

notes

FALL 2014

Improving Life for People with Serious Illnesses *by Angela Spivey*

In 2013, Janet Early received a cord blood transplant to treat a rare blood cancer called mantle cell lymphoma. Unfortunately, she developed graft-versus-host disease, in which the transplanted cells began attacking her body as if it were a foreign invader.

Early is fighting this complication with the same intensity she used in her 20-year career as an intensive care unit nurse. She has the help of not only the Duke bone marrow transplant team, but also Arif Kamal, MD, a palliative care specialist and medical oncologist who is helping Early manage her symptoms and regain her quality of life.

When Early first began seeing Kamal, about six months ago, she was hospitalized with severe pain and vomiting caused by the graft-versus-host disease. Together, they have gotten the pain mostly under control.

Early is fighting this complication with the same intensity she used in her 20-year career as an intensive care unit nurse.

could do and how he might help.”

Kamal treats Early as part of the five-days-a-week palliative care clinic offered to Duke patients with cancer and other serious illnesses. Patients can see a team of palliative care specialists—Kamal, who is an oncologist, or others trained in internal medicine, geriatrics, or psychiatry.

While many may associate palliative care with hospice care, it is much broader than that. “The modern definition of palliative care is a focus on quality of life by providing an extra layer of support, independent of prognosis, for all patients with serious illness,” Kamal says. “We’ve embedded palliative care physicians



Jared Lazarus, Duke Photography

Early is fighting this complication with the same intensity she used in her 20-year career as an intensive care unit nurse.

Now back home in Cary, North Carolina, Early visits Duke’s bone marrow transplant clinic weekly, often receiving blood transfusions. She sees Kamal monthly. Between visits, Kamal gets regular updates about her from the bone marrow transplant team.

“Dr. Kamal is great. He listens,” Early says. “When he comes in to see me, he has already thought about what we

Palliative care specialist Arif Kamal is helping Janet Early regain her quality of life while she fights graft-versus-host disease (a complication from a cord blood transplant).

inside the cancer center so that a patient can see a lung cancer oncologist and a surgeon and then come see the palliative care team as well.”

A hallmark of a palliative care visit is time spent listening to the patient. On an initial visit, Kamal may spend as long as 60 minutes talking about the patient’s understanding of his or her illness and prognosis, goals and worries for the future, and any troublesome symptoms.

Kamal, who is also Director of Quality and Outcomes for Duke Cancer Institute, at one time planned to practice as a breast oncologist and lead breast cancer clinical trials, inspired by his mom’s breast cancer diagnosis.

But during his residency at the Mayo Clinic, his mother’s condition worsened. Helping his mom through her treatment and subsequent death, including hospice care, led Kamal to decide

Continued on page 4

A Very Visible Thank You

By Angela Spivey

Glenn Boyette of Clayton, North Carolina, was so happy with the services he received from the Duke Cancer Patient Support Program that he decided to show his thanks in the design of his annual five-acre cotton maze at Clayton Fear Farm.

While being treated at Duke Cancer Institute, Boyette and his wife, Bonnie, turned to the Duke Cancer Patient Support Program for counseling and therapy.

To say thank you, Boyette carved “Duke Cancer Patient Support” and the Duke Medicine logo into the maze, which is one of several attractions he operates at his farm during the month of October.

In addition, Boyette donated a portion of the farm’s proceeds—\$5,000—to the cancer patient support program. ♥



HOW TO HELP

The Duke Cancer Patient Support Program helps more than 7,000 patients each year, offering all services to patients and their families free of charge. To donate to the program, visit: gifts.duke.edu/cancersupport.

Parkins Ovarian Cancer Walk Celebrates a Successful Twelfth Year

by Carson Riedel



Courtesy of Melanie Bacheler

The walk's impressive attendance can be attributed in large part to the tenacity and unflagging dedication of its founder, Melanie Parkins Bacheler. Bacheler (pictured here with her family, in center, hugging child) created the event as a tribute to her mother, Gail, who died of ovarian cancer in 2001.

"It was originally started as a way to help me channel my grief, since losing my mother was so hard," Bacheler says. "I never dreamed I would continue to plan it each year, but when I see the faces of all the survivors, when I get a hug from a stranger telling me how much she appreciates the day and how important raising awareness and money is, I stay committed to doing it for them. As long as people keep coming, I promise to keep doing it."

Despite a glowering sky and intermittent drizzle, the 2014 Gail Parkins Memorial Ovarian Cancer Walk & 5K Run attracted a robust turnout. The event drew 130 teams, the most in its 12-year history, and raised \$334,000 to support ovarian cancer research at Duke Cancer Institute.

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One Extra Step

At Duke Cancer Institute, our arsenal in the fight against this difficult disease includes the usual weapons such as surgery, chemotherapy, and radiation. But we don't stop there; we take the extra steps that are equally important but sometimes overlooked—providing compassion, communication, and support. In this issue of DCI Notes, you will read about our national leadership in the field of palliative care, which provides anyone with a serious illness an extra layer of support to ensure his or her quality of life is the best it can be.

In these pages you will also learn how a medical student, after publishing the results of his basic research, delved further into his work and consequently revealed a potential new therapy for a rare childhood cancer.

Though cancer is a daunting enemy, the good news is that so many supporters have joined Duke Cancer Institute in our fight against it. As you will read, one person can make a big difference. Some

of our long-time supporters have started with a small step and have been gratified at how large the impact of their efforts has grown.

What small thing can you do today to help? You can participate in our reader survey to tell us how we're doing in spreading the word about our efforts to defeat cancer. Or, consider launching a personal fundraising page to celebrate a special event or honor a loved one. Our new online tool, mydukecancerfund.org, makes it easier than ever to become a partner in our quest to cure cancer. Thanks for all of your efforts,



Michael B. Kastan, MD, PhD
Executive Director, Duke Cancer Institute
William W. Shingleton Professor of
Pharmacology and Cancer Biology



We Want to Hear from You

What would you like to see in DCI Notes in the future? What can we do to better bring you the information you need about preventing and fighting cancer? What kinds of stories would you like to read about the doctors, staff, and supporters who help Duke Cancer Institute in its quest to cure cancer?

Please let us know by taking our online reader survey.

Fill out the survey by May 1, 2015, to receive a small thank-you gift featuring the Duke Cancer Institute logo. To take the brief survey, please visit: bit.ly/ZB3axV.

Thank you!

New Walking Group Offers Fun, Exercise for Duke Oncology Survivors

by Vanessa Gruver

According to the American College of Sports Medicine, cancer survivors, including those undergoing treatment, can benefit from exercise.

"In the past, many physicians prescribed rest for their patients diagnosed with cancer," says Emily Lewis, a fitness specialist with the Duke

Cancer Institute Genitourinary Oncology Group and Survivorship Center. "At a recent roundtable of the American College of Sports Medicine, members recommended new guidelines strongly urging exercise for cancer survivors. These guidelines recommend at least 150 minutes per week of moderate-intensity aerobic activity."

To provide a means for cancer survivors to focus on health and wellness, Lewis is organizing *Healthier Happier YOU*, a walking group custom designed for Duke oncology survivors.

"Some studies show that cancer survivors engaged in an exercise regimen can experience decreased symptoms and improve quality of life," Lewis says. "Our walking program will promote exercise while bringing former cancer patients together in a fun and encouraging environment."

The walking group is made up of individuals who, each in his or her own way, understand the survivor's journey. Whether a cancer patient has recently finished with treatment or is a longtime survivor, members of *Healthier Happier YOU* uniquely support one another every step of the way.

Shirley Maness of Burlington, North Carolina, was diagnosed with stage 2 breast cancer four years ago and serves as a prime example of the benefits associated with regular physical activity. "My husband and I set a goal to exercise at least

one hour each day," says Maness, who has been cancer free for three years. "Exercise has become a part of our daily routine."

Maness has lost 50 pounds since focusing on healthy lifestyle choices and incorporating regular physical activity. She proves that having a partner or group to exercise with, in her case, her husband, can offer accountability and lead to long-term success.

The new walking group will set aside time for setting goals and sharing information. The program provides material on educational and community resources specifically geared toward health and wellness for cancer survivors.

The group meets at the entrance to Duke Gardens every Tuesday at 12:30 p.m., Thursday at 5:30 p.m., and Friday at 7:30 a.m. Details on an exact meeting location will be provided at the time of registration.



Photo by Karen Butler

Cancer survivor Shirley Maness steps out with Emily Lewis, a fitness specialist with DCI, for a Healthier Happier YOU. Since adopting a regular exercise regimen, Maness has lost more than 50 pounds.

HOW TO REGISTER

To learn more or to register for the *Healthier Happier YOU* walking club, please contact the Duke Cancer Institute Survivorship Center at 919-681-4707 or via email at survivorship@dm.duke.edu.



Kastan signs the American Academy of Arts and Sciences' Book of Members.

Michael Kastan Elected to American Academy of Arts and Sciences by Duke University News

Michael Kastan, MD, PhD, executive director of the Duke Cancer Institute and the William W. Shingleton, MD, Professor of Pharmacology and Cancer Biology in the School of Medicine, has been elected as a member of the prestigious American Academy of Arts and Sciences.

In addition to being one of the nation's most prestigious honorary societies, the academy is also a leading center for independent policy research. Members contribute to academy publications and

studies of science and technology policy, energy and global security, social policy and American institutions, and the humanities, arts and education. Prior to joining Duke as the inaugural director of Duke Cancer Institute in 2011, Kastan served as director of the Comprehensive Cancer Center at St. Jude Children's Research Hospital. A pediatrician and an accomplished laboratory scientist, he is a leading expert on the role of abnormal DNA repair mechanisms in human cancer. ▀

Partnering to Fight Cancer

Elizabeth Harden, MD'78, HS'81-'84, and **Richard Hoefler, DO**, have known the value of a good partnership since they met 30 years ago, while both were serving in the Air Force in Texas. They've been a couple ever since, in life and in work. Harden, a medical oncologist, and Hoefler, a surgical oncologist, work in different practices in Newport News, Virginia, but they regularly care for the same patients. "You can't be a good medical oncologist by yourself," Harden says. "You need surgeons, radiologists, radiation oncologists."

Duke Cancer Institute's mission to bridge boundaries to provide multidisciplinary cancer care led Harden and Hoefler to make an estate gift that supports both of their professional passions, in the form of an endowed pilot fund and a professorship. "Bench research that gets translated to the bedside gives me the tools I need to take care of my patients," Harden says. A professorship rounds out their gift. "We wanted to make sure Duke has the funding to keep good people," Hoefler says.

Harden's Duke education and training influence her daily. "The Duke colleagues I met and continue to work with and the excellence demanded of us made me the doctor I am today," she says. ▀



Photo by Joe Fudge

PLANNED GIVING

To learn more, please contact:

Joseph W. Tynan, JD, Executive Director of Gift and Endowment Planning 919-385-3114 or joseph.tynan@mc.duke.edu.

Palliative Care Continued from page 1



Arif Kamal and Janet Early

to pursue a fellowship in palliative care. "My mom received good care, but I couldn't help but look at the whole thing and think, 'I would be a better physician if I understood how to counsel others about this process.' There weren't a lot of people around me who could say, 'This is what high-quality palliative care looks like,'" he says.

So Kamal refashioned himself into an oncologist

who helps cancer patients in need of support and who studies how to improve palliative care. "I can't imagine doing anything else," he says.

