

—cancer lines—

—in this edition—

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Patient and Family Resource Center celebrates 30 years serving patients and their families

Nurse and researcher tackles public health issues in North Carolina and abroad



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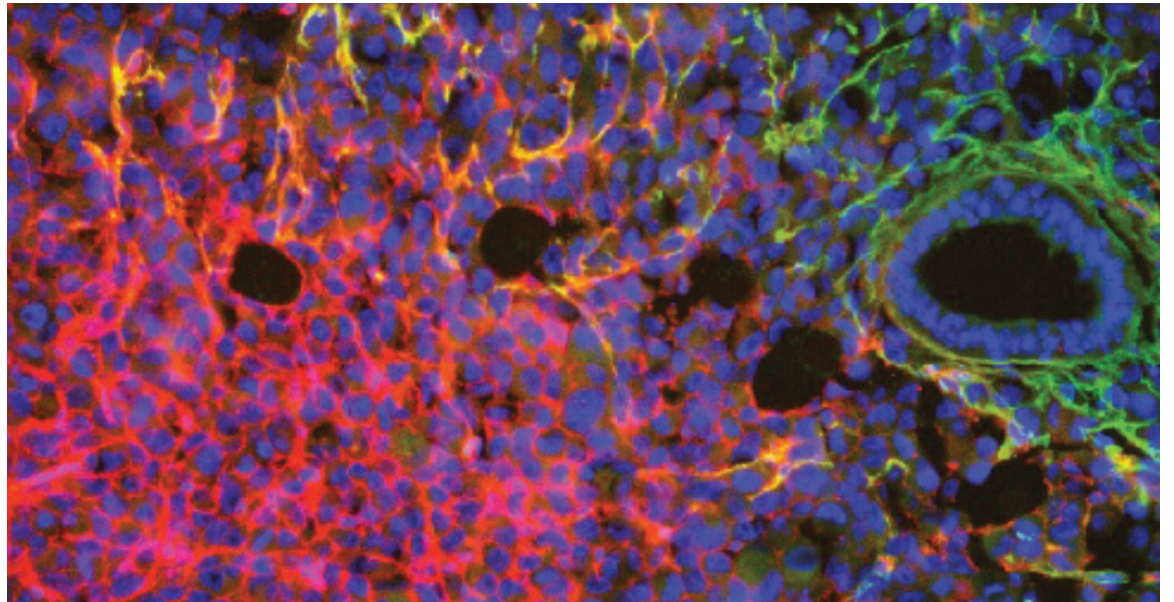


Breast cancer researcher makes strides in classification and mapping of breast cancer types

Team spirit helps student-athlete tackle cancer and raise awareness for other young patients 5



UNC LINEBERGER CENTER FOR TRIPLE NEGATIVE BREAST CANCER



A triple negative breast cancer cell line stained for endothelial cells and blood vessel content. Using immunofluorescence, the researchers showed that blood vessels in the cell line are leaky.

Donor gives \$25M to target triple negative breast cancer

An anonymous donor has made a \$25 million gift to UNC Lineberger to establish the UNC Lineberger Center for Triple Negative Breast Cancer and to support other key UNC Lineberger initiatives. This is the largest donation in UNC Lineberger's history, and it enables the cancer center to advance its groundbreaking research on diagnosing and treating a highly aggressive breast cancer that disproportionately affects Black, Latina and young women and historically has limited research funding.

The gift was made in gratitude for the care a family member received while being treated for cancer at UNC and to help expand and expedite the cutting-edge cancer research being conducted at UNC Lineberger. Specifically, the donor designated their investment to help women and men with all types of breast cancer, especially triple negative breast cancer because of its poor prognosis. In addition, the gift will support research directed

SEE DONOR, PAGE 4

director's message

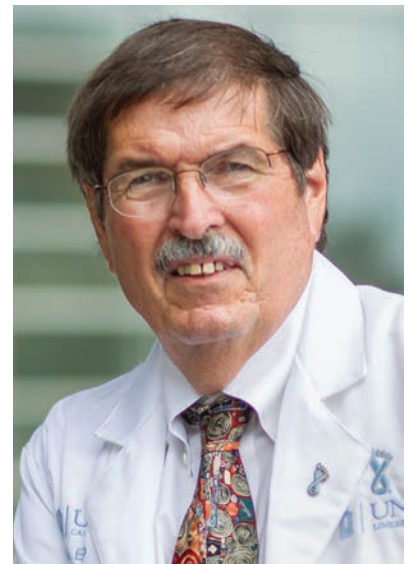
H. Shelton Earp, MD

As we approach the spring season, there is a sense of hope throughout our cancer center. We are working toward finding a way through the pandemic, while still achieving great things in our labs, managing patients in our clinics and looking to the future for new breakthroughs and advances. Everything we do is to improve the lives of patients and families, and two remarkable milestones show us

how our work continues to serve the population of North Carolina and beyond.

Helping patients is not something that rests on our shoulders alone; it is only achieved through supporters and friends like you. Recently, we received an anonymous \$25 million gift to establish the UNC Lineberger Center for Triple Negative

SEE DIRECTOR, PAGE 7

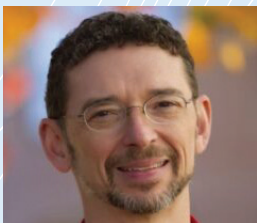


honors & awards

The American Urological Association presented Angela B. Smith, MD, MS, FACS, with the 2022 Gold Cystoscope Award, which is presented annually to a urologist distinguished by outstanding contributions to urology.



Clockwise from top left: Stephen Frye, PhD; Amy Gladfelter, PhD; David Margolis, MD; and Alexander Kabanov, PhD, DSc, have been elected 2021 fellows of the American Association for the Advancement of Science (AAAS), one of the most distinct honors in the scientific community.



The National Institute on Aging awarded Shakira Grant, MBBS, a two-year, \$200,000 grant to study the illness and treatment experiences of older adults with multiple myeloma and their care partners.

The Andrew McDonough B+ Foundation awarded Pengda Liu, PhD, a two-year, \$150,000 grant to support his research targeting ATR/SPOP signaling to overcome chemotherapy resistance in Ewing sarcoma.

The Mark Foundation awarded Yuliya Pylayeva-Gupta, PhD, a three-year, \$750,000 research grant to support her research focused on reprogramming B-cell fate and function in cancer.

upcoming events

april

2 The Blue Ribbon Run, Wilmington, N.C.

14 8th Annual She ROCKS Fundraiser Luncheon, Wilmington, N.C.

may

21 The Victory Ride to Cure Cancer, Raleigh, N.C.



RESOURCE CENTER MARKS MILESTONES

PFRC celebrates 30 years of service

For 30 years, the North Carolina Cancer Hospital's Mary Anne Long Patient and Family Resource Center (PFRC) has offered patients and their families expert help, solace and friendly faces. The PFRC is a key resource under the UNC Lineberger's Comprehensive Cancer Support Program, which helps guide patients through every step of the cancer journey, from diagnosis to survivorship, and everywhere in between.

The PFRC opened in 1991, when former UNC Lineberger Communications Director Dianne Shaw wanted to offer patients and their families a central location where they could find education, information and resources on cancer. Shaw teamed up with Anne Washburn, MPH, to create a space in the Gravely Building, the precursor to the N.C. Cancer Hospital, that, though small, was great in scope and idea. They soon added key players to their leadership, including Tina Shaban, BSN, RN, OCN, as director and Pam Baker, the first resource and navigation coordinator.

During the past two decades, Shaban and Baker have worked together to envision and oversee the transition from a program based in a small closet in the Gravely Building to a robust cancer support center that opened in the N.C. Cancer Hospital, the clinical home of UNC Lineberger, 2009.

"This was a real time of transition, but it was easy for us to put two and two together. Pam as a survivor, and me as a caregiver. We focused on those needs," Shaban said. "We simply listened to what the families were saying they needed, and we figured out how to make it happen."

When plans were announced to build a dedicated cancer hospital in the early 2000s, UNC Health leaders were open to creating an inviting space for



Left to right: UNC Lineberger Director Shelley Earp, MD, Tina Shaban, BSN, RN, OCN, Donald Rosenstein, MD, Rodney Long, Ian Buchanan, MD, and former UNC Lineberger Director Ned Sharpless, MD.

the PFRC that would be centrally located in the main lobby of the hospital and make it accessible and visible to all patients and caregivers as they arrived for care, something Donald Rosenstein, MD, CCSP director, said hospital leadership delivered.

"Leadership at UNC Lineberger and the North Carolina Cancer Hospital realized it was a priority to have the PFRC right there front and center so that it's next to the outpatient pharmacy and on the ground floor," he said. "I do think space reflects priorities in institutions. I think the most special part of the PFRC has always been the dedication of the people who worked there. They are really passionate about patient care."

The center has proved to be immensely helpful to patients and their families the past three decades. For the family of Mary Anne Long, they were so moved by the care and support the center provided her that they were inspired to give back after her death.

SEE PFRC, PAGE 7

Long-time resource center director leaves her mark

Tina Shaban, BSN, RN, OCN, recently retired from her longtime position as director of the North Carolina Cancer Hospital's Mary Anne Long Patient and Family Resource Center. And while retirement has her setting her sights on new endeavors, she hasn't forgotten the patients and families, friends and coworkers, and the people she's helped over the years.

Originally from Pennsylvania, Shaban said she grew up in a time where women had fewer career options, and most found jobs as teachers or nurses. Fortunately, nursing was a perfect fit for her, and she began her career as a pediatric oncology nurse.

"I knew I wanted to work in pediatrics, and my first assignment was pediatric oncology. I fell in love with the children and their adaptability," she said. "They were never angry at me for doing

tortuous things to them. They accepted they had to persevere and continued to live life through a really daunting time."

