From the director’s desk
New initiative is accelerating the UF Health Cancer Center’s efforts

The center for “win-win”
Grant supports collaboration to address cancer disparities in Florida

Growing strong
The UF Health Cancer Center reaches new heights

Full circle
A former cancer patient’s role reversal

In the patient’s corner
UF orthopaedic surgeon’s new role cuts to the core of cancer care

Believe in a Cure is the newsletter for the UF Health Cancer Center, home to cancer care and research for the Southeast’s most comprehensive academic health center. In each issue, we will bring you stories about the progress and patient-centered care occurring at the center, as well as the partners who help make it happen.

Are you a patient?
For more information about care and services offered at the UF Health Cancer Center, call 352.273.8689.

To support the work of the UF Health Cancer Center, call the UF Health Cancer Center Development Office at 352.273.8689, write to P.O. Box 103633, Gainesville, FL 32610, or visit “Make a Gift” at www.cancer.ufl.edu.

To receive or opt out of receiving this newsletter, email Lindy Brounley at brounley@ufl.edu.
For years now, our researchers have fervently pursued discoveries that could lead to better treatments for cancer. Our goals have never changed. We want to save lives and cure cancer.

Last year, Gov. Rick Scott signed into law a new program that will help us make this happen. The state will supply $60 million per year to three cancer centers in Florida — including our own — to accelerate our efforts to develop new cancer drugs and therapies. A goal of this initiative will be to achieve designation from the National Cancer Institute. Only 68 institutions across the country hold this designation.

This initiative is further bolstered by UF’s own plans to recruit nationally recognized researchers as part of its efforts to become one of the country’s top public universities.

For us, these opportunities mean a chance to propel our already stellar research program to new heights, launching a domino effect of innovative discoveries, better treatment, lives saved and, ultimately, cures.

As a center, this increased funding and focus on research will boost our efforts to recruit nationally recognized researchers who will bring established research programs to UF. Specifically, we are recruiting scientists whose work specializes in cancer therapeutics, basic cancer biology, cancer epidemiology and population science. Already we have recruited several new researchers whose nationally funded, innovative work continues within our center.

Our students benefit. They will have the chance to learn from even more brilliant minds and gain experience working on research teams that are tackling the scientific questions crucial to improving cancer care.

Our researchers benefit. Building our research program and recruiting new scientists means more opportunities for collaboration — a convergence of ideas that can lead to groundbreaking discoveries.

And most importantly, patients across Florida will benefit. Cancer is the second leading cause of death in the state. Better treatments are needed. Cures are needed.

Our goal is to find them.

Best regards,

Paul Okunieff, M.D.
Director, UF Health Cancer Center

Paul Okunieff, M.D., is the Marshall E. Rinker Sr. Foundation and David B. and Leighan R. Rinker chair and serves as director of the UF Health Cancer Center and chair of the College of Medicine department of radiation oncology.
New initiative supports minority cancer researchers within the state

To Folakemi Odedina, Ph.D., the associate director of the Florida Minority Cancer Research and Training Center, the center is a win-win, win-win situation.

The center — the first and only of its kind in Florida — is funded by a $1.3 million NCI P20 grant from the National Cancer Institute and reflects a partnership between the NCI and the University of Florida Health Cancer Center, which also contributed $320,000 in funding. The center, administered by UF and Florida Agricultural and Mechanical University, or FAMU, will support minority students and investigators pursuing careers in cancer research by providing research mentoring and training opportunities.

“This center will end up with a really large pool of investigators who are working together to address cancer disparities in Florida,” said Odedina, who is the principal investigator of the grant. “It’s a win-win for UF and FAMU, which makes the center a win-win for the state of Florida.”

The center aims to address cancer health care disparities for minority communities in Florida by increasing the number of minority investigators who are focused on cancer research, according to Odedina.

Odedina points to estimates that Florida will experience the third-highest number of new cancer cases and the second-highest number of cancer deaths nationwide this year. Statistics show that Florida’s black communities carry a disproportionate share of this cancer burden, and black people experience the highest rate for cancer incidence, shorter survival times and greater likelihood of death in comparison with other racial and ethnic populations nationwide.

Conversely, a recent report on the U.S. biomedical research workforce found that in 2006, though black people represented 14 percent of the U.S. population, they earned only 2.5 percent of the science, math, engineering and technology doctoral degrees awarded to non-international students.

