



Pathway to NCI Designation

" ... The purpose of National Cancer Institute (NCI)-Designated Cancer Centers is to capitalize on all institutional cancer research capabilities, integrating meritorious programs in laboratory, clinical, and population research into a single transdisciplinary research enterprise across all institutional houndaries "



THE PARAGRAPH TO THE LEFT is taken from the Reviewer's Orientation Manual, the guide NCI reviewers such as myself use to evaluate the accomplishments of cancer centers seeking NCI-designation. A common shorter translation of it is, "the whole is greater than the sum of the parts." For a new cancer center like ours, with high aspirations to become an NCI-designated cancer center within a decade, "re:align" better reflects what we have been doing since my arrival at George Washington University (GW) a little more than two years ago.

Together with the senior leaders of the GW School of Medicine and Health Sciences (SMHS) and its clinical partners, the GW Medical Faculty Associates (MFA), GW Hospital, and the Milken Institute School of Public

Health at GW, we are breaking down old silos and aligning all cancer-related initiatives (laboratory, clinical, and population research) into one cohesive entity: the GW Cancer Center. This decision to invest significant time and capital in the fight against cancer is critically important for Washington, D.C., a community that continues to rank among the nation's leaders in the incidence of and mortality from numerous cancer types.

The GW Cancer Center team has worked diligently to align existing cancer programs and many talented faculty members and administrators from GW's Foggy Bottom campus, as well as from our affiliated institution, Children's National Health System, and paired them with strategic new recruits in an effort to create an innovative cancer center in the city and the surrounding metropolitan region. So far, we have recruited more than 20 faculty members from prestigious academic institutions nationwide to join the GW Cancer Center.

Our alignment and growth has to be strategic; as such, we are building upon our existing clinical and scientific strengths, and we are tailoring them to fill gaps in cancer care and research in the region. We have identified four basic science programs – cancer biology (genetics and epigenetics), cancer immunology and immunotherapy, microbial oncology, and cancer engineering – and one population sciences program (cancer prevention and policy) that have the greatest relevance and impact to our community, and we are investing significant effort and resources to make them hallmarks of the GW Cancer Center portfolio. We are also bolstering clinical programs that empower our patients from diagnosis to treatment and, ultimately, to survivorship. To achieve these goals, we are looking outside our campus boundaries for guidance, and therefore we have selected an external advisory board composed of NCI-designated cancer center directors and leaders in the specialties where we want to achieve national prominence. Internally, we have established a governance committee, which includes the dean of SMHS, the CEO of GW Hospital, and the president and CEO of the MFA that helped us in making this alignment smooth and effective.

In the pages of this edition, titled *re:align*, you can read about our plans to earn an NCI designation; our emphasis on lymphoma research and treatment through the use of cutting-edge immunotherapeutic approaches, such as CAR T-cell therapy; our efforts to address access-to-care issues and other health policy concerns; and our programs to improve quality of life for our cancer patients in active treatment and beyond.

On a personal note, the vision we outlined in our first edition, *re:imagine*, is becoming a reality, and this edition, *re:align*, is a proof that with your support and commitment, we can make "the whole greater than the sum of the parts" at GW Cancer Center.

EDUARDO SOTOMAYOR, MD Director, George Washington University Cancer Center

re:align







ALIGNING ON LYMPHOMA CARE

A CONFLUENCE OF SCIENCE

Microbial oncology is the

study of how microbes,

or parasites, can be manipulated

to fight cancer. Some microbes

such as viruses, bacteria,

A POODLE AMONG PATIENTS

- Kieron Dunleavy, MD, is the inaugural leader of the GW Cancer Center's lymphoma team. The team will bring experts together from different specialties to grow and advance GW's lymphoma care and research offerings.
- can be modified to produce biological agents to potentially fight the disease.
- GW's pet therapy program was started in 2016 by Jamie Glidewell, a former social work intern at the GW Medical Faculty Associates. James the Poodle (above) is one of the therapy dogs who visits patients at the GW Cancer Center.

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- **ALIGNING ON** LYMPHOMA CARE
- PAVING THE WAY FOR CUTTING-**EDGE CLINICAL TRIALS**
- PATHWAY TO NCI DESIGNATION
- A POLICY OF IMPROVING ACCESS TO CARE
- A CONFLUENCE OF SCIENCE
- **COMPLEMENTS TO CARE**
- A POODLE AMONG PATIENTS
- **SUPPORT GROUPS**
- **SOLUTIONS FOR THE SKIN**

GW CANCER CENTER

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ROBERT SIEGEL, MD '77 Associate Center Director for Academics and Professor of Medicine

MITCHELL SMITH, MD, PhD Associate Center Director for Clinical Investigations

GW CANCER CENTER incorporates all of the existing cancer-related activities at the George Washington University (GW), GW School of Medicine and Health Sciences, the GW Medical Faculty Associates, the GW Hospital, and Milken Institute School of Public Health at GW, and serves as a platform to refocus and re-energize the university's efforts in cancer research and patient care. For more information about GW Cancer Center visit gwcancercenter.com

GW CANCER CENTER Science and Engineering Hall 800 22nd St, NW Washington, D.C. 20052 202-994-0329

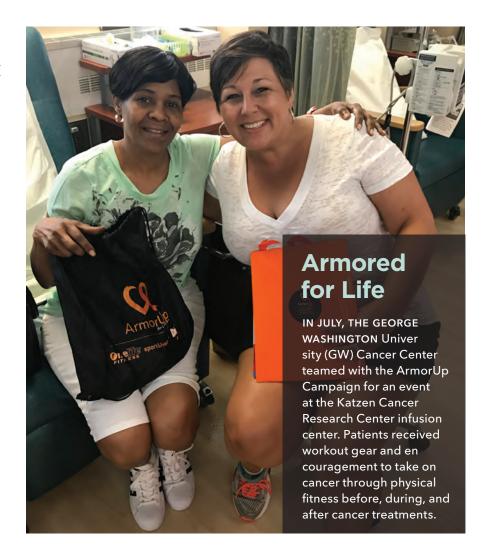
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GW Cancer Center Receives Avon Grant

THE GEORGE WASHINGTON UNIVER-SITY (GW) Cancer Center received a \$100,000 check from the Avon Foundation for Women at the 15th Annual Avon 39 The Walk to End Breast Cancer in May. Accepting the check on behalf of the GW Cancer Center was Mandi Pratt-Chapman, MA, associate center director for patient-centered initiatives and health equity.

The money will be used to fund a patient navigator who will break down barriers and provide resources to help 300 breast cancer patients in the D.C. area. The program will also include a new Spanish-speaking support group for women living with breast cancer.

"Avon's continued support of our patient navigators provides help for so many women in the area," said Pratt-Chapman. "Patient navigators are crucial resources for women, especially in a fragmented health care system, as they begin and continue their fight against breast cancer."



GW Researcher Receives \$1.2 Million Grant to Standardize Cancer Genomics Data

RAJA MAZUMDER, PhD, ASSOCIATE PROFESSOR of biochemistry and molecular medicine at the George Washington University (GW) School of Medicine and Health Sciences, recently received a \$1.2 million grant from the National Cancer Institute of the National Institutes of Health in support of a three-year project, titled "Integration of Comprehensive Cancer Mutation and Expression-Associated Data for Biomarker Evaluation and Discovery," to collect and standardize

the wide array of cancer research data available in the scientific community.