Shaban practiced at Memorial Sloan Kettering Cancer Center, Johns Hopkins All Children's Hospital and Texas Children's Hospital, before she found herself at UNC, working on refreshing her nursing skills, and she saw the open position at the PFRC. "It was a



Shaban

SEE SHABAN, PAGE 6

Nurse-researcher takes on new roles in leadership, education

For Ashley Leak Bryant, PhD, RN, OCN, FAAN, recently appointed UNC Lineberger's assistant director of Cancer Research Training Education Coordination (CRTEC), service in health care is in her blood. Bryant comes from a family of nursing assistants, and taking on this new administrative role is a fitting position as she has been a mentor to other nurses and clinical health professionals for more than a decade.

Bryant got her first taste of clinical care as a candy stripper in a Charlotte-area hospital when she was a teenager. And while she enjoyed her volunteer work, she didn't have plans for college after high school and wanted to open a Wendy's restaurant franchise in the future. Experiences in junior ROTC and a guidance counselor helped change her mind.

"It was those experiences where I said to myself 'ah, there's a brighter future ahead.'"

She enrolled at the University of North Carolina at Greensboro (UNCG) and applied to nursing school in her sophomore year. A strong family history of cancer brought her to oncology nursing at Atrium Wake Forest Baptist Health, where she cared for patients in the gynecology-oncology unit during her senior year of nursing school.

"I was getting women through this journey and helping them manage their symptoms and mobility. I really wanted to stay at Atrium Wake Forest Baptist Health as an oncology nurse, but preferred to work on the medical oncology unit," she said. Bryant spent three years on the medical oncology unit while obtaining her master's degree in nursing administration at UNCG. After graduating with her degree, Bryant taught at Duke University School of Nursing for eight years and worked on their inpatient oncology unit for two years. In 2007, she accepted a position with the inpatient oncology unit at the North Carolina Cancer Hospital, the clinical home of UNC Lineberger.

Bryant has worked at all three comprehensive cancer centers in North Carolina, but has served UNC patients the longest as an inpatient nurse for 15 years. Through her experience providing inpatient cancer care, she saw how older adults with cancer struggled to regain mobility after long periods spent in a hospital bed. Bryant's interest in addressing this health issue led her to pursue her doctoral degree at the UNC School of Nursing, followed by post doc work at the Gillings School of Global Public Health. "My nursing, clinical, and family experiences informed where I'm at today," she said. "I'm grounded in clinical experience where I hear the voice of the patient and their care partners." She continues to provide patient and family care at Transitions



UNC Lineberger's Ashley Leak Bryant.

LifeCare through its hospice home program.

In addition to her new role with CRTEC, she is a member of the executive team of the UNC Lineberger Equity Council, a group dedicated to making the cancer center a more diverse, equitable and inclusive institution. She is an associate professor and the Anne Belcher Interprofessional Faculty Scholar at the UNC School of Nursing, and together with **Deborah K. Mayer, PhD, RN, AOCN, FAAN**, Bryant co-founded the UNC Lineberger, Sylvia Lauterborn, and Warren Piver Oncology Nursing Fellowship.

She is nationally recognized for her research expertise in adult care, palliative and supportive care, acute myeloid leukemia (AML), interprofessional collaboration, and workforce development. She also has been actively engaged with building oncology nursing capacity and training with **Lixin Song, PhD, RN, FAAN**, and **Jen Hotchkiss, MSN, RN, OCN**, at UNC Project Malawi, a major site of UNC global oncology research.

Bryant first became interested in global oncology through a PhD student at the School of Nursing who received the James and Patricia Leak Fund for Nursing Research. Hearing about the student's life in Malawi, and partnering with **Satish Gopal, MD**, and **Irving Hoffman, PA, MPH**, and Malawian delegates that visited UNC in 2018, led her to become a key leader for the project along with Song.

"I have strong collaborators; they are just phenomenal," Bryant said. "We went to Malawi in December, 2018 and did a needs assessment, and that's where the collaborative partnership has formed. Since 2018, there have

been several collaborative projects, including educational and clinical practice guidelines on managing COVID, cancer related webinars, facilitation of nursing grand rounds, and oncology books gifted from the Oncology Nursing Society. Our goal is to continue to build the capacity of oncology nurses in Malawi, while working and collaborating with them to lead nursing research studies that will improve health outcomes and quality of life."

There are several research papers in press based on Bryant's work with Song in Malawi, but her research keeps her close to home, as well. She is working with physical and occupational therapists along with patients and their care partners to improve post-hospital and post-clinic experiences once patients return home.

"It takes a team effort. I believe when you have coordinated care adapted to patient needs, we can have favorable health outcomes, better function and mobility, fewer symptoms, higher quality of life," she said. "Connecting with people and building relationships is the key to happiness and longevity. And that's what the therapists do; I could not do this work without this interprofessional team."

Bryant said it's important to say that they are partnering with patients and their families to really reflect involvement in their own care. The goal is to prep patients ahead of time for a return home, so they're better able to manage their care at home and reduce the amount of time for inpatient services.

"We ensure they're engaged in their own care, and can self-manage their illness. When complications arise, they are better able to identify and address the complications," she said. "We ensure patients and families have support but can also self-manage some of these areas – physical function and symptoms, equipping patients and their families with knowledge and skills to really better manage at home, so they can reduce the time they're in the hospital or clinic."

