# GW RADIATION ONCOLOGY

## ANNUAL REPORT 2021

GW Cancer Center

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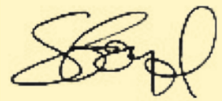
# Letter from the Division Director

More than ever before, the dedication from our faculty and staff as we all dealt with the unique challenges of working in a COVID-19 world has amazed me. Isolation, restrictions, and uncertainty were new variables that we all needed to deal with. I'm proud to say our faculty and staff answered the challenge with remarkable dedication, skill and creativity. Patient care remained a top priority during this most challenging time. From the radiation therapists and staff in our clinics, to the physicists and physicians developing personalized treatment plans, we continued our roles as health care providers with a dedicated spirit. In addition, the rapid deployment and growth of our telehealth program was a remarkable success story in a difficult year. Telehealth became invaluable to us as an enterprise and allowed us to continue to deliver care to our patients in a safe and convenient way.

The past year also made clear the imperative of a renewed emphasis on diversity and inclusion at GWCC. While there is much to be proud of, including efforts to impact diversity within both our institution and our patient population, there remains significant work to be done. One of the most important ways we as clinicians can reshape the field is to broaden its accessibility to underrepresented groups through outreach and opportunity. The DC Health and Academic Prep Program (DC HAPP), GW Mentored Experience To Expand Opportunities in Research (METEOR) program, and other programs with local students are just one example of the means by which this can and should be done. On the research side, our faculty are shedding light on care disparities as the first step in rectifying them. This includes work by Minh Huynh-Le, MD, MAS to highlight genetic risk stratification models among prostate cancer patients with African and Asian genetic ancestry, in the hopes to reduce health disparities. It is also vital to create as welcoming a space as possible for patients as well as staff. Among the many ongoing efforts in this regard, training on the role of implicit bias in healthcare has become a priority under the leadership of Interim Senior Associate Dean for Diversity & Faculty Affairs, Yolanda Haywood, MD, and Dean Barbara Bass.

I find tremendous hope in the strength and resilience of the GW faculty and staff who have worked to see us through these difficult times. This is a defining moment for GW and for our community. Our efforts over the past 16 months have helped heal and sustain our city, our region and our world. As we move forward and emerge from the pandemic, we continue to be driven to fulfill our mission of providing excellent care, driving change in health care delivery through scientific innovation, and training tomorrow's physicians to provide that care. We are proud of our past, committed to providing the very best care today, and eager to carry the GWCC to even higher levels tomorrow.



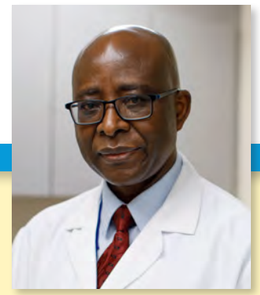
***Sharad* Goyal, *MD***
*Professor of Radiology and Neurosurgery*
*Director, Division of Radiation Oncology*

# MEET OUR PROVIDERS

## Sharad Goyal, MD

*Professor of Radiology and Neurosurgery*
*Division Director, Radiation Oncology*

Dr. Goyal's specialties include breast and central nervous system cancers. He also treats complex cases, like rare tumors or patients who need re-irradiation. His research focuses on improving the quality of care received by cancer patients and survivors by advancing the ways in which cancer is treated with radiation.



## Martin Ojong-Ntui, MD

*Assistant Professor of Radiology*

Dr. Ojong-Ntui's specialties include breast and genitourinary cancers, as well as palliative care.

## Yuan James Rao, MD

*Assistant Professor of Radiology*
*Director of Brachytherapy*

Dr. Y. James Rao, MD is a board-certified radiation oncology specialist in the treatment of prostate cancer, gynecological cancers, and head and neck cancers. Dr. Rao serves as the Director of Brachytherapy and Assistant Professor at the George Washington University.

## Minh Huynh-Le, MD

*Assistant Professor of Radiology*

Dr. Minh-Phuong Huynh-Le is a radiation oncologist specializing in the treatment of gastrointestinal and thoracic cancers. She is an expert in advanced radiation techniques including intensity modulated radiotherapy (IMRT), stereotactic body radiotherapy (SBRT), and stereotactic radiosurgery (SRS).



# FACULTY & STAFF LISTING

### Faculty
**Sharad Goyal, MD (Division Director)**
**Martin Ojong-Ntui, MD**
**Yuan James Rao, MD**
**Minh Huynh-Le, MD**

### Manager
**Rana Kianni, RTT**

### Medical Physics
**Mehrdad Sarfaraz, PhD**
**Hamid Aghdam, MS**

### Nursing
**Shamel Boston**

### Radiation Therapists
**Emebet Sileshi, RTT**
**Sirak Woldetsadik, RTT**
**Steven Salama, RTT**
**Joseph Phelan, RTT**
**Carly Dugan, RTT**