"There is a lot of data already generated, and that data is growing exponentially," said Mazumder. "Projects like this one will make utilizing that data much easier for researchers."

Mazumder and his research team are developing two databases, BioMuta and BioXpress. The team will pull the data into a framework, standardize cancer terms to ensure that they are mapped correctly, and

provide interfaces and applications that allow users to easily access the data.

"This project will allow for connecting cancer genomics mutation and expression data within an evolutionary context," said Mazumder. "The primary outcome will be that users of BioMuta and BioXpress will be able to identify high priority experimental targets for biomarker discovery for diagnostics, therapeutics, and prognostics."

Study Finds Genetic Variations May Offer a Strategy for Reducing Breast Cancer Incidence

RESEARCHERS AT THE GEORGE WASHINGTON University

(GW) exploring the genomic data from women with a genetic risk for breast cancer, who may never develop cancer, found their cancer-free state may be related to a second genetic variation. Looking at data of women with BRCA 1/2 genetic mutations, GW scientists discovered that some women also had a co-occurrence of a rare COMT genetic variant.

"Not all mutation carriers develop the disease, and the underlying reasons for this should be looked at, particularly with the large data sets now available to researchers," said Anelia Horvath, PhD, senior author for the study and associate research professor of pharmacology and physiology

at the GW School of Medicine and Health Sciences.

The study, titled "Co-Occurrence of COMT and BRCA 1/2 Variants in a Population" and published in the New England Journal of Medi-

cine, outlines a strategy for exploring similar genetic mutations.

"We do not claim the variant is preventative of breast cancer in BRCA 1/2 carriers; further research is needed to make those claims," said Horvath. "What we have done is illustrate a strategy for looking at the many data sets available for scientists today to look at different genes, different mutations, and discover patterns for why someone may never develop the disease predisposed by their high-risk mutation."

Patricia Berg Selected as AAAS Fellow

THE AMERICAN ASSOCIATION FOR

THE Advancement of Science (AAAS) named Patricia Berg, PhD, professor of biochemistry and molecular medicine at the George Washington University School of Medicine and Health Sciences, a fellow of the AAAS.

Berg was selected for her "important contributions to cancer research with the discovery of BP1 protein, activated in 80 percent of breast cancers and 70 percent of prostate cancers," according to the AAAS.

Berg also discovered that the presence of BP1 protein increases as breast cancer progresses from normal tissue to aggressive breast cancer. BP1 is associated with increased cell growth, resistance to drugs, and metastasis. Moreover, BP1 protein can control other genes, including several oncogenes known to cause breast cancer. Her work has had a dramatic effect on cancer research.

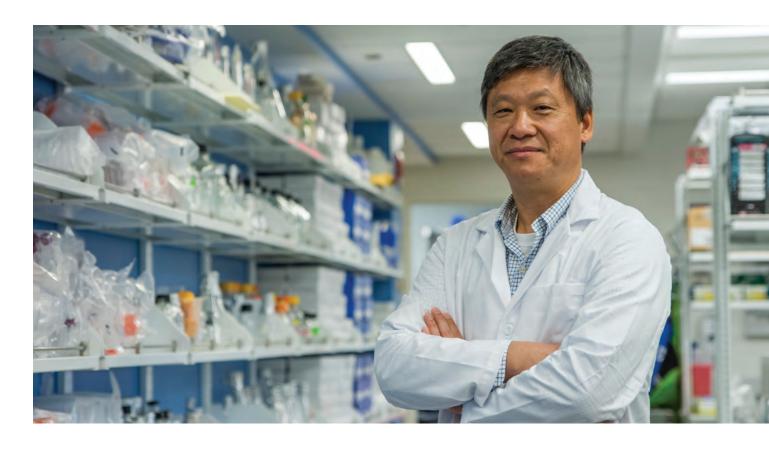
Pounding the Pavement for Cancer Patients

FOR EIGHT CONSECUTIVE YEARS THE George Washington University Cancer Center has partnered with the Marine Corps Marathon (MCM). GW Cancer Center hosted a team of marathon and 10k runners for the 42nd Annual race through Washington, D.C., and Arlington, Virginia, Oct. 22.

Money raised through this charitable partnership goes to help cancer patients across the D.C.-metropolitan area, and supports the GW Cancer Center's mission to drive innovative research, personalized care, and cancer policy in the nation's capital.

For more information about the GW Cancer Center MCM teams, email **gwcimcm@gwu.edu**.





Edward Seto, PhD, Installed as King Fahd Professor of Cancer Biology

INSTALLATION HIGHLIGHTS LONG-STANDING RELATIONSHIP BETWEEN SAUDI ARABIA AND GW

FOR EDWARD SETO, PhD, ASSOCIATE center director for basic sciences at the George Washington University (GW) Cancer Center and professor of biochemistry and molecular medicine at the GW School of Medicine and Health Sciences, the key to a long career in cancer research is simple: "Rather than try to know everything, we should focus on how we can contribute a small piece to a large puzzle."

Seto's small pieces – in the form of cancer epigenetics and histone deacetylase enzymes, or HDACs – have helped him chip away at finding a cure. Basic epigenetics boils down to "good" and "bad" genes in cells; the bad appear in cancer cells, the good in normal cells. HDACs can affect gene expression without altering

DNA, and Seto, by regulating gene expression, is working to turn off the bad genes and bring cancer cells back to normal cells.

"I'm honored today to be given this opportunity to contribute ... to the GW Cancer Center, the medical school, the university, and the educational ambitions and goals of the late King Fahd," said Seto at his installation as the King Fahd Professor of Cancer Biology on Feb. 6.

King Fahd bin Abdulaziz Al Saud, who ruled Saudi Arabia from 1982 until his death in 2005, was "somebody who cared very much about education," according to his nephew, Abdullah Al-Saud, ambassador to the United States at the Royal Embassy of Saudi Arabia. King Fahd served as minister of education from 1954 to

1960, and he helped lay the foundation for a nationwide school system.

"I'm very happy to be part of the celebration of something that somebody I knew was behind," said Al-Saud, after accepting a framed medallion commemorating the installation.

Saudi Arabia and GW, under King Fahd's leadership, began combining efforts in education in the 1990s, and the relationship has continued to grow, culminating in the installation.

With that support, Seto is prepared to follow another life lesson: "As a scientist, you must follow your results and data, trust your instincts, stay on your path, but be prepared for unexpected turns. Keep going until you find it, and don't let anyone discourage you."

On the Road to Cancer Prevention

IN 1995, LOCAL NONPROFIT ORGANIZATION the Prevent Cancer Foundation conducted a needs assessment of the Washington, D.C., community and determined that women in the region, particularly in medically underserved neighborhoods, were not getting screened for breast cancer. The city, they determined, had many gaps in access to mammography services, and a mobile mammography program, such as a "mammovan," might help close those gaps.

"The barriers to screening, particularly in terms of transportation, prevented women from getting to a mammography facility," recalls



Carolyn "Bo" Aldigé, president and founder of the Prevent Cancer Foundation. Insurance and cost, she adds, are other key problems. "We wanted to start a program where women could get screened, free-of-charge."

The foundation put the call out for partners and, after evaluating all of the proposals, chose the George Washington University (GW). "Together, we founded The GW Medical Faculty Associates Mobile Mammography Program, and we've been partners in it ever since," she says.

From that initial partnership has grown a relationship of more than 20 years, and in that time, the Alexandria, Virginia-based nonprofit has provided more than \$4 million in support for the university's cancer programs.

"Our mission," explains Aldigé, "is saving lives through cancer prevention and early detection. It's very important to fund research, support education, and provide community outreach, which to us means meeting the needs of the medically underserved – the uninsured and underinsured. Sometimes that means taking your programs to where the people in need are in the community."

Each year since that initial grant to create the GW Mammovan, the Prevent Cancer Foundation has awarded grants to GW to support the program and keep it rolling to communities in need of screening. In 2005, the Prevent Cancer Foundation provided another large grant to fund the purchase of a replacement van. That support has increased access to mammography services throughout Washington, D.C., providing care to more than 2,000 women annually.

"We are very proud of this 20-year association. We feel the need is still there, and this has grown into a program that women in the community really trust and rely on. It's been a great partnership," says Aldigé. "We have always felt that GW plays an important role in the community."

Each year since the initial grant to create the GW Mammovan, the Prevent Cancer Foundation has awarded grants to GW to support the program.

The Skinny on Sun Exposure

AN INTERNATIONAL SURVEY ON

SUN exposure behaviors and skin cancer detection found there are many imperfections and geographic inequalities in prevention of skin cancer.

Information from the study, published in the Journal of the European Academy of Dermatology & Venereology by researchers from La Roche-Posay and the George Washington University (GW) Department of Dermatology, could help inform future awareness campaigns developed to address the need to reduce the incidence of skin cancer.

With nearly 20,000 participants around the world, it was one of the largest international studies of its kind on consumer sun protection and behaviors. Survey results indicated that 88 percent of respondents were aware of the risks of developing skin cancer when exposed to the sun without protection. However, four in 10 respondents said they don't think to protect themselves from the sun outside of vacation.

"This is a global wake-up call," says Adam Friedman, MD, senior author for the study and associate professor of dermatology at the GW School of Medicine and Health Sciences. "There are still a lot of gaps in people not only actively monitoring for cancer, but also preventing it."

According to the data, using sunscreen and wearing sunglasses were the most frequent preventive measures. Education level, as well as gender, influenced the degree of sun protection: A higher level of education corresponded to a higher level of sun protection.



Aligning on Lymphoma Care

BY KATHERINE DVORAK

"IT'S AN OPPORTUNE TIME TO build something new in lymphoma," says Kieron Dunleavy, MD, inaugural leader of the George Washington University (GW) Cancer Center's lymphoma team. The GW Cancer Center is doing just that – bringing experts together from different specialties to create world-class lymphoma care offerings.

Dunleavy will draw upon support from GW Cancer Center Director Eduardo Sotomayor, MD, and Mitchell Smith, MD, PhD, associate center director for clinical investigations at the GW Cancer Center, to grow and advance GW's lymphoma care and research offerings.

One major component is a synergy between the GW Cancer Center and Children's National Health System (Children's National), which is opening the door to cutting-edge treatments.

Researchers at Children's National pioneered novel cell-based cancer therapies for patients with Epstein-Barr virus (EBV)-associated lymphomas, as well as more recently for patients with Hodgkin's disease and non-Hodgkin's lymphoma that are not EBV associated, says Catherine Bollard, MD, director of the Program for Cell Enhancement and Technologies for Immunotherapy at Children's National and professor of pediatrics and of microbiology, immunology, and tropical medicine at the GW School of Medicine and Health Sciences (SMHS).

Children's National currently treats lymphoma patients with CAR T-cells, immune system cells that are genetically engineered to kill cancer. Even adult lymphoma patients seek care at Children's National, Bollard says. However, the new collaboration will allow adult patients to receive care at the GW Cancer Center through an

extension of the Children's National cell therapy program, she notes.

"It's an incredibly exciting time for the field of immunotherapy," Bollard says. "To be able to extend more into the adult cancer space is very exciting. I think with the unique talent at GW [Cancer Center], this synergizes extremely well with ... where we should be going in the lymphoma field."

"I want to understand what the needs are in D.C. and really address those in a unique way that has not been done before."

 ${\color{red}\mathsf{KIERON}}\ {\color{blue}\mathsf{DUNLEAVY}}, \, {\color{blue}\mathsf{MD}}$



BRINGING EXPERTS TOGETHER FOR WORLD-CLASS CARE

Kieron Dunleavy, MD (right), is the inaugural leader of the GW University Cancer Center's lymphoma team. The team will bring experts together from different specialties to grow and advance GW's lymphoma care and research offerings.

Lymphoma Facts >>

- > There are two forms of lymphoma: Hodgkin's lymphoma and non-Hodgkin's lymphoma. With Hodgkin's lymphoma, cancer cells make up just a small number of the cells in a cancerous lymph node, while the rest of the cells are normal immune cells. In non-Hodgkin's lymphoma, cancer cells make up most of a tumor. Hodgkin's and non-Hodgkin's lymphoma also differ in the way they spread and in how they are treated.
- Non-Hodgkin's lymphoma is one of the most common cancers in men and women. It accounts for about 4 percent of all cancer in the United States, according to the American Cancer Society.
- > About 72,240 people in the United States will be told they have non-Hodgkin's lymphoma in 2017, according to the American Cancer Society.
- People with cancer who have difficulty eating or a loss of appetite during treatment should, according to the National Cancer Institute, eat small and frequent meals, avoid foods low in calories and protein, try high-calorie, high-protein drinks when not hungry, eat foods at room temperature, and avoid spicy foods.

That expertise will help the GW Cancer Center attract patients and new clinical trials, adds Smith. "We will have things here that nobody else has because of the partnership with Children's [National]," he says. "They're really a world-class program in cellular immunotherapy."

In addition to the expertise from Children's National, Dunleavy brings his own prowess in lymphoma research to GW after years of working in the field at the National Cancer Institute. Dunleavy says his major research interest is in diffuse large B-cell lymphoma, an aggressive form of lymphoma that can arise in lymph nodes, the gastrointestinal tract, the skin, the brain, or bone, among other locations. As the lymphoma offerings build up, he says he'll continue his research here.

Another key focus, Dunleavy adds, will be lymphomas that mainly impact people in their teens and 20s. Areas of research will include Burkitt lymphoma, in which cancer starts in immune cells called B-cells, and mediastinal large B-cell lymphoma.

These patients' lymphomas "are unique. If you look at their molecular biology, it's different from that of children and adults," Dunleavy says. "This suggests that there is a need to study AYA [adolescent and young adult] lymphoma in specific clinical trials."

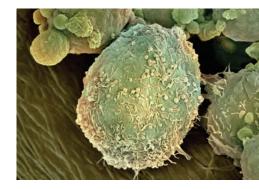
Dunleavy says the GW Cancer Center and Children's National will be able to work together to better serve that group, especially by building local studies geared toward that patient population.

The clinical partner institutions could create a model for the rest of the country as young lymphoma patients shift to adult care, Dunleavy points out. "I think GW and Children's National is a great platform to have this transition go well, to have the adult lymphoma doctors talk with the children lymphoma doctors, and to embark on new research."

Dunleavy says that paying attention to lymphoma issues in Washington, D.C., will be top of mind for his team.

"GW is a fantastic place because it has such a strong public health school [the Milken Institute School of Public Health] and a strong infectious disease program," Dunleavy says. "I want to understand what the needs are in D.C. and really address those in a unique way that has not been done before."

Another component is the Cutaneous Lymphoma Multidisciplinary Clinic, established by Frank Glass, MD, professor of dermatology and pathology at SMHS.



TWO TYPES OF LYMPHOMA

There are two forms of lymphoma: Hodgkin's and non-Hodgkin's. With Hodgkin's lymphoma, cancer cells make up just a small number of the cells in a cancerous lymph node. In non-Hodgkin's lymphoma, cancer cells make up most of a tumor.

The clinic aligns a variety of specialties for the care of patients with these disorders, Glass says. "You need a lot of resources to take care of these patients. So we'll have dermatology, hematology, hematology, hematology, and radiation ... because the disease has many different clinical presentations," he explains.

Glass notes that the clinic will offer patients "virtually every level of diagnostics and treatment modalities." These will include skin-directed creams, chemotherapy, phototherapy, light therapy, and radiation.

In addition to the larger treatment offering, Glass says the clinic will work to reach out to patients in the community to sign them up for clinical trials.

That community outreach will extend to physicians in and around Washington, D.C. as well. "We'll interface with community physicians, not only so they can recommend patients for clinical trials, but also to help with follow-up and continuity of care," Glass says.

"Our skills and training are particularly conducive for the interdisciplinary approach," he adds. "A lot of places are missing the key components of the team that make this system work, but we have that."



Mitchell Smith: Paving the Way for Cutting-Edge Clinical Trials

BY KATHERINE DVORAK

REACHING OUT TO UNDERSERVED COMMUNITIES

Mitchell Smith, MD, PhD, is the associate center director for clinical investigations at the GW Cancer Center. In that role, Smith oversees all cancer clinical trials. He also works to enhance trust in the community in order to grow participation in the trials the center runs, making a concerted effort to reach out to people living in underserved communities.

SITTING IN HIS NEW OFFICE on the eighth floor of the Science and Engineering Hall, Mitchell Smith, MD, PhD, associate center director for clinical investigations at the George Washington University (GW) Cancer Center, lays out his vision for a center that pioneers new treatments, rapidly delivers them to patients, and continually engages with the community it serves.

"It's always been the goal to take good care of patients, but now we want to be on the cutting edge in terms of research and providing access to new drugs for patients," he says. "Ultimately, [we want to] take science that's developed here, in the medical school and the laboratories ... to our patients."

In his role, Smith oversees all cancer clinical trials. He sees the GW Cancer Center becoming a hive of activity, opening new trials at a fast clip, while developing a strong focus on in-house science.

Smith also works to enhance trust in the community in order to grow participation in the trials the center runs. It's the GW Cancer Center's job to reach out to people living in underserved communities, and educate those residents, he says. "We'll talk to people who know the community, to learn how to reach residents and show them that the best treatment is often [provided in] a clinical trial," Smith says.

For much of his career, Smith concentrated on blood cancers, such as leukemia and lymphoma. He comes to GW from Cleveland Clinic's Taussig Cancer Institute, where he served as director of the lymphoid malignancy program. Prior to that, Smith held the role of director for the lymphoma program at Fox Chase Cancer Center in Philadelphia.

Smith says coming to GW is an exciting opportunity, adding he couldn't turn down the chance to build up the clinical investigations division of a new and evolving cancer center.

"You don't always have a chance to get in on the ground floor with people you respect and trust," he adds, noting that he knows GW Cancer Center Director Eduardo M. Sotomayor, MD, from his years in the lymphoma field. "This is a new challenge ... I bring certain expertise, but I have a lot of learning to do."



Pathway to NCI Designation

BY CAROLINE TRENT-GURBUZ

THE TAGLINE FOR THE NATIONAL Cancer Institute (NCI) Cancer Centers Program – "The whole is greater than the sum of the parts" – couldn't be more apt for the George Washington University (GW) Cancer Center as it seeks a prestigious NCI designation.

The goal, according to Michael Benedict, PharmD, associate center director for administration and finance at the GW Cancer Center, is to bring together the best minds across departments, the university, and the research community to create a competitive, high-quality cancer center

worthy of the designation. Benedict and Eduardo M. Sotomayor, MD, director of the GW Cancer Center, have long been in the business of NCI designations – Benedict on the planning and administration side, Sotomayor on the programming and reviewing side – and with their experience, they've crafted a five-year plan to reach that target.

Building Blocks

The designation is "first and foremost a grant," Benedict explains. "It's something we have to apply for, and it's very competitive – there are a limited number of these types of centers in the country."

Currently, there are just 69 NCI-designated cancer centers spread across 35 states and the District of Columbia. Each one, Benedict adds, has a different model, though all are built on six essential characteristics: a focus on cancer research, a demonstration of institutional commitment, a center director with the appropriate qualifications and authorities, transdisciplinary collaborations, suitable physical space, and organizational capabilities that allow for and facilitate the advancement of science.

"We're beginning to assemble the building blocks," Benedict says, pointing to the six essential characteristics as the framework guiding his and Sotomayor's plan. "We're now going through and creating scientific themes that will roll into programs for the cancer center."

Those themes, with additional subprojects, are designed to help the center "find [its] own niche," Sotomayor says. "I think by doing that, we're going to have a very good chance down the road to get NCI designation, so we need to be very strategic in our efforts."

The first, a hot topic among researchers, is cancer immunology and immunotherapy, which involves the investigation of the immune system's role in cancer development and treatment.

The second, a microbiology oncology program (see page 14 for more details) that builds on the strengths of the SMHS Department of Microbiology, Immunology, and Tropical Medicine, links campus scientists who are studying virus-initiated

cancers, the influence of the microbiome, and the role of endogenous retroviruses.

The third theme, cancer biology, is a basic science program that "looks at the genetics of cancer, how the control of cell growth goes awry," Benedict says, while a fourth, which continues to evolve, examines cancer through the lens of engineering. That particular prong also incorporates faculty from the School of Engineering and Applied Sciences into the fight against cancer, a key collaboration that highlights the GW Cancer Center's overall aim of fostering a cross-disciplinary research community.

"We're also recruiting scientists to fill unique needs," Benedict says, "and we're linking laboratory scientists with clinical investigators so that we can translate scientific discoveries to our patients and have our patient experience inform the laboratory."

Finally, the GW Cancer Center will focus on clinical and population-based research, "where our science interfaces with our patient care and the community we serve," says Benedict.

The Application Process

Once Benedict and Sotomayor have established the scientific themes and the essential characteristics, they will package those into an application and submit it to the NCI, most likely in 2021 or 2022.

The post-submission process includes a peer-review system where nationally known scientific leaders evaluate the GW Cancer Center for the NCI. "If you have shown impact and you score high enough, you might receive the designation," Benedict says.

In addition to the coveted NCI designation, a successful submission will also earn the GW Cancer Center a \$1 million grant to support further development of the center's infrastructure and shared resources.

What's key, Benedict says, is guidance and advice. The GW Cancer Center team, for instance, is using an external advisory board (EAB), made up of members from other cancer centers across the country. "The EAB helps keep us on track and makes sure we maintain the focus of creating an impact on [cancer]," says Sotomayor.

"We're recruiting scientists to fill unique needs, and we're linking laboratory scientists with clinical investigators so that we can translate scientific discoveries to our patients."

MICHAEL BENEDICT. PharmD

"They will tell us when they think we are ready to make an application."

Likewise, Benedict and Sotomayor will meet with NCI members, who will weigh in on the best time to submit an application. Each NCI designation lasts for five years, and a different set of centers are under review three times per year. So, Benedict explains, timing can be critical; if the team is planning to submit during the same period as older, larger, and more established centers, there could be fewer resources available, and there may be a recommendation to wait for the next review.

The Impact

While the designation itself is prestigious, and \$1 million is always useful, the benefits of an NCI cancer center extend far beyond the potential funding.

"The designation will help draw patients, it gives our faculty increased reputations, it enables us to recruit better scientists," Benedict says. "It really changes the culture of what we've got here."

The designation also drives economic development. As scientists, recruited to join the center, move to the District, they bring with them teams of people, who subsequently invest in the area.

Most importantly, however, the NCI designation – and the research that comes with it – translates to better patient care. "We take care of patients differently and better in NCI cancer centers than elsewhere," Benedict says. "It's the same concept that transcends the laboratory side to the patient care side, where we're organizing people around the diseases and patients. The care is different and enhanced."

NCI Designated Cancer Centers

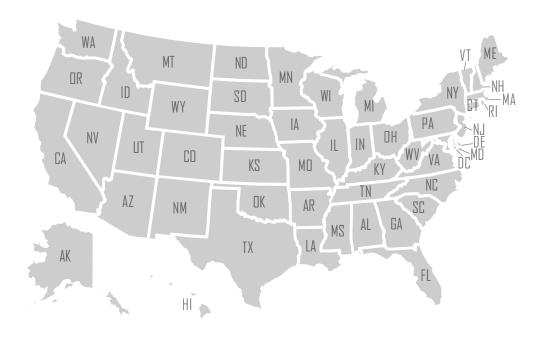
4%

Just 4 percent of the roughly 1,500 cancer centers in the United States are recognized as Comprehensive Cancer Centers, Cancer Centers, or Basic Laboratory Centers



NCI-DESIGNATED CANCER CENTERS

- **47** Comprehensive Cancer Centers
- 15 Cancer Centers
- 7 Basic Laboratory Centers



6

Comprehensive Centers meet NCI standards in six essential characteristics:

- > focus on cancer research
- > demonstration of institutional commitment
- > qualified center director
- > transdisciplinary collaborations
- > suitable physical space
- > organizational capabilities to facilitate the advancement of science

*Data from the National Cancer Institute website, nci.org

A Policy of Improving Access to Care

BY STEVE GOLDSTEIN



PATIENT-CENTERED INITIATIVES

Mandi Pratt-Chapman, MA, associate center director of the GW
Cancer Center, is the force behind the center's patient-centered

initiatives and health equity.

"It should not be for the patient to have to shop around and piece together the care they need."

MANDI PRATT-CHAPMAN, MA

THE GEORGE WASHINGTON UNIVERSITY (GW) Cancer Center is a bit like a toddler who is ready to run soon after mastering the walk. Less than two years after its founding, GW Cancer Center is reshaping the care landscape in Washington, D.C. One of its most significant achievements to date is radical improvement in access to cancer care for Medicaid beneficiaries who, officials say, have had to cope with delayed and fragmented service care across a variety of health care providers and systems.

The initiative was led by Associate Center Director Mandi Pratt-Chapman, MA, the dynamo behind patient-centered initiatives and health equity at the GW Cancer Center. "Dr. Sotomayor [director of the GW Cancer Center] wants us to have a policy presence given our unique location in the nation's capital," she explains. "We have resources to put together a larger policy portfolio, but for now the focus is on the Medicaid project."

Pratt-Chapman has held a series leadership positions in the cancer community and was the driving force behind GW's rise to national prominence in survivorship and patient-centered initiatives. Even before she arrived at GW, Pratt-Chapman was aware of access to care issues in the District of Columbia, and says she'd been hearing "that there were few oncologists who would take Medicaid patients." This was all very confusing from the patient's perspective. "It should not be for the patient to have to shop around and piece together the care they need," she says. "If you have a cancer diagnosis it should be easier to access the care you need."

Pratt-Chapman works with the assistance of Claudia Schlosberg, Medicaid director at the D.C. Department of Health Care Finance, bringing stakeholders together as part of a policy, systems, and environmental (PSE) change effort to improve access to the continuum of cancer care services for Medicaid beneficiaries.

GW Cancer Center discovered that the reason providers were not participating in the Medicaid network was that chemotherapy reimbursement was largely compensated by Medicaid below the drug acquisition cost. A push was made to adjust drug reimbursement to match Medicare reimbursement. "Sharing data and information, and having frank discussions led to policy changes to address these access barriers," says Schlosberg. "There's been a significant improvement of Medicaid operations."

Aiding in the effort was Sara Rosenbaum, JD, the Harold and Jane Hirsh Professor of Health Law and Policy at the Milken Institute School of Public Health at GW. "I provided additional information to Mandi about the D.C. program and also participated in the meetings with Claudia," says Rosenbaum, adding that she shared the view that the program as structured did not do enough to make medical oncology services accessible. "Now, drugs are available in more medical oncology locations and more doctors are seeing more medical oncology patients covered by Medicaid," she explains.

Asked why this disparity in access remained unresolved for so long, Schlosberg said that since she became Medicaid director in 2014, "my priorities have been to advance the creation of enduring systems to ensure the Medicaid program operates efficiently, effectively, and in the best interest of District residents. This means identifying, and, wherever possible, eliminating barriers to access and improving quality."

Rosenbaum says that other policy initiatives are being considered. "Mandi and I have talked about other things that could be done – such as better survivorship programs, better outreach programs," says Rosenbaum. Pratt-Chapman notes that there is huge potential "in having some of the nation's best policy experts at GW."

A CONFLUENCE OF SCIENCE

BY CAROLINE TRENT-GURBUZ

IT WAS EASY TO PUT it together, recalls Eduardo M. Sotomayor, MD, director of the George Washington University (GW) Cancer Center.

"All the ingredients are here. Our job was to put them together to prepare a nice meal," he says. "I'm confident because we have good science, so we'll be able to move the field forward."

The meal is microbial oncology, and with each course of the meal comes an expert chef, starting with Douglas Nixon, MD, PhD, chair of the Department of Microbiology, Immunology, and Tropical Medicine and Walter G. Ross Professor of Basic Science Research at GW School of Medicine and Health Sciences (SMHS), and newcomer Kieron Dunleavy, MD, who joined the team in April from the National Cancer Institute (NCI).

As Sotomayor explains, microbial oncology – or the study of how microbes, such as viruses, bacteria, or parasites, can be manipulated to fight cancer – boils down to the immune system. "These days, we have the technol-



AN INTERDISCIPLINARY APPROACH

Douglas Nixon, MD, PhD, chair of the Department of Microbiology, Immunology, and Tropical Medicine and Walter G. Ross Professor of Basic Science Research at SMHS, is examining the impact of human endogenous retroviruses on certain types of cancers with a \$2.2 million NCI grant.

ogy to modify immune cells or microbes to fight cancer," Sotomayor says.

One modified immune cell, known as a chimeric antigen receptor (CAR)
T-cell, is particularly effective against lymphomas and some types of leukemia. "These days, we have also learned that what we call 'inflamed' cancers are the ones more likely to respond to novel immunotherapeutic approaches," he adds. In these kinds of cancer, the body has an inflammatory reaction, and the immune cells are subsequently more receptive to treatment.