Odedina said the NCI P20 award is intended to help remedy these disparities. It is also the only NCI P20 partnership currently in Florida. Cancer centers in only seven other states have received P20 awards, which are granted as part of the NCI’s initiative to address cancer health disparities through collaboration in research.

“It’s very important to have minority researchers because diseases are not just restricted to Caucasian people,” said Yehia Daaka, Ph.D., the Haskell Hess professor and chair of the UF department of anatomy and cell biology and co-principal investigator of the grant. “In fact, it’s just the opposite. In cancer, the incidence and progression of cancer, and in particular our focus on prostate cancer, is much more severe in minority populations.”

For now, the center is focusing on three initiatives. The first will pair FAMU undergraduate students with senior cancer researchers at the UF Health Cancer Center for training that provides intensive, hands-on experience developing research projects with the expectation of students making
poster presentations and co-authoring papers submitted to peer-reviewed scientific journals. The center will also award one-year, post-baccalaureate grants to minority students interested in applying to medical school or to a biomedical graduate program to give them additional time to prepare their applications and hone their research skills.

Third, to help develop the careers of minority investigators, the center will provide pilot project grants to fund cancer-related health disparity research collaborations between UF Health Cancer Center senior faculty and FAMU junior faculty. The first of these has been awarded to Selina Darling-Reed, Ph.D., a FAMU assistant professor of environmental and occupational health, to study the regulation of prostate cancer growth and metastasis, a cancer that is particularly deadly in black men. Darling-Reed’s UF mentor and the study’s principal investigator is Daaka. The goal of the pilot awards is to generate preliminary data leading to the FAMU researchers’ successful applications for National Institutes of Health and other funding.

“This initiative is an ideal opportunity to introduce, early in their careers, both minority students and junior faculty to a spectrum of research opportunities encompassing basic science, clinical medicine, community engagement, cancer advocacy and population sciences,” said P20 study principal investigator Renee Reams, Ph.D., a professor of biochemistry in the FAMU College of Pharmacy and Pharmaceutical Sciences. —Morgan Sherburne

UF mentor and FAMU mentee each bring something new to the table

For three months during the summer, Selina Darling-Reed, Ph.D., an assistant professor in the FAMU College of Pharmacy and Pharmaceutical Sciences, will come to the University of Florida for the first health disparity research collaboration with Yehia Daaka, Ph.D., the UF co-principal investigator of the National Cancer Institute P20 grant. Darling-Reed will have the opportunity to work with research techniques and equipment not yet available at FAMU, and Daaka will mentor her in health disparity research.

“African Americans are less likely to develop breast cancer, but more likely to die from it,” Darling-Reed said. “When you talk about prostate cancer, African American men are more likely to develop and die from it. Because of that, it’s imperative that we study the disease using model African American cancer cell lines.”

Darling-Reed said the origin of cancer cell lines impacts the way she studies them. An alumna of UF, Darling-Reed studied microbiology and cell science at the Institute of Food and Agricultural Sciences and earned her master’s degree in food science in 1993. She earned her Ph.D. in pharmacology and toxicology at FAMU.

At UF, Darling-Reed will study prostate cancer in African American men.

“We will be studying newly created African American prostate cancer cell lines, looking at the mechanism Dr. Daaka works on in his lab to see if they also apply to the African American cell lines,” Darling-Reed said.

Some of the techniques that will be available to Darling-Reed include live cell imaging, which allows researchers to study cells in real time, and identifying genes and proteins using a technique called high-throughput sequencing. This technique allows researchers to rapidly identify many genes and proteins simultaneously.

Daaka, who specializes in cell biology and pharmacology, said he and Darling-Reed will meet weekly to design and perform experiments and to discuss Darling-Reed’s progress.

“She will also have access to interact with members of my own lab and adjacent labs as well as postdoctoral researchers, graduate students and undergraduate students,” Daaka said. “My goal is that she sees how contemporary biomedical research is performed at an active university in a health science center setting.”

“This center will end up with a really large pool of investigators who are working together to address cancer disparities in Florida.” —Folakemi Odedina, Ph.D.

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ith a flourish of a pen, last summer Gov. Rick Scott signed into law the Florida Consortium of National Cancer Institute Centers Program.

The program aims to catapult three state-supported academic cancer centers — the UF Health Cancer Center in Gainesville, the University of Miami Sylvester Comprehensive Cancer Center in Miami and the H. Lee Moffitt Cancer Center in Tampa — on to the international stage of cancer research and care. To achieve this, the state will invest $60 million annually for five years into its academic cancer centers to rapidly accelerate the advancement of new cancer drugs and therapies for Florida’s residents. For the UF Health Cancer Center, this means an infusion of $10 to $12 million in new state support each of the next five years, with potential for continued funding after achieving National Cancer Institute (NCI) cancer center designation.

This support from Scott and the Florida Legislature couldn’t have come at a better time. Cancer is second only to cardiovascular disease as the leading cause of death in Florida, which this year is expected to experience the third-highest number of new cancer cases in the nation and the second-highest number of cancer deaths.

“This funding from the Governor and State gives Florida the chance to earn its rightful place as a provider of innovative cancer care and scientific discovery.” — David S. Guzick, M.D., Ph.D.

“Nearly 20 percent of Florida’s population is aged 65 years or older, and unfortunately older citizens are on average more likely to be diagnosed with cancer,” said David S. Guzick, M.D., Ph.D., senior vice president for health affairs at UF and president of UF Health. “Yet, when you compare Florida to the three states that have traditionally been ahead of us in population size — California, Texas and New York, though we have just surpassed New York — it becomes apparent that Florida is underserved in terms of the number of cancer centers it has to provide state-of-the-art cancer care to Florida’s residents.”

Guzick views the state support as a catalyst for UF Health to achieve cancer preeminence that will help address Florida’s cancer burden through accelerated recruitment of top-notch, interdisciplinary cancer researchers and clinician-scientists. He said the state support also would broaden research funding opportunities for existing faculty members to leverage their
productivity in conducting leading-edge cancer research and in opening more investigator-initiated, interventional clinical trials to test new cancer treatments and therapies.

“This funding from the Governor and State Legislature gives Florida the chance to earn its rightful place as a provider of innovative cancer care and scientific discovery,” Guzick said. “And this will naturally lead to more effective cancer treatments that help not only Floridians but everybody who has cancer in the country and the world.”

The state’s support of its academic cancer centers is a smaller-scale model of the 1971 National Cancer Act, which declared war on cancer and established the National Cancer Program. Over the years, Congress has allocated billions of dollars to the program to establish a network of NCI-designated cancer centers across the country and to fund the advanced cancer research discoveries made in those centers’ laboratories. The investment has paid off, resulting in unprecedented innovations in the development of new cancer therapies and technologies that have saved lives and helped position the U.S. as the global leader in biomedical research and new drug development.

“UF has a robust cancer research program that is focused on translational research aimed at advancing scientific discoveries into clinical trials and ultimately

In April, the UF Health Cancer Center was recognized by Gov. Rick Scott and the Florida Department of Health as a state-designated Cancer Center of Excellence. The designation recognizes hospitals, treatment centers and other providers that demonstrate excellence in patient-centered coordinated care for persons undergoing cancer treatment and therapy in Florida.

The UF Health Cancer Center, which includes UF Health Shands Cancer Hospital, the UF Health Proton Therapy Institute and UF Health Cancer Center at Orlando Health, was one of four institutions to receive the designation. Florida’s State Surgeon General and Secretary of Health John Armstrong, M.D., (pictured, center) visited UF Health Shands Cancer Hospital to present the award.

The goal of the Cancer Center of Excellence award program, according to the Department of Health website, is to encourage excellence in cancer care in Florida, attract and retain the best cancer care professionals to the state and help Florida organizations be recognized nationally as a preferred destination for quality cancer care. The designation is based on measured success in delivering the quality cancer care to patients and family members.
to improved patient care,” said Paul Okunieff, M.D., director of the UF Health Cancer Center, a professor and chair of the UF College of Medicine department of radiation oncology and the Marshall E. Rinker Sr. Foundation and David B. and Leighan R. Rinker Chair. “However, we don’t have the legacy of being an NCI-designated institution, so we have experienced some disadvantages in growing our research excellence.

“This state funding helps us answer questions like ‘what is the future of personalized cancer care and molecular medicine, what do the most effective therapies look like and who are the best minds on the planet that we can recruit to UF to focus the force of their intellects and creativity on these questions,'” Okunieff said.

Okunieff notes that faculty recruitment supported by the state’s investment is focused on hiring mid- to senior-level scientists, research superstars who will bring mature cancer research portfolios to newly created faculty positions at UF Health in the areas of cancer therapeutics, basic cancer biology, cancer epidemiology and population science.