Early is not giving up. Her next immediate goal is to reduce the nausea that plagues her daily, so that she can feel like eating, instead of relying on IV nutrition. "You want so badly to get well and be able to progress," Early says. During a September 2014 visit, Kamal switched her to a different regimen of pain control to try to ease the nausea. "We've got the pain down pretty good, now we just have to get rid of the nausea," Early says. "And we will. I can't thank Dr. Kamal enough." ▀

DUKE'S LEADERSHIP IN PALLIATIVE CARE

- Duke co-leads the Palliative Care Research Cooperative Group—the only palliative care clinical trials network in the United States—with the University of Colorado at Denver. The 33-site group promotes and conducts studies to understand how to best relieve suffering and improve quality of life for patients receiving palliative care.
- Duke Cancer Institute's Cancer Network won a 2014 Innovator Award from the Association of Community Cancer Centers for developing an innovative web-based tool to measure quality of palliative care and guide physicians conducting palliative care visits.
- DCI palliative care specialist Arif Kamal, MD, is one of 10 recipients of the Cambia Health Foundation's Sojourns Scholar Leadership Program, which recognizes leadership in palliative care. As part of the program, Kamal receives a two-year, \$180,000 grant to support his research exploring the relationship between quality measures in palliative care and patient-centered outcomes, including how much patients communicate their health changes as well as how much they use health services.
- Duke researchers led by Richard Riedel, MD, have shown that daily inpatient palliative care services offered at Duke University Hospital reduced rates at which cancer patients were sent to intensive care or readmitted to the hospital after discharge.

BLUM 5K offers hope, support for multiple myeloma patients *by Bernadette Gillis*

The third annual BLUM (Beat, Learn, Understand Multiple Myeloma) 5K was set to begin much like it had in the past. An impressive 250 runners had pre-registered for the March 22 race, leaving organizers feeling optimistic. But nothing prepared them for what they saw in the minutes before the race was scheduled to start.

The event's namesake, Scott Blum, a multiple myeloma patient, had expected to see the majority of the runners gathered at the starting line, but instead he noticed an unusual amount of activity still going on at the registration area. He found his wife Jennie and asked, "What's the delay?" She simply pointed and said, "Look over there."

That's when Blum saw that a line of people – nearly a hundred – were waiting to register. The unexpected crowd included patients and supporters, some who had traveled for miles by bus. Seeing so many people in line to support the event brought tears to Blum's eyes.

"We had to delay the race because we had so many people who showed up that day to register," he says. "It was really overwhelming."

The hope of finding a cure for multiple myeloma, a type of cancer that forms in plasma cells, is what brought Blum and the runners together for the race, which was held at Bond Park in Cary. This year, they raised \$17,750 in support of multiple myeloma research at Duke, bringing the event's three-year total to more than \$30,000.

Blum still finds it hard to believe that in three short years, he and his family have been able to raise tens of thousand of dollars and generate awareness for a cancer that few people know about.

The American Cancer Society estimates about 24,050 new cases of and 11,090 deaths from multiple myeloma in the United States in 2014.

Although multiple myeloma affects a small fraction of the population, Blum and his family are quite familiar with the toll it takes on patients and their loved ones. That's why Blum's daughter, Ashley Johnson, who was a high school junior when Blum was first diagnosed in 2005, made it her mission to do

something meaningful for her father and others affected by the cancer.

"Since he was diagnosed, I had always felt like I wanted to do something more to bring awareness to it," Johnson says, adding that people often mistake myeloma for melanoma, a skin cancer.

"Talking with a couple of my good friends one night, I told them that I wanted to find a way to spread awareness of this cancer," she recalls. "Someone suggested the 5K. I'm not a runner, but I had always thought that was the easiest way to bring people together. We picked a day, and it's just blown up from there."

The BLUM 5K has brought families together, many who had never before met others affected by the cancer, Johnson says.

"If nothing else, what we're doing is bringing patients together to be there for each other and to share different experiences, good or bad, and just for families to lean on each other," she says. Blum first learned he had multiple myeloma

What we're doing is bringing patients together to be there for each other and to share different experiences, good or bad. – Ashley Johnson

after a routine medical physical in October 2005. His treatment included receiving two rounds of chemotherapy. Then his doctor at Duke, Cristina Gasparetto, MD, harvested his



Scott Blum with his grandson Braylon at the 2014 BLUM 5K.

stem cells, which were put back into his body in January 2006 as part of his transplant.

There is no cure for multiple myeloma, but Blum says he was "as close to remission as I could possibly get at that point." However, after 16 months of Blum doing well, the cancer cells returned, and he tried other treatment options including taking an experimental combination of existing drugs as part of one of Gasparetto's clinical trials.

Today Blum continues to take medication, and his doctors monitor his blood counts closely. He is not in remission but is doing well overall. "Dr. Gasparetto likes to say I'm in the smoldering stage," Blum says.

The family is pleased that the BLUM 5K has grown from a small family event into something much bigger, not only raising funds for research but also helping to save lives.

Each year at the race, the organization Be the Match offers participants a chance to join the bone marrow donor registry and potentially help patients with life-threatening blood cancers and other illnesses. As a result, Blum says two of his friends successfully became bone marrow donors.

"When you think that somebody was probably going to lose their life, but (that did not happen) because of one person, it's just truly amazing," Blum says. ♥



Scott Blum's family started the BLUM 5K after he was diagnosed with multiple myeloma. Scott Blum with (from left), his wife Jennie, his daughter Ashley Johnson, and friend and race co-organizer Karen Parsons.

Give Back, Your Way

In honor of his mom, Barrett Whitten is climbing the highest peaks of all the world's continents to raise awareness of and research funding for colon cancer.

Duke alumnus Joe Lichtenberger celebrated his 40th birthday by asking his friends and family to help him raise \$40,000 for research at Duke Cancer Institute.

All of these people or their loved ones have been touched by cancer and have found support and help at Duke Cancer Institute.

Each found his own personal way to give back. Now you can too.

We invite you to become our partner in the fight against cancer by creating a *myDuke* Cancer Fund page at mydukecancerfund.org.

This online tool makes it easy for you to set up a personalized giving page where you can tell your story, upload photos, and set your fundraising goal. Your page can honor someone special, celebrate the memory of a loved one, or celebrate an event.

Donations raised by *myDuke* Cancer Fund pages support Duke Cancer Institute researchers who are working every day toward realizing our vision of a world without cancer.

Every gift, no matter the size, brings us one step closer to the cure.

Visit mydukecancerfund.org to get started.



*my*DUKE CANCER fund



Common Chemical May Stimulate Growth of Breast Cancer Cells *by Angela Spivey*

Bisphenol A (BPA), a chemical commonly used in plastics, appears to increase the growth of breast cancer cells, Duke Cancer Institute researchers have found.

The researchers also found that BPA doses at the levels typically found in human blood lowered the efficacy of FDA-approved anti-cancer drugs used in breast cancer therapy, including lapatinib.

“Cancer patients must understand there’s a component in their daily lives that could influence their treatment outcomes,” says Gayathri Devi, PhD, associate professor of surgery and a Duke Cancer Institute member.

Devi and colleagues investigated whether common chemicals such as those in plastics, pesticides, and insecticides could change the effectiveness of breast cancer treatments in the amounts that people are routinely exposed to.

Using high-content screening methods that apply various chemicals to cancer cells simultaneously, the researchers evaluated a panel of compounds available through a public library of chemicals managed by the Environmental Protection Agency. The screening measured how different doses of

each environmental chemical changed cancer cells, made them grow, or killed them.

“BPA was one of the top chemicals to show growth stimulatory effects in breast cancer cells,” Devi says. BPA stimulated proliferation in both estrogen-receptor-positive and estrogen-receptor-negative breast cancer cells.

“These studies provide the foundation for

Cancer patients must understand there’s a component in their daily lives that could influence their treatment outcomes. – Gayathri Devi, PhD

additional research to develop tools that can be used to identify patients who may be at greater risk of developing treatment resistance,” Devi says. “The findings could also lead to biomarkers that identify patients who have heavy exposure to compounds that could diminish the effectiveness of their cancer therapy.”

In addition to Devi, study authors at Duke include Scott Sauer, PhD, a postdoctoral fellow supported by a National Cancer Institute training grant; John Davis, an undergraduate student in

Duke Cancer Institute researchers found that BPA, a chemical commonly found in plastics, seems to increase the growth of breast cancer cells.

the Global Health Program; Akshay Save, an undergraduate student in the chemistry and math departments, and breast cancer surgeon H. Kim Lysterly, MD. Additional authors include Imran Shah, PhD, researcher at the Environmental Protection Agency; and Kevin Williams, PhD, faculty at North Carolina Central University.

The study was funded in part by Duke Cancer

Institute’s Cancer and the Environment Initiative, as well as the Duke Department of Surgery D.P. Bolognesi Award, the American Cancer Society, and the National Cancer Institute.

Devi and colleagues reported their findings at two scientific meetings, including a joint meeting of the International Society of Endocrinology and the Endocrine Society (June 22, 2014) and at the EPA’s ToxCast Data Summit (Sep 30, 2014). ■

Studies Suggest Possible New Treatment for Neuroblastoma *by Angela Spivey*

Research from the lab of Gerard Blobe, MD, PhD, has shown that an ancient blood-thinning drug, and possibly other existing drugs, have the potential to help babies with a rare cancer when they don’t benefit from other treatments.

Blobe, professor of medicine, has long studied a receptor called Transforming Growth Factor Beta Receptor Type III (TβRIII) and has shown that in many cancers, the expression of this receptor is silenced, leading to cancer progression. Then MD-PhD candidate Erik Knelson began working in Blobe’s lab and decided to study the role of TβRIII in neuroblastoma, a cancer that forms in immature nerve cells.

It has long been known that when a neuroblastoma has less surrounding tissue, called stroma, the cancer is more aggressive. But no one knew exactly why.

Knelson found that the stroma contains large

amounts of TβRIII, as well as other receptors that have similar properties. He also found that TβRIII causes neuroblastoma cells to start to differentiate—to begin to grow into mature cells. That is a good thing. Neuroblastoma is a cancer of immature neurons, and forcing neuroblastoma cells to differentiate and act more like adult neurons slows down the cancer.

As it turns out, the anti-clotting drug heparin also shares properties with TβRIII. Knelson showed that a form of heparin, modified so it

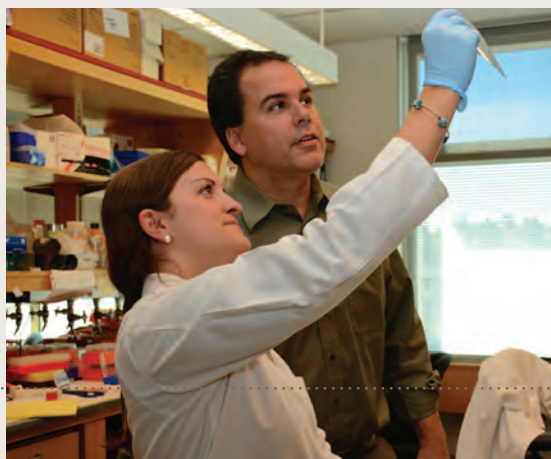
wouldn’t cause bleeding, inhibited neuroblastoma in mice and in human cell lines.

While Knelson has left the lab to finish his last year of medical school, other students are working to translate these findings to the clinic. Collaborating with Mike Armstrong, MD, PhD, assistant professor of pediatrics, Blobe’s lab will study modified heparin in human neuroblastoma cells grown in mice and will evaluate other existing drugs that they suspect will complement heparin in fighting neuroblastoma.

Those therapies include HDAC inhibitors, which are used to treat a type of lymphoma, as well as decitabine, which is currently used to treat blood cancers.