Non-inflamed cancers, or those with an absence of inflammation, are harder to treat. That's where microbes come in

Microbes have the unique ability to travel to hard-to-reach areas of the body, such as the pancreas, gallbladder, or prostate, that tend to exhibit "non-inflamed" features. Some microbes are also multicellular organisms that have circulatory and secretory systems, and they can be modified to produce biological agents to potentially fight cancer. Additionally, researchers can use anti-microbial therapies that can easily kill the "therapeutic microbes," Sotomayor says, to prevent harming the host.

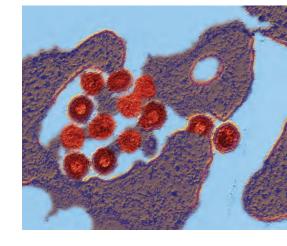
"By using these microbes ... we [might be able to] convert non-inflammatory tumors into more inflammatory ones," Sotomayor explains, adding that it makes treatment easier and more effective.

Using genetically modified, or transgenic, parasites to both convert tumors and deliver cancer therapy is an important goal of the microbial oncology program, but researchers have other significant goals as well. The

program also prioritizes the influence of intestinal or skin microbiota on cancer development and therapy – a rapidly evolving field that links microbial composition in compartments such as the gastrointestinal (GI) tract with the development of GI malignancies. Rounding out the innovative program is the study of retrovirus-related malignancies and the broader role of human endogenous retroviruses (HERVs) in immuno-oncology. That's the area in which Nixon's talent lies.

With a \$2.2 million NCI grant, Nixon, alongside GW collaborators, is examining how HERVs impact certain types of cancers. HERVs, he explains, are ancestral remnants of past viruses, which infected ancient humans, non-human primates, and other species, becoming integrated into DNA. These ancient viruses have remained in modern human DNA, passing from mother to child. Nixon's research team has long published studies on the effect of HIV infection on HERVs, and has found there may also be a link between HIV and cancer.

"It appears that breast and prostate cancer are found less frequently in HIV-infected people than in the general population," Nixon says. "That is a puzzle, because we think of HIV infection as being associated with people having more cancer. That is true for cancers such as anal cancer, but it seems strange to have a virus infection like HIV, which appears to, in some senses, protect against prostate or breast cancer."



BIOLOGICAL AGENTS FIGHTING CANCER

Microbial oncology is the study of how microbes, such as viruses, bacteria, or parasites, can be manipulated to fight cancer. Microbes have the unique ability to travel to hard-to-reach areas of the body, such as the pancreas, gallbladder, or prostate. Some microbes are also multicellular organisms that have circulatory and secretory systems, and they can be modified to produce biological agents to potentially fight cancer.



With a \$2.2 million NCI grant,
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Nixon had already discovered that HIV wakes up some of the transcriptionally silent HERVs; therefore, it might be possible that in patients with HIV, the newly activated HERVs stimulate an immune response, which surveils prostate and breast cancer cells that could be expressing the same HERVs. To test this hypothesis, Nixon, in collaboration with Matthew Bendall, a PhD rotation student, and Keith Crandall, PhD, director of the GW Computational Biology Institute at the Milken Institute School of Public Health at GW, developed "Telescope," a computational pathway program designed to determine which HERVs are expressed in prostate, breast, and colon cancers, in patients with and without HIV.

"This is really a brand-new tool, which we think will be incredibly valuable in looking for expression of these endogenous retroviruses in a number of different disease categories, including in cancer," Nixon says.

Like Nixon, Dunleavy is building his microbial oncology research on past experience in HIV. "I've got a background in developing treatments for HIV-associated lymphomas, and we thought at GW it would be very interesting to have a microbial oncology program where we not only look at HIV, but also look at ... other organisms and viruses that may contribute to lymphomas," he says.

As the field progresses, Dunleavy explains, researchers are developing a better appreciation of the role viruses can play in cancer. Sotomayor is building the mission of the GW Cancer Center around that development.

"The lessons we are learning from immunology and infectious disease are driving the knowledge that we are uncovering in cancer immunology," he says. "As we learn how the immune system fights infection, at the molecular level, all the lessons we learn from that can be applied to harnessing the immune system to fight cancer."

Right now, Sotomayor, with team members such as Nixon and Dunleavy, is building the GW Cancer Center's clinical research infrastructure, but his ambitions – he'd like to see ideas translated to the clinic within five years – hinge on his instincts about cancer. "There is a confluence of [using] immunology against infectious diseases and immunology against cancer, and I think in the future, we're going to see there is a closer link between these two fields than we thought," he says. "That's the reason that bringing together these experts makes a lot of sense."



BY THOMAS KOHOUT | PHOTOGRAPHS BY SUSAN GENDRON



BREAST CANCER IS ONE OF the leading forms of cancer facing the country, with more than 250,000 new cases diagnosed each year, according to the Centers for Disease Control. Although the incidence of breast cancer has dropped annually since 2000, Washington, D.C., still has one of the highest rates in the country. To combat this ongoing problem, the George Washington University (GW) Comprehensive Breast Center (Breast Care Center), supported by clinical partners the GW Medical Faculty Associates, GW Hospital, and the GW Cancer Center, has grown to become one of the area's leading breast cancer programs. GW's nationally accredited center offers multidisciplinary services for early detection, diagnosis, and treatment of breast cancer using advanced technologies to help breast cancer patients navigate their way through diagnosis, treatment, and survivorship.

For nearly a decade, the Breast Care Center has bolstered its gold-standard clinical care by offering a one-time complementary medicine clinic each month. The clinic serves as a sampler for many of the integrative care options available such as physical therapy (PT), therapeutic massage, Reiki, acupuncture, and naturopathic consultation.

"[The clinics] allow us to provide a more holistic approach to patient care," says Christine Teal, MD, chief of the Division of Breast Care, associate professor of surgery at GW School of Medicine and Health Sciences, and director of GW's Breast Care Center.

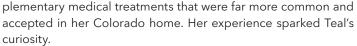
Treatments for breast cancer can take a toll on patients. Side effects such as pain, fatigue, or depression are common, but often slip past conventional medical therapies. Complementary medicine can sometimes offer patients relief where traditional medicine leaves off.

For patients, such as Shaunique Pierre, the free clinic offers a welcome opportunity to sample some of the holistic offerings available and address some of the lingering side effects of treatment.

"My arms weren't going over my head without some discomfort, and I had lost sensation in my upper arm," explains Pierre, who was having mobility issues in her shoulder area following reconstructive surgery. "The PTs do an amazing job, they handle everything. Now the sensation is starting to come back."

It's nice, says Teal, "when we are doing this complementary clinic, for patients to be seen by a PT as well," adding that, while physical therapy is covered under most insurance plans and Breast Care Center patients use the PT services through the hospital, the extra session is well received.

Teal attributes her interest in complementary medicine to a moment early in her career when her best friend was diagnosed with breast cancer. During treatment, Teal's friend explored com-

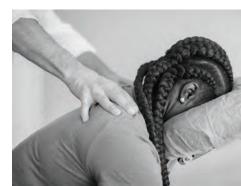


"I just loved the holistic approach," she recalls. "Herbs that helped during chemotherapy, things that helped reduce neuropathy, it was a unique emphasis on well-being and how to make yourself feel better while going through a more conventional treatment plan. I hoped that someday I could provide those kinds of services to my patients.

"I think most physicians these days are open to complementary medicine practices," Teal adds, stressing that these services are called complementary medicine for a reason; they aren't alternatives to conventional treatment protocols. "It's always in addition to standard treatment. [Complementary medicine] is just trying to find a way to get patients through standard treatment feeling a little bit better."



Susan Gendron is an award-winning photographer and graduate of the University of New Hampshire with a BA in studio art with a concentration in photography. She is self-taught in digital shooting, darkroom, and archival printing techniques. She is also a breast cancer survivor and credits her good health to the care she received from the physicians, nurses, and staff of the George Washington University (GW) Medical Faculty Associates and the GW Hospital.





FINDING THE RIGHT DIET

Naturopathic consultation
enables patients to discuss
nutritional approaches to
their cancer treatments, such
as special diets and nutri
tional supplements. These
therapies range from follow
ing a basic, healthy vegeta
ble-based diet to adopting
highly restrictive diets and
supplement regimens.

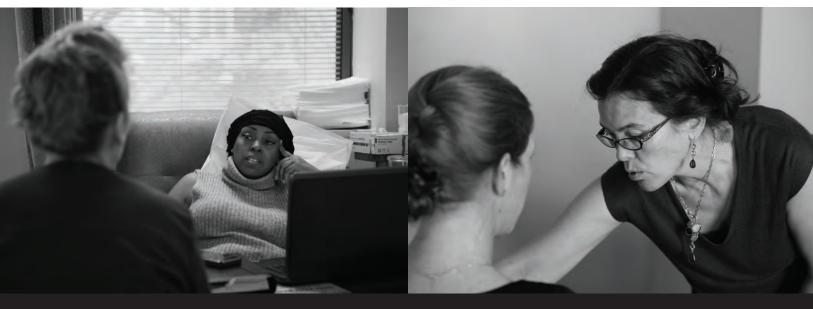














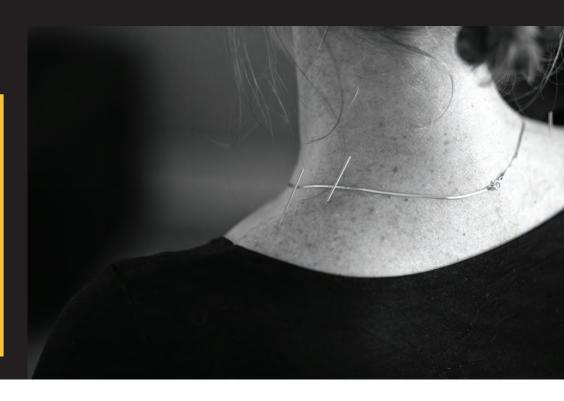
STRENGHTEN-ING THE BODY

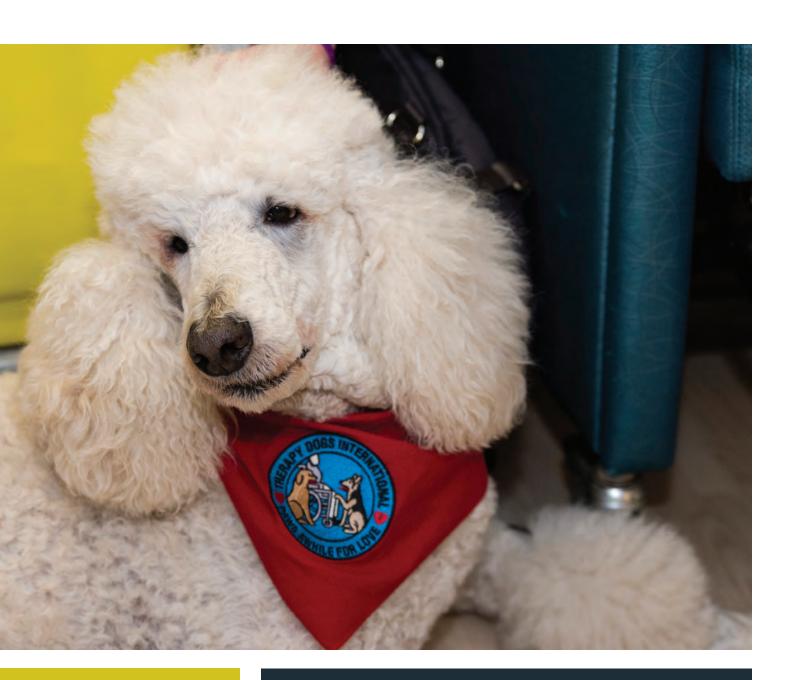
Physical approaches, such as exercise, progres sive deep relaxation, massage, chiropractic or osteopathic thera pies, among others, are designed to relax, align, energize, and strengthen the body.



ACUPUNCTURE FOR GREATER WELL-BEING Acupuncture is a centuries-old

Acupuncture is a centuries-old Chinese medicine that uses hair-like needles to stimulate key points along the nervous system. Proponents believe this stimulation sparks a bio chemical response that can be used to treat nausea or pain and promote greater physical and emotional well-being.





A Poodle Among **Patients**

BY CAROLINE TRENT-GURBUZ

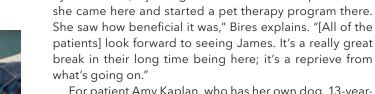
"He loves people, and he's calm. He's the perfect therapy dog."

AMY KAPLAN

EVERY WEDNESDAY, JAMES THE POODLE – occasionally sporting thematic wear, be it a cowboy hat, colorful bandana, or pumpkin costume – and his owner, Sandra Johnson, visit the Infusion Center at the George Washington University (GW) Cancer Center. James' presence is met with pats and rhetorical queries of "who's a good boy?" by patients and staff members alike.

On this particular Wednesday, James is warmly greeted by Jennifer Bires, LICSW, a former clinical social worker at the GW Cancer Center, before he clicks through the door to the patients receiving doses of chemotherapy.

The pet therapy program, Bires says, was started by Jamie Glidewell, a social work intern at the GW Medical Faculty Associates, a year ago. "She worked in hospice before



For patient Amy Kaplan, who has her own dog, 13-year-old Lulu, seeing James "is a highlight, that's for sure."

"He loves people, and he's calm," she says, reaching down from her reclined chair to rub James' back. "He's the perfect therapy dog."

James is newly certified, not quite a year into his new role. The idea to transition the almost 7-year-old poodle from pet to therapy dog sparked after Johnson, a native of Orlando, Florida, read coverage of the June 2016 night-club shooting in her hometown.

"This group was sending therapy dogs to Florida to help with the grieving of all those families, and something about the article caught my attention," she recalls. "I decided to look up the therapy dog group [Therapy Dogs International]. I thought, 'You know what, this is perfect timing; this is meant to be. I'm going to sign him up and get registered.""

After a temperament evaluation, James was registered, and Johnson scouted out potential clinics. The GW Cancer Center was the first place she called, and the response was immediate. "We set it up to start coming every Wednesday," she says. "James really likes it."

Although he isn't the only therapy dog who visits patients at the GW Cancer Center, James is the most regular one. "There are days you can tell people are really happy to see him," Johnson says. "He's not a big kisser; he

doesn't really give out a lot of them. But sometimes he's really kissing somebody and giving them lots of love, and you can tell that he's really helped some people, taken their mind off things."