“The ultimate question we should ask ourselves at the end of the day should be, ‘did our research make a difference in someone’s life?’” —Robert A. Hromas, M.D., FACP

Once in place, these senior-level recruits will hire junior researchers and research fellows, postdoctoral and doctoral students to staff their labs, further enriching the scientific milieu of cancer research at UF Health. Their work will be supported with investments in research space and core facilities, enhancing investigators’ access to the world’s most advanced research technologies, and in seed grants to jump-start the research of junior investigators and spur investigator-initiated clinical research studies at UF Health in Gainesville and at UF Health Cancer Center at Orlando Health.

“In my mind, there are really two national benchmarks of a great cancer center,” said Robert A. Hromas, M.D., FACP, a professor and chair of the
College of Medicine department of medicine. “One is original basic science discoveries in the laboratory that push the cancer envelope and lead to the development of the newest, most advanced drugs and devices, and the other is investigator-initiated clinical trials, which introduce those new discoveries into patient cancer care to make patients’ lives better and contribute to the economic development of the state.

“The ultimate question we should ask ourselves at the end of the day should be, ‘did our research make a difference in someone’s life? Are there patients who are alive today who would not have been alive before we did research in this area?’” Hromas said. “Cancer preeminence will help us in always rising to the question.”

Duane Mitchell, M.D., Ph.D., joined UF in 2013 to seek a simple solution to a complicated disease: using patients’ own immune systems to battle glioblastoma, the most common form of brain cancer.

Mitchell, the director of the UF Brain Tumor Immunotherapy Program, is one of the dozens of distinguished faculty members UF has hired from around the world as part of the university’s “Preeminence Plan” to rise among the nation’s top public universities.

He and his team are studying how to mobilize the body’s immune system to combat brain tumors.

“Our research focus has been on using the immune system to recognize and attack invasive brain cancer cells both in pediatric and adult brain tumors,” Mitchell said.

The current standard of care for people with malignant brain tumors fails to kill all of the invasive cancer cells in a person’s tumor because those cells are embedded within the normal brain tissue, Mitchell said. Using the immune system to locate these cells may prove more effective in ridding the body of these cancer cells — and killing them in a way that doesn’t harm surrounding tissue.

“That specificity has been one of the main attractions of using the immune system, especially in an area with critical normal tissues such as the brain,” said Mitchell, also the co-director of the Preston A. Wells, Jr. Center for Brain Tumor Therapy at UF. “We want to do as little harm as possible.”

Currently, Mitchell and his team are exploring two ways of using the immune system to attack brain cancer. First, the team uses cancer vaccines that boost the patients’ immune system to recognize and eradicate specific cancer cells.

Second, the researchers are using what’s called “adoptive cellular therapy.” In this therapy, instead of trying to boost the patients’ immune system, the researchers harvest immune cells, teach them to recognize the patient’s own cancer cells and then cultivate these immune cells in large numbers outside the patients’ bodies. Then, they transfer these cells back into the patient so the immune cells can zero in on brain tumors.

While Mitchell and his team focus on brain tumors, they hope the technology they’re developing can apply not only to other kinds of cancers, but also to different diseases such as chronic infections.

“We like to think of these as a platform technology approach. If these approaches are effective, we can potentially make them more broadly applicable and they can ultimately be translated into therapies for other cancers and diseases,” Mitchell said. “That way, these approaches are more attractive for commercial development and there’s even more opportunity for larger numbers of patients to benefit.”

Mitchell came to UF from Duke University, where he was the associate director of the Duke Brain Tumor Immunotherapy Program. —Morgan Sherburne
Former patient gives back

Riqui Villegas has come full circle.

It started with a cancer diagnosis two weeks into his freshman year of college. When Villegas, a seasoned football and lacrosse player, began feeling a pain in his collarbone, both he and his parents assumed it was nothing serious — a fractured collarbone, or some other sports-related injury. But two weeks after Villegas left for college, the pain came back.

This time, it was excruciating.

Villegas visited the infirmary where a nurse examined him and made, as Villegas describes it, “the face you make when you know something’s wrong.” After a few scans, a doctor told Villegas it might be a good idea if his family was here before he ran any further tests.

His parents made the drive from Miami to Gainesville in record time, and the diagnosis was made: lymphoma.

After four months of chemotherapy, Villegas was done with cancer — but not with UF Health. While one of his parents was always with Villegas through most of his treatment, his mom noticed this was not the norm. One of Villegas’ doctors explained that it was difficult for parents to constantly drive to Gainesville and pay for a hotel.