Bryant also takes time to focus on her family, and she loves nature and enjoys time with her husband, Owen, and three children, Kayla, 21, Addison, 6, and Alec, 5. She also sometimes brings her younger two to her office with her on the weekend, so they can get a full understanding of her work as a nurse and educator.

"I want to set an example for my children. When they see my office, they think it is cool. 'Wow, Mommy's a nurse,' they said. 'I have to explain a nurse-scientist to them, so they know I'm an educator, as well. I lead research studies, work with patients and their families, and advocate that patient needs are being met. They get a chance to see it all.' 🧐

"It takes a team effort. I believe when you have coordinated care adapted to patient needs, we can have favorable health outcomes, better function and mobility, fewer symptoms, higher quality of life."

- Ashley Leak Bryant, PhD, RN, OCN, FAAN

Cousins team up to support oncologist, research

Susan Hall and Harold Malion don't measure their commitment to UNC Lineberger in dollars and cents, but rather by the potential for good that they believe research can do and what they see in the future for cancer patients at the North Carolina Cancer Hospital, the clinical home of UNC Lineberger.

Hall of St. Pauls, North Carolina, and Malion of Fairmont, North Carolina are cousins, born and raised in the state, and it's important to both that they support their fellow North Carolinians and the challenges imposed by a cancer diagnosis.

"I'm impressed by our cancer research in North Carolina, and it's just outstanding for our state and for the country. I like to support local," Hall, 72, said. "What I give is not but a little bit; it's not a great amount, but any little piece can be part of a big piece. That's what I do. I want to be part of helping someone else."

Malion, 76, a graduate of the UNC Eshelman School of Pharmacy, comes from a long line of health care workers, and as a pharmacist, he often saw first-hand the benefits of research on people's health. "Any little bit of help that you can give to enhance the research and keep it going is



Above: Clockwise from top left: Hunter Malion, Carolyn Malion, Harold Malion, Jordan Malion and Lylah Malion. Below: Susan Hall with her grandchildren.



important," he said. "The more you give, eventually something will benefit from what you give."

Malion gives to the School of Pharmacy

and to UNC Lineberger, and with Hall, now supports the Urologic Oncology Fund for Excellence and the work of UNC Lineberger's **Angela Smith, MD, MS**.

Hall said she wants to support Smith, and that her work has really impressed her. "I have known Dr. Smith for several years, and her research is brilliant," Hall said. "She's a tremendous asset, not only to us in North Carolina, but anywhere in the world. We're lucky to have doctors like her here."

"I've been impressed by all the different aspects of treatment in urological cancers," Malion said. "The research is exciting, and as long as they can do that research and continue to make improvements in cancer treatment, I think it's a worthwhile cause."

Malion said he knows that grant funding doesn't often fill all the needs researchers have, and he wants to help fill in those blanks. "There's never enough funding to go around," he said. "And cancer is one thing that's been around forever, and there are some cures, but there's still room for more improvements. [Smith] has achieved some tremendous goals, and I want to support that."

Hall and Malion said their families were

always there to lend a hand to someone in need while they were growing up, and they hope that their children and grandchildren see the example they've set and follow in those same footsteps.

"My parents have always said 'we need to respect everything and look out for situations.' Helping others was a normal thing that they did. I'm really proud of them for doing that ahead of their time. That's what they taught me to do," Hall said.

Malion said his college-age grandson might go into research, something that makes him proud. "Giving is a priority for us, and I hope my children will continue what we've set up, and I think they will. We're fortunate to be able to give something, that's what's important," he said.

Hall and Malion said they are lucky and fortunate to have such top-notch care and advanced research at UNC Lineberger, and they hope others follow their lead and consider supporting the cause.

"If you feel like you can give, and it's the right thing to give to, give what you can," Malion said. "Even if it's just a dollar, it counts. Give from your heart, and hope it can make a difference." ❧

donor *Continued from page 1*

toward developing more effective treatments for metastatic disease, improving pediatric cancer care, and eliminating racial disparities in cancer treatment outcomes.

Lisa A. Carey, MD, ScM, FASCO, will serve as the inaugural director of the UNC Lineberger Triple Negative Breast Cancer Center. Carey, the Richardson and Marilyn Jacobs Preyer Distinguished Professor in Breast Cancer and a research and a medical oncologist who specializes in treating breast cancer patients, said it is hard to overestimate the gift's potential impact on advancing triple negative breast cancer research and care.

"While research advances the past 30 years have led to new and more effective treatments for many types of breast cancer, this isn't the case with triple negative breast cancer," Carey said. "The good news is this gift will be a game changer. It provides the cancer center with the resources to expand and speed the pace of our research focused on generating insights that lead to better treatments and outcomes for women with triple negative breast cancer."

In addition to establishing this new research center, the money will create multiple professorships and accelerate three strategic research initiatives that build on existing UNC Line-

berger strengths, including chimeric antigen receptor T-cell (CAR-T) immunotherapy, expanding the genetic understanding and classification of cancer types to improve diagnostics and uncover new targets and modes of therapy, and creating greater knowledge of nutrition and metabolism and their impact on disease prevention and more holistic treatment options.

"UNC Lineberger has a world-leading record of advancing understanding of triple negative breast cancer and its therapy," said **H. Shelton Earp, MD**, UNC Lineberger director. "This remarkable gift will enable us to create an unmatched national hub of research excellence combining and enhancing our expertise in genomics, immunotherapy, and cancer nutrition towards more effective and less toxic therapy for advanced triple negative breast cancer, and with the knowledge gained and our world class community engagement team, better prevention, early detection, and timely therapy for all North Carolina's rural and urban populations." ❧



Carey

Researchers classify breast cancer into two groups

Researchers at UNC Lineberger have taken a major step forward in melding two key methods for studying breast cancer: one by genetic analysis and the second by looking at the architecture of cells, or their pathology. The investigators were able to link the two thanks to a decade-long effort made possible by The Cancer Genome Atlas (TCGA) Breast Cancer Data set. The scientists found much agreement between genetic and pathologic classifications but developed a novel way to use data from both systems to arrive at a classification method that divides breast cancers into 12 distinct biological groups.

"We've known for a long time that breast cancer is not one disease, and now through years of molecular research, added to decades of pathology knowledge, we have begun to integrate the two into one language," said **Charles Perou, PhD**, co-director of the UNC Lineberger Breast Cancer Research Program, the May Goldman Shaw Distinguished Professor of Molecular Oncology. "This should greatly aid future research efforts and enable faster translation of molecular findings into the pathology lab for clinical use."



Perou

TCGA's 10,000-plus tissue repository of 33 different types of cancer types allowed the investigators to explore the previously known, but rarer breast pathologies. However, obtaining a sufficient number of samples to adequately study rarer types and subtypes of cancer was a challenge. But the TCGA Breast Cancer team, led by Perou, was able to obtain enough samples for at least six rare breast cancer subtypes, each of which yielded interesting and unique molecular features. ❧

Student-athlete's cancer inspires her next phase

Emily Grund's life changed in the blink of an eye. In less than a day, she went from student-athlete to cancer patient, turning her world upside down. Grund, 21, is on the UNC-Chapel Hill diving team, and she was at practice in September when a teammate noticed a bruise on Grund in the locker room.

"It was a big bruise, and I didn't remember how I could have gotten it," Grund said. "I called the trainer, and they said if it got worse, got darker or started swelling to come back."

The next day the bruise was welted and had tripled in size. And stranger still, Grund noticed new bruises from ordinary activities — sitting in a chair, carrying her backpack. She was brushing her teeth when the dizziness struck.

"I felt like I was going to faint," she said. "I couldn't stand up or sit down. I knew something was wrong."

Grund's teammates took her to the emergency room at UNC Health, and the diagnosis came back as quickly as her sudden decline. She had acute promyelocytic leukemia, a rare form of cancer.

"I asked my doctor how long I've had it, and they said it was only a month. Symptoms are very everyday things, feeling sick all the time, lethargy, fatigue, but more so than usual," she said. "Not until I was bruising easily and bleeding a lot that I thought 'something's off.' Just because my whole life, I get sick all the time. I've always been like that, and I didn't think anything of it."

Grund's parents made the journey from the Dallas-Fort Worth area to Chapel Hill to support their daughter, and her diving teammates were on hand to keep her spirits up. Grund has seen a number of doctors so far, and her care team rotates. She's seen UNC Lineberger's Hendrik van Deventer, MD, Christopher Dittus, MD, and James Coghill, MD.

Grund had never heard of her cancer before, and she is now focused on doing something about that. She is sharing her story with other student groups at Carolina to help spread the word to others and support UNC Lineberger's AYA Cancer program, which focuses on the physical, mental and emotional needs of young adults ages 13-39 with cancer.

"Once I started talking with them, I knew I wanted to help spread awareness," she said. "I wasn't entirely comfortable asking my doctors questions about what comes next for me. The AYA group provided me with an outlet to discuss the issues, and I felt like I could open up in discussions with the group. It's just another example of a support system in place here at UNC. I am looking forward to continuing with AYA and sharing my story with other student groups at Carolina to help spread awareness for what they offer young people."

As a young athlete, Grund thinks about her life after cancer, when she will be able to dive again, and how chemotherapy will affect her body. She is able to ask the AYA team questions she's not entirely comfortable asking her doctors.

"I'm 21, so am I able to have a beer with dinner? They provided a comforting environment to ask questions," she said.



Pictured: Emily Grund. Below: Teammates and supporters of UNC Swimming and Diving held signs to lift Grund's spirits during her cancer treatments.



What comes next is always on Grund's mind. She has been diving since she was five, something that's been a big part of her life and has taken her all over the world. It also brought her to UNC, and Grund said she knew it was the perfect place for her as soon as she visited the campus.

"I fell in love with everything about the school, not just the team, but the campus, and the way people treated people, I loved it all," she said.

And her team is a great example of the connection she felt when she first visited Chapel Hill. Grund said they were shocked by her diagnosis, but she could count on their love and support during her time in the hospital, bringing dinner and good spirits. The team stood outside the hospital windows with signs of support for Grund, and they have also gotten behind her efforts to raise awareness about AYA cancer through social media.

"I shared my story via Instagram and have been overwhelmed with the love and support I received from

To help support Emily's efforts to raise funds and awareness for the AYA Cancer Program, please visit unchf.org/splash

family, friends, and especially the diving community," she said. "USA Diving shared my story and responded with video messages from athletes, club teams, and university teams sending prayers and well wishes. What resulted was the hashtag for the season #WeDiveForEmily. It is the most incredible thing I have could have ever imagined. I've received hundreds of cards and letters from athletes, some of whom I have never met. Diving is not only a community of athletes, but extended family who truly rise up when one of their own needs encouragement."

Grund said she could see herself improving, both mentally and physically, as she went through treatment. She said she's had plenty of hard days, but she can see better days in the future.

"I'm 21 years old, and I had cancer, and it's a hard pill to swallow, but once you come to terms with it, it gets easier," she said. "I would think 'my life is ruined,' but I know I will move past this and live my life and be fine."

Grund is currently cancer free and is being monitored as an outpatient at the N.C. Cancer Hospital, but she hasn't forgotten her journey and all the people who got her there. 🧡

— research briefs —

OVARIAN AND ENDOMETRIAL TUMORS MAPPED TO THE LEVEL OF A SINGLE CELL

For the first time, researchers have determined, cell-by-cell, the genetic and epigenetic state of ovarian and endometrial tumors. UNC Lineberger researchers said this study is an important step forward in developing a better understanding of gynecologic cancers, as every tumor is a collection of different cells growing uncontrollably within its mass. Knowing how cell-to-cell variations affect the biological workings of the tumor is of utmost importance and can lead to new targets for therapeutic interventions.

“The standard of care for many gynecologic cancers is a combination of surgery, chemotherapy and radiation. Despite these aggressive treatments, the majority of women with ovarian cancer experience a recurrence of their disease, highlighting the need to better



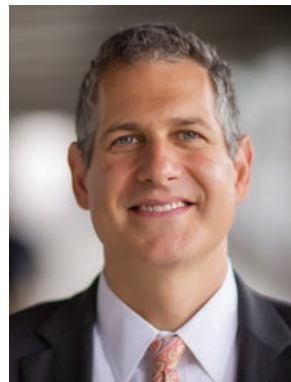
Franco

understand the etiology of the disease in order to develop better targeted therapies,” said **Hector L. Franco, PhD**, corresponding author of this article. “To that end, with the improved resolution of the new single-cell sequencing technologies, we can now annotate specific genetic features of tumor cells that had been previously hidden from traditional sequencing technologies.”

REPORTING SYMPTOMS IMPROVES CARE FOR PATIENTS WITH ADVANCED CANCER

People with advanced cancers who reported their symptoms weekly using a digital tool received more timely, and potentially life-saving treatment, compared to those who were evaluated less frequently via regular in-person clinical visits, according to findings from a study. The PROTECT (Patient Reported Outcomes To Enhance Cancer Treatment) trial was led by UNC Lineberger researchers.

To help improve clinician awareness and responsiveness to patients’ symptoms, the study investigators used a digital system, available via the internet or through an automated phone system, to easily and quickly facilitate collection of patient-reported outcomes (PRO) and convey them in real time to cancer care team members.



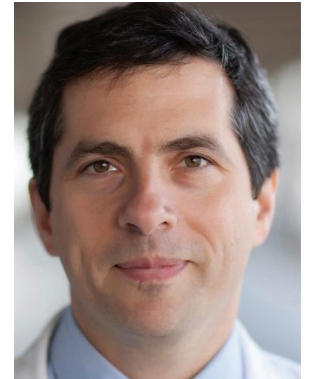
Basch

“Many patients are living longer with cancer and are undergoing treatment for extended periods,” said **Ethan Basch, MD, MSc**, director of the Cancer Outcomes Research Program at UNC Lineberger, and the study’s lead author. “We designed a strategy to help care teams better connect with patients when they’re at home between visits, with an aim to catch symptoms early before they worsen and cause complications, unnecessary suffering, or avoidable hospitalizations.”

DRUG COMBINATION IS EFFECTIVE IN PEDIATRIC BRAIN TUMORS

UNC Lineberger researchers demonstrated that a novel combination of two drugs that act as targeted inhibitors, delivered in a nanoparticle formulation, extend the survival of mice with medulloblastoma. The research team believes this laboratory success could be translated into a less toxic treatment for medulloblastoma, the most common malignant pediatric brain tumor. Advances such as this are crucial because current treatments, while effective for many patients, often result in potentially disabling brain injury.

“We showed that palbociclib, an FDA-approved drug for breast cancer, may be effective for medulloblastoma, but as a single agent it is not curative because it does not stay in the brain for long enough, and because tumors can become resistant to it,” said **Timothy R. Gershon, MD, PhD**.