“These are all commercially available drugs that have already been safety tested in

Collaborator Angie Gaviglio with Gerard Blobe.



Four Receive 2014 Shingleton Award *by Carson Riedel*

Duke Cancer Institute has selected Nancy and Gordon Wright, William Caler Jr., and Gerhard Cless to receive its prestigious Shingleton Award in 2014. Named for the institute's visionary founder and *emeritus* director, the late William W. Shingleton, MD, the award is bestowed annually to a few esteemed individuals who have demonstrated exceptional service and generosity in furthering the institute's mission to defeat cancer.

Nancy and Gordon Wright's charitable relationship with Duke Cancer Institute (DCI) has been an enduring one, spanning nearly 20 years. Both cancer survivors, the Wrights have served as dedicated members of the DCI Citizens Advisory Council since 1995, with Nancy Wright taking over the reins of the council as chair from 2000 to 2004. In addition, the Wrights have been Shingleton Society members since 2000, and significant donors to the Citizens Advisory Council Endowment and Gockerman Research Funds. "We know



William Caler Jr.



Gerhard Cless

that we're here today because of Duke's cancer research, the knowledge gained from that research, and the skill of the extraordinary physicians, nurses, and staff who provided us with life-saving care," Nancy Wright says.

William Caler Jr.'s interest in supporting oncological research at Duke ensued shortly after his sister, Rosa May, was diagnosed with esophageal cancer in 2004. "All of her physicians at Duke were highly qualified people who worked well together," Caler says. "It was wonderful that she could be treated under the leadership of Duke physicians while in Florida." In the decade since, Caler has been a generous contributor to DCI as well as a respected member of the Shingleton Society, James B. Duke Society, and the DCI Board of Advisors.

Gerhard Cless joined forces with DCI shortly after his son Bryan was diagnosed with a malignant brain tumor in 2002 and treated at Duke. Since then,



Gordon and Nancy Wright

Cless and his wife, Ruth, have been invaluable advocates for cancer research at the Preston Robert Tisch Brain Tumor Center, whose team they believe to be "the best in the world." Gerhard Cless has also served on the Duke Brain Tumor Program Board of Advisors since 2003, becoming its chairman in 2008. Furthermore, he has contributed extensively as a member of the Shingleton Society, Braxton Craven Society, James B. Duke Society, Horizon Society, and Pinnacle Society.

"It was William Shingleton's spirit of enormous generosity that proved so instrumental in transforming Duke's cancer program into the leader it is today," says DCI executive director Michael Kastan, MD, PhD. "I believe the four recipients we've chosen for this year's award, in their remarkable service to the DCI, are true exemplars of that spirit." ▀

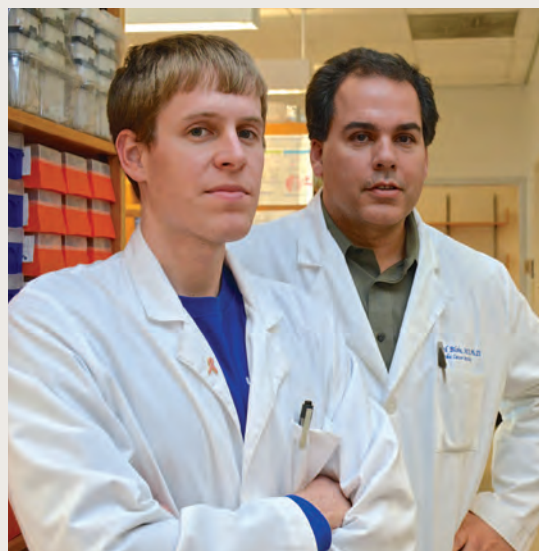
To help raise funds for a future clinical trial, Blobe's lab formed a team to participate in a fundraiser organized by the nonprofit Alex's Lemonade Stand.

humans, and we are looking at how we can combine these specifically for neuroblastoma patients," Blobe says. "There is a relatively easy road to translation here."

THE ROAD TO FUNDING

For Blobe, that road to translation has also included running, biking, and walking.

To help raise the funds needed for a future clinical trial (about \$150,000), Blobe's lab formed a team to participate in Alex's Million Mile, a fundraiser organized by the nonprofit Alex's Lemonade Stand. Teams logged their active miles during the month of September 2014 and asked



Story photos by Karen E. Butler

sponsors to donate for every mile logged.

The twist: for scientists like Blobe who have received research grants from Alex's Lemonade Stand, every dollar their team raises goes back to them as additional funds for research, and Alex's Lemonade Stand will match it.

"This is the first time I've ever held a fundraiser for my lab," Blobe says. Blobe's team of about 90 people, "The Blobetrotters," raised \$13,875 during the month-long fundraiser. ▀

Erik Knelson and Gerard Blobe and colleagues have found that a modified form of the blood-thinning drug heparin may be an effective treatment for a rare pediatric cancer.

If you prefer to receive this newsletter by e-mail, please visit dukecancerinstitute.org/notes.

ask the expert

Women with DCIS Do Have Treatment Options

E. Shelley Hwang, MD, MPH, chief of breast surgery and professor of surgical oncology, is a nationally recognized expert on ductal carcinoma in situ (DCIS). She is working to offer tailored treatments to women diagnosed with the disease.

WHAT IS DCIS, AND WHAT ARE THE CURRENT TREATMENT OPTIONS?

DCIS, which develops in the milk ducts of the breast, is the most common type of non-invasive breast cancer. More treatment options are available than many people realize. Depending on the type of DCIS you have, traditional treatments include hormonal therapy, lumpectomy, lumpectomy with radiation, or mastectomy.

WHY IS IT IMPORTANT TO TAILOR TREATMENT TO THE INDIVIDUAL?

While the number of women being diagnosed with DCIS is on the rise, not all cases will develop into invasive cancer. DCIS is often diagnosed so early that doctors don't know when it will progress or if it will progress. Mastectomy, which is performed on 30 percent of women with DCIS, is a high price to pay for a disease with very little mortality.

WHAT METHODS DO YOU USE CURRENTLY TO TAILOR TREATMENT?

If you have DCIS now, it's important to educate yourself about your treatment options, and work with a team that is committed to creating a treatment plan that best matches your goals.

When you go to a multidisciplinary center like Duke, you get the combined input of all the cancer specialists who are making decisions about your care, and who are on top of the latest research. At Duke, we are committed to making sure you get the treatment approach for your disease that is the best one for you and your overall health. We consider several factors, including a person's age when they get DCIS, as well as the size of the tumor when it is diagnosed. We also evaluate the types of cells involved to determine how aggressive they are. We use these factors to create a prediction of a woman's risk for recurring DCIS and invasive breast cancer.

In addition, a new molecular test is being used to identify 12 genes associated with DCIS. This test could help us identify which women have a favorable gene profile that could protect them from developing invasive breast cancer in the future. Our clinical observations can be combined with the genetic test to arrive at a more complete DCIS assessment. While not all women are appropriate candidates for this additional testing, it has been found to help some patients and providers make important treatment decisions.

WHAT NEW METHODS OF TAILORING TREATMENT ARE ON THE HORIZON?

More research is being done to help doctors refine our predictions about DCIS. There may be some women who are at such extremely low risk that they could be treated without any surgery at all. For those women, active surveillance, such as is often offered for men with early stage prostate cancer, could be an option.

The challenge is how to identify those low-risk women. I am leading a project sponsored by the National Institutes of Health and the



When you go to a multidisciplinary center like Duke, you get the combined input of all the cancer specialists who are making decisions about your care, and who are on top of the latest research.

Department of Defense to evaluate whether the genes and proteins in DCIS could help predict which women are at the lowest risk of cancer progression even without treatment. Such research will help future patients and doctors make better treatment decisions about DCIS. ▀