Patient Taylor Ferrell agrees that James always makes him feel better. "You could bring him every day. That would make me happy."







PUPPY LOVE

GW's pet therapy program was started a year ago by Jamie Glidewell, a former social work intern at the GW Medical Faculty Associates. Of the therapy dogs who visit patients at the GW Cancer Center, James the Poodle, pictured here, is the most regular one.

SUPPORT GROUPS

The George Washington University Cancer Center with support provided by the Dr. Cyrus and Myrtle Katzen Cancer Research Center (Katzen Center) supports a wide variety of holistic and wellness services for cancer patients and their families. These groups are free of charge and open to the community.

THE GW MEDICAL FACULTY ASSOCIATES

(GW MFA) 2150 Pennsylvania Ave., N.W. Washington, D.C. 20037

ACTIVE TREATMENT

(all cancers)
Open to patients currently in treatment.
Registration required.
Second and Fourth Wednesday
each month, 12:30–1:30 pm
GW Cancer Center Board Room
MFA, first floor, 1-402
Facilitator: Lauren Broschak, LGSW
lbroschak@mfa.gwu.edu
202-677-6229

ADVANCED BREAST CANCER GROUP

Open to patients with stage IV breast cancer. Registration required. Fourth Tuesday of each month, Noon-1 p.m.
GW Cancer Center Board Room MFA, first floor, 1-402
Facilitator: Lauren Broschak, LGSW lbroschak@mfa.gwu.edu 202-677-6229

BRAIN TUMOR SUPPORT GROUP

Open to brain tumor survivors/patients and caregivers.
Registration required.
First Tuesday of each month,
6-7:30 p.m.
GW Cancer Center Board Room
MFA, first floor, 1-402
Facilitator: Lauren Broschak, LGSW
Ibroschak@mfa.gwu.edu
202-677-6229

CAREGIVERS' SUPPORT GROUP

Open to caregivers of those diagnosed

with cancer to share common concerns, give and receive advice, and learn coping skills. Registration required. Third Tuesday each month, 12:30–1:30 p.m.
GW Cancer Center Board Room MFA, first floor, 1-402
Facilitator: Lauren Broschak, LGSW lbroschak@mfa.gwu.edu 202-677-6229

GENTLE YOGA

This group introduces patients and caregivers to the physical and emotional benefits of yoga.
Tuesdays, 4–5 p.m.
GW Marvin Center,
Fifth floor activities room
800 21st St., N.W.
Facilitator: Yael Flusberg
eruiz@mfa.gwu.edu
202-677-6228

HEAD AND NECK CANCER GROUP

For patients, survivors, and caregivers of head and neck cancers. Registration required.
First Tuesday each month,
12:30-1:30 p.m.
GW Cancer Center Board Room
MFA, first floor, 1-402
Facilitator: Lauren Broschak, LGSW
lbroschak@mfa.gwu.edu
202-677-6229

KIDS' CLUB

For families with kids (ages 6–12) in which a parent or sibling is in treatment or is a survivor.
Fourth Wednesday each month, 6–7:30 p.m.
Smith Center for Healing and the Arts 1632 U St., N.W.
Facilitators: Erin Price and Lauren Broschak 202-483-8600

MULTIPLE MYELOMA GROUP

This group is open to multiple myeloma patients/survivors and caregivers.
Registration required.
Third Tuesday each month,
5:30-6:30 p.m.
GW Cancer Center Board Room
MFA, first floor, 1-402
Facilitator: Lauren Broschak, LGSW
Ibroschak@mfa.gwu.edu
202-677-6229

NUTRITION CLUB

First Monday each month, Noon-1 p.m. GW Cancer Center Board Room MFA, first floor, 1-402 Facilitator: Jennifer Leon 202-741-6489

PROSTATE CANCER EDUCATIONAL GROUP

The prostate cancer educational group is free and open to patients and survivors in the Washington, D.C., area. Registration required.
Second Tuesday each month, 6–7 p.m.
GW Cancer Center Board Room
MFA, first floor, 1-402
Facilitator: Lauren Broschak
Ibroschak@mfa.gwu.edu
202-677-6229

SURVIVORSHIP SERIES

An educational series featuring a different speaker each month.
Second Thursday each month,
11:45 a.m.-12:45 p.m.
GW Cancer Center Board Room
MFA, first floor, 1-402
Facilitator: Lauren Broschak
lbroschak@mfa.gwu.edu
202-677-6229

YOUNG ADULT GROUP

Young adults (19 to 39 years of age) who are currently in treatment or are cancer survivors.
Third Sunday of each month,
5-6:30 p.m.
Smith Center for Healing and the Arts
1632 U St, NW
Facilitator: Jennifer Bires
202-483-8600

Parking is validated for all groups at the GW Cancer Center. For more information about upcoming support groups and events, visit smhs.gwu.edu/katzencancer/events.

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Solutions for the Skin

CANCER TREATMENTS INDUCE A HOST

of side effects, but among the most distressing can be dermatological: hair loss, extremely dry skin and rashes, infections, painful nail conditions. Some patients turn away from treatment altogether, while others simply battle through. Adam Friedman, MD, associate professor of dermatology at the George Washington University (GW) School of Medicine and Health Sciences, however, believes he has a potential solution.

A new Supportive Oncodermatology Clinic, falling under the umbrella of the GW Cancer Center and within the oncodermatology program, is designed as a one-stop shop for patients.

The clinic, which currently operates on a monthly basis, serves as a resource for both oncologists and their patients, while prioritizing survivorship and increasing knowledge of the burgeoning supportive oncodermatology field.

"This is somewhat unique ... there are only a handful of other institutions across the country that offer a clinic that addresses the well-established and, for the most part, expected side effects to many if not all of the cancer therapies that are life-saving but also come with some significant baggage," Friedman says.

The side effects, he adds, can range from chemotherapy-induced alopecia, or hair loss, to xerosis, severely dry skin that can cause fissures in the hands and feet that are "exquisitely painful and hard to heal."

What's critical is seeing patients in the clinic early, when they can receive preventive medication to possibly limit side effects, as well as during and after cancer treatment. "A lot of the skin, hair, and nail side effects we see can often persist well beyond the time when treatment has ended," Friedman explains. "Plus, having a history of any type of cancer increases your risk for skin cancer. So these patients need a different level of surveillance, a different level of care than someone who has not undergone treatment for cancer."

In addition to monitoring patients' progress, Friedman also catalogues any new side effects and potential treatments. Patients in treatment at the GW Cancer Center, he adds, may have their oncologist or nurse contact the oncodermatology scheduling appointment team to set up a visit to the clinic, while those receiving treatment outside of GW may contact the Department of Dermatology and request to be seen by an oncodermatologist.

SUPPORTIVE ONCODERMATOLOGY

The Supportive Oncodermatology Clinic, launched in part thanks to support from La Roche-Posay, will support cancer patients and survivors who suffer from the persistent side effects of cancer treatments, as well as provide diligent skin cancer surveillance.

The side effects of cancer treatments can range from chemotherapy-induced alopecia, or hair loss, to xerosis, severely dry skin that can cause fissures in the hands and feet.

THE GEORGE WASHINGTON UNIVERSITY

School of Medicine and Health Sciences 2600 Virginia Ave, NW Suite 329 Washington, D.C. 20037

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