The Riqui Villegas’ Chomp Cancer Fund aims to fix that.

Villegas raised more than $25,000 for Chomp Cancer through his fraternity’s annual philanthropy event. Although Pi Kappa Alpha’s “Pike Halftime” philanthropy event usually donates its funds to the Florida Diabetes Camp, the dance contest — featuring 16 different teams of sorority girls — decided to do something different this year.

“We thought it would be a pretty neat idea to go ahead and benefit both the camp and the fund that had just started,” Villegas said.

Villegas, now 20, also volunteers with Streetlight, a palliative care program at UF Health that he first became familiar with during his frequent stays in the hospital. Streetlight is a support program in which students visit young adult patients with chronic illnesses, forming friendships and providing a welcome distraction.

“They visit you and try to take your mind off of things,” Villegas said. “Through that I met some friends that I’m still pretty close to.”

Now, it’s a role reversal.

“It’s weird to see how a year ago I was on the other side,” Villegas said. “Now I’m the one giving the help and the support.” —Dorothy Hagmajer

To donate to the Riqui Villegas’ Chomp Cancer Fund, visit bit.ly/1KoS3dM.

Breast Cancer Patients, Survivors and their families and friends attend the monthly UF Health breast cancer support group. In the group, participants learn from and support others who have been affected by breast cancer during open discussions on topics such as the “new normal” of living beyond treatment, managing the anxiety and fear of recurrence and talking to family members about cancer and treatments. The group is facilitated by Pam Clevenger, R.N., (pictured) the UF Health Breast Center’s nurse navigator and a two-time breast cancer survivor. For more information, visit http://bit.ly/1cdGsD4.
Orthopaedic surgeon’s new role cuts to the core of cancer care

C. Parker Gibbs Jr., M.D., wears many hats — or rather, coats.

First, he is one of fewer than 200 U.S. surgeons considered an expert in the field of limb salvage surgery in children and adults, meaning Gibbs reconstructs limbs damaged by tumors and soft tissue sarcomas.

Additionally, Gibbs is a professor of orthopaedic surgery in the UF College of Medicine, the chief of the division of musculoskeletal oncology and a mentor to multiple medical students and residents each year. His week is a whirlwind of patient rounds, research, clinic visits, operations, meetings and conferences.

While he enjoys the creative aspect of surgery, he said, Gibbs’ newest title — that of deputy director of medical affairs for the UF Health Cancer Center — allows him to apply another passion: improving patient experiences on an individual level.

“It’s a job to ensure quality of cancer care for our patients as well as to enhance the patient’s experience when they come to see us,” Gibbs said.

To do this, he and the cancer center will strive to enhance clinical and translational research, promote a cohesive, multidisciplinary plan for cancer care across the enterprise and provide a warm and caring environment for patients and families.

Since his appointment to the position in October 2014, Gibbs’ goals have been to encourage communication among everyone involved in cancer care, to adopt a standardization of treatment for common forms of cancer across all UF Health campuses and to integrate research and education with clinical care.

“I think we have an extraordinary group of dedicated and smart cancer specialists and a cancer-dedicated nursing staff who really care about these their patients,” Gibbs said. “Each individual truly appears dedicated to helping his or her patients — and my job is to make all those individual efforts contribute to the large whole.”

For example, he intends to form disease-based working groups of doctors in various specialties, such as lung cancer, to focus on quality improvements and patient-experience initiatives. This will streamline development of effective patient treatment plans, evaluation of progress, facilitation of clinical research and development of better therapies.

Aside from working with his colleagues, Gibbs hopes to also improve communication with referring doctors, recruit undergraduate students as volunteers and establish a patient advisory board to better understand patient perspectives.

“One of the big problems patients have when they get cancer is that they lose control and suddenly have to trust us completely,” he said. “I honestly believe if patients actually participate in their own care and have some say so, they do better.” —Dahlia Ghabour
Security blankets

TOP RIGHT: A group of family, friends and donors gathered recently at the UF Health Davis Cancer Pavilion with Donielle Southwell (third from left) and sister Kriscilla LaForce (first from the left) to honor their mother, who lost her battle with breast cancer. In tribute, Donielle and her team funded a donation of blankets that are custom embroidered for newly diagnosed patients. Seated between the women is oncologist Bruce Stechmiller, M.D. BOTTOM RIGHT: UF Health patient Juettie Kelley received one of the blankets.