Gershon

“In our mouse studies, we addressed the limited brain penetration by developing a nanoparticle formulation that delivers the therapeutics into the brain more effectively. We then we studied why resistance developed over the long-term and ultimately, we found a mechanism of resistance that we could target by adding another drug, sapanisertib.”

shaban *Continued from page 2*

unique opportunity. They didn’t have a nurse, and it seemed like a really perfect match for me.”

Shaban’s connection to pediatric oncology and experience with her father’s cancer gave her a good perspective on what patients and families needed on their cancer journey.

“My dad had been a patient on a clinical trial. I knew the rigors a family goes through when a member is going to treatment,” she said. “I took my nursing skills and personal experience to try and bring some things that would help other families.”

During her tenure at the PFRC, Shaban developed a broad range of programs, including body image consultation, integrative medicine, and caregiver support. She originated the Patient Assistance Fund to provide relief for patients experiencing financial challenges and was instrumental in bringing social workers and oncology dietitians to the care teams. For more than 20 years, through moves and renovations, and even a pandemic, Shaban remained committed to helping families, something she had

“If the thoughts and intentions are patient and family focused, it will have a positive impact, and advocating for that can make it a reality.”
- Tina Shaban, BSN, RN, OCN

in common with many in the health care and wider communities.

“Without volunteers and community partners we couldn’t have done any of this. We were a very bare bones team,” she said. “The most beautiful part of the story is just how many people from different walks of life joined together to make this happen. It’s pretty incredible.”

Shaban reflected on the ups and downs she experienced during her tenure, and said she learned trying to make things better is always a good idea. “If the thoughts and intentions are patient and family focused, it will have a positive impact, and advocating for that can make it a reality.”

She officially retired in December 2021, and she has been surprised by the effort it takes to settle into her retirement. “It’s hard for me to lie on the couch and watch Hallmark movies,” she joked. “I look forward to being

able to spend time with my own family and friends. My heart is on the lookout for the next big adventure.”

For Shaban, the PFRC will always have a place in her heart and memories, and she knows that there will always be someone in need that she can help. She hasn’t set her sights on any one cause yet, but said she’ll know when it’s time to step up again and lend her skills and talents to helping others.

“The Patient and Family Resource Center is truly an incredible place. Our team’s work and support is a calling, and we understand the diverse needs that our families experience and we creatively and purposefully seek avenues of support. We have never been afraid to care openly, and with that comes human connection,” she said. “It was an honor and privilege to serve in a position for almost 20 years that challenged me daily to bring nothing less than my very best.”

pfrc *Continued from page 2*

Rodney Long, CEO of Long Beverage, together with his daughters, wanted to do something for patients after they lost their wife and mother, Mary Anne, to cancer. The family wanted Mary Anne's memory to live on and help other cancer patients during their cancer journeys. Their efforts led to the founding of the Brighter Image Boutique, which offers wigs for cancer patients.

"That's one of the reasons I decided to try to do this and get involved," Long said. "[Mary Anne] always wanted to help people. She wanted to help in whatever small way she could."

The wig program is one of the most successful aspects of the PFRC. In its infancy, Shaban said, patients donated their wigs, and they'd be cleaned and given to another patient. For a lot of patients, though, appointments are more than just cosmetic.

"When you're experiencing a physical side effect like hair loss, it is a reality check. We offer a lot of emotional support at those appointments," Shaban said. "Donors helped us provide that service at no charge to our families."

In 2017, the PFRC was renamed the Mary Anne Long Patient and Family Resource Center to reflect the ongoing efforts of the Long family's commitment to help the center provide support to patients on a larger scale and with more resources.

Philanthropy has been a key component in advancing the PFRC, helping Shaban and her team realize their vision for patients and families.

"It became possible for us to envision our dreams because others were saying this was important," Shaban said. "The combo of an idea and a team who helped us financially was really critical. They understood that care was not just administering a medical component of cancer care. You looked at the whole patient and the family."

"Most, but not all, of the services provided by the



Left to right: Sharon Bigelow, Pam Baker, Tina Shaban, and Marianne Baskaron.

PFRC and the CCSP are free to patients. So the boutique and the educational programs and support groups and navigation and financial assistance and legal services are free," Rosenstein said. "We are critically dependent on philanthropy."

The COVID-19 pandemic has changed things at the PFRC, with the faculty and staff adapting to a more virtual care model, while still successfully providing support for patients and their families. The PFRC also launched a remarkable, new patient navigation program, led by Sharon M. Bigelow, RN, MSN, ANP, OCN, and Libby Hart, RN, BSN, CHPN, both former PFRC team members and nurse navigators.

"The PFRC adds a warm and helpful human touch to the cancer treatment experience and that's always been the case," Rosenstein said. "It makes the cancer hospital stand out as a very special place."

The demands for PFRC services are higher than ever, and changes made during the pandemic have proven so successful, that they will continue in a post-COVID landscape. And the resource center continues to adapt and change to meet the needs of an evolving patient population, while still remaining true to its mission.

"The PFRC is really a model program for cancer support," Rosenstein said. "I have always thought of the

PFRC as the window to the CCSP. It's the physical space, and people may wander in. When they do, we want to increasingly personalize the supportive care services that people are connected with."

Rosenstein hopes to see those connections increase in the future, and he said a top priority

is to expand the center's capacity to reach patients who otherwise may have trouble finding the PFRC or accessing some of its services. He also sees cancer care models changing down the line, to better incorporate the benefits of CCSP and the PFRC.

"I want to continue to more broadly serve the needs of the patients in North Carolina," he said. "I want our work to continue to be data driven and integrated with patients' cancer care. I don't want the resource center to just be where you go for comfort. I want to be in close communication with other oncology services and providers. This is part of comprehensive care."

Before the pandemic, renovation plans were on tap to help open up the space, making it more inviting and welcoming and helping patients know that this was a space just for them, without an appointment or a schedule. Shaban has recently retired from her long-time role with the PFRC and said she envisions a sort of living room, complete with comfortable seating and a fireplace to really help set the scene for patients and invite them into a space that feels like home.

"The PFRC started out as a library-type environment," Shaban said. "It's changed a lot over the years. PFRC is the only physical space where any patient, family members and any community member can come in and immediately receive service. It's a big deal. There's a beautiful benefit to the space." 🦋



Rosenstein

"Most, but not all, of the services provided by the PFRC and the CCSP are free to patients. So the boutique and the educational programs and support groups and navigation and financial assistance and legal services are free. We are critically dependent on philanthropists."

- Comprehensive Cancer Support Program Director Donald Rosenstein, MD

director *Continued from page 1*

Breast Cancer. We are thrilled by this generosity, and we know UNC Lineberger is the right place for such a significant investment. Led by Lisa Carey, MD, FASCO, our experts in genomics, Charles Perou; immunotherapy, Barbara Savoldo and Jon Serody; and cancer nutrition, Steve Hursting; will position us to continue advancing our understanding of triple negative breast cancer, prevention, care and treatment. What's truly exciting are the numbers of breast cancer patients that will benefit from this amazing gift, especially Black,

Latina and young women, who are disproportionately affected by this disease.

We are also marking the 30th anniversary of our Patient and Family Resource Center (PFRC) now at the North Carolina Cancer Hospital, the clinical home of UNC Lineberger. This special place provides education, resources and care for patients and their families from diagnosis to survivorship. It began in one room in the Gravely clinic 30 years ago. Its growth, orchestrated by the recently retired Tina Shaban, is a key component of our compassionate care for patients and families.

In addition to these wonderful stories, you'll also learn about two donors supporting women in oncology, a young woman with a great team of supporters behind her, and our own Ashley Leak Bryant, whose work and research reflects a desire to give back and be a mentor to others.

I'm looking forward to a spring season filled with great opportunities, and we have supporters like you to thank for that. We are grateful that you see UNC Lineberger as a partner for new discoveries and cancer advancements, and our patients, their families and North Carolinians will reap the rewards. Thank you! 🦋

events



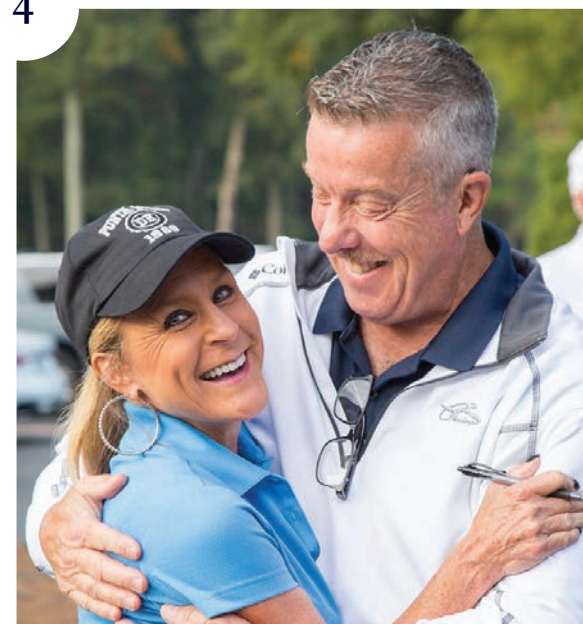
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THE FARM PARTY

1-2: The Teer Farm held its annual Farm Party on Oct. 30, 2021, marking the eighth year for the event. The event raises funds and awareness for UNC Lineberger, and has brought in more than \$52,000 for the cancer center. Coordinators started the event 12 years ago, when their friend was diagnosed with chronic myeloid leukemia.

CHAPEL RIDGE GOLF TOURNAMENT

3: The Chapel Ridge Champions raised more than \$30,000 at its fall tournament to support UNC Lineberger. The champions celebrated their successes together after the event. The group supports all ages and various cancers with their campaigns to raise funds for cancer research, assist those with cancer and provide support for caregivers.

CLAY ON THE GREEN FOUNDATION

4-5: The Clay on the Green Foundation presented UNC Lineberger's Ian Davis, MD, with a check to support his research into Ewing sarcoma, a cancer that primarily affects young people. The foundation held the Clay on the Green golf tournament in October, 2021, to raise funds for UNC Lineberger and to honor the life of Clay Price.