### Reception / Front Desk
**April Batiste**
**Judith Thompson**

### Administrative
**Jenna Breitstein (PGA)**
**Miriam Felps**
**JéLavonda O'Leary-Doy, CPC**

### Allied Health Staff
**Mary Baginsky, Clinical Dietitian**
**Rebecca Boersma, Speech Pathologist/Therapist**
**Jennifer Schottler, SR Speech/Language Pathologist**

# COVID-19 AND PATIENT EXPERIENCE AT GW RADIATION ONCOLOGY

***Miriam Felps***

The COVID-19 pandemic has caused abrupt changes in our day to day lives. At GW Radiation Oncology, the safety and well-being of our patients has been our top priority. Since the pandemic began, GW Radiation Oncology instituted pre-treatment COVID testing prior to patients starting their radiation therapy. Fortunately, our pre-treatment positivity rate was less than 1% between May 1, 2020, and January 25, 2021. Therefore, temperature checks, verbal screening, face masks, hand washing, limiting the number of patients in the waiting rooms, and adherence to CDC guidelines have been essential not only in the community but also within our practice.

The pandemic has been especially difficult on cancer patients, especially those with compromised immune systems. The pandemic has instilled a common fear of going out in public and being in contact with others. As a department, our goal is to make our patients feel as safe as possible. We interviewed a few patients to gain insight on their point of view and how the pandemic has affected their treatment experience. A 63-year-old breast cancer patient commented on her experience while finishing treatment during the pandemic. She stated, "I did not experience any fear because the precautions were well done. Everyone was wearing masks and maintaining six feet apart...I also had the early appointments." Another patient was pleasantly surprised by our ability to efficiently move patients in and out of the clinic during a time when we are limiting the number of patients visiting on site. Likewise, a breast cancer patient mentioned that the waiting room was the only "anxiety-provoking" part of her experience, but she did not fear being infected with COVID-19 because everyone was taking the necessary precautions.

Meanwhile, our patients struggled with other battles related to the pandemic. One of our patients also mentioned, "the hardest part was not having any visitors during chemo." The restriction on visitors has made cancer treatment especially difficult during this time as patients aren't having the same social support during their appointments. The pandemic also caused delays for a variety of reasons. Patients who tested positive for COVID-19 would have their radiation treatments delayed, usually by a few weeks. For one patient, she mentioned, "I had to wait for surgery. It was delayed for several months, which delayed my radiation treatment." Aside from treatment-related issues, a 42-year-old breast cancer patient wished that she could have seen what her doctor's face looked like without a mask. So, the pandemic has affected the personal interactions we share with our patients. Nonetheless, our goal is to improve the quality care delivered to our patients and one patient suggested, "vaccinating the patients that come in," as the next step to protect the patients, the staff, and the physicians. Recently, the COVID-19 Pfizer-BioNTech and Moderna vaccine have been available to staff and physicians at GW. Based on clinical trial evidence, the vaccines were shown to be 95% and 90% effective, respectively, at preventing symptomatic COVID-19 infections.

**What we have learned...**

Our team felt that the first step to protect our patients was to strictly adhere to the CDC guidelines and implement routine protocol that reduces all risks of COVID-19 infection. The protocol has been successful in keeping cases extremely low in the department. Our patient feedback has been overwhelmingly positive, and we can confidently say that we proficiently made our patients feel safe. We also felt that getting the COVID-19 vaccine was a part of our responsibility in protecting the health of others. Most of the department has been fully vaccinated and equally importantly, we communicate with our patients on how they can register for the vaccines too. The vaccinated staff and physicians have provided the patients with significant comfort and relief when they visit for their radiation treatment. We continue to improve our strategies in protecting our patients, staff, and physicians from COVID-19. In the hopes of fighting this pandemic, we look forward to increasing vaccination rates and maintaining our adherence to the recommended CDC guidelines.

# GW RADIATION ONCOLOGY HEALTHCARE WORKERS RECEIVE COVID-19 VACCINE

On December 14th, some of the first doses of the COVID-19 vaccine were administered to frontline healthcare workers at GW. A National COVID-19 Kickoff Ceremony was held at GW Hospital with GW Clinical Enterprise leadership hosting US Health and Human Services Secretary Alex Azar, US Surgeon General Jerome Adams, and Washington DC's Mayor Muriel Bowser for a national press conference including the administration of some of the nation's first doses of the vaccine to five frontline GW healthcare workers.

GW Clinical Enterprise leadership developed priority tiers to ensure the vaccine is distributed equitably among employees who wish to be inoculated. They are based on the risk of COVID-19 infection while on the job. GW Radiation Oncology faculty and staff received the vaccines throughout the second week. "This is truly the beginning of the end of the war on the pandemic, said Sharad Goyal, Professor & Chief of Radiation Oncology. "And now we have the tools to win this war and to save lives. We are ready to lead the way out of the pandemic," he said.

As vaccines from other manufacturers have arrived, GW Clinical Enterprise leadership continued to inoculate employees based on the tier system and risk level. The DC Department of Health began vaccination for the general public in mid-January 2021. The vaccines available to GW Radiation Oncology healthcare workers were the Pfizer-BioNTech and Moderna vaccines. Based on clinical trial evidence, the vaccