding,” Kraft said. “Donor support of our mission is more important than ever, and we are glad to have someone with Debbie’s talent and drive leading our philanthropy team.”

In the past year, Bordeaux and her family have had to learn more about cancer than most families do in a lifetime. An uncle died



of bladder cancer, her father was diagnosed with prostate and bladder cancer, and her mother-in-law’s breast cancer metastasized to her brain.

“Early on, I discovered that through fundraising I could help make a difference for a cause I was passionate about,” she added. “But this is not simply a career for me. This is personal. Hollings is one of the largest and most respected programs on campus, and I am thrilled to be a part of the team.”

ATHENE ANNUITY

Athene Annuity & Life Assurance Company has been a generous supporter of Hollings and MUSC for many years. The company has funded research through the SmartState Center of Economic Excellence in Cancer Center Stem Cell Biology & Therapy, and supported training the next generation of cancer disparities researchers through the Research Scholars Program.

It is fitting that Athene’s generosity would extend to the art of healing by donating a portion of its exquisite international textiles collection to Hollings. Each textile tells a larger, continuing story of people and their traditions, which often begins with collecting fibers, spinning, dyeing, and weaving. Exhibitions from the collection have been shown at the Greenville County Museum of Art and the Spoleto Festival USA in Charleston.

“We are pleased to make this gift in support of Hollings and its focus on patient-centered care,” said Chip Smith, President of Athene Annuity & Life Assurance Company. “It is our hope that these pieces will create an atmosphere for cancer patients and families that is both serene and hopeful, helping heal the body by comforting and uplifting the spirit.”

A selection of 100 works, including garments, art, and artifacts, will be on permanent display throughout MUSC and Hollings.



SIXTH ANNUAL GOURMET AND GRAPES

The Sixth Annual Gourmet & Grapes Culinary Extravaganza benefiting the Hollings Cancer Center adds new events to raise money for research and patient care.

The weekend-long celebration is scheduled for February 7-9, 2014, at the Sanctuary at Kiawah Island Golf Resort. This festive weekend boasts a number of events geared to all levels of appreciation for great food and wine – from novice to connoisseur – with the best chefs from the Southeast and winemakers from around the world.

New this year will be private dining during Friday's black-tie Epicurean Affair, an elegant multicourse dinner with wine pairings. These private settings for small groups in The Sanctuary's private dining rooms bring a more intimate feel and allow guests to spend time with The Sanctuary's culinary visionaries and vintner Rob Davis of the renowned Jordan Vineyard and Winery, of Sonoma, CA.

Other Gourmet & Grapes hallmarks - Saturday's multicourse Culinary Luncheon and accompanying food and wine demonstration - will feature Executive Chef Colin Bedford of Fearington House Restaurant of Pittsboro, NC. Pouring wines that afternoon will be Mira Winery of Napa, CA.

"I am glad to lend a hand in raising funds to support cancer research. Cancer seems to touch the lives of just about everyone at some point. Here's hoping the research will lead to more breakthroughs," Bedford said.

Wine Odyssey Gala & Farewell Brunch

Gourmet & Grapes peaks Saturday night with the lively Wine Odyssey Gala under an elegant tent on the The Sanctuary's oceanfront Grand Lawn.

The Gala brings together an elite group of talented chefs with some of the world's leading winemakers. The Gala features silent and live auctions, live music, dancing, and a champagne and chocolate afterglow.

The elegant and fun weekend concludes Sunday with the Farewell Brunch and salute to the chefs at Jasmine Porch.



Tickets and Details

Gourmet & Grapes tickets may be purchased for the entire weekend or individual events. Sponsorships are also available for all events. For details, please go to gourmetandgrapes.com or contact the Hollings Cancer Center Office of Development at **843-792-9335**.



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■ New Faculty



Kevin F. Staveley-O'Carroll, MD, PhD
Professor, Department of Surgery
Chief, Section of Surgical Oncology
Medical Director, Hollings Cancer Center
Clinical Service Line

S. Lewis Cooper, MD, Assistant Professor, Department of Radiation Oncology

Sarah B. Giordano, MD, Assistant Professor, Division of Hematology/Oncology

Jussuf T. Kaifi, MD, PhD, Assistant Professor, Department of Surgery

Scott M. Lindhorst, MD, Assistant Professor, Division of Hematology/Oncology
and Department of Surgery

Eric T. Kimchi, MD, Assistant Professor, Department of Surgery

Dag Pavic, MD, Assistant Professor, Department of Radiology & Radiological Science

Lindsay L. Peterson, MD, Assistant Professor, Division of Hematology/Oncology

Jason P. Ulm, MD, Assistant Professor, Department of Surgery

Graham W. Warren, MD, PhD, Associate Professor, Department of Radiation Oncology
Vice Chairman for Research, Department of Radiation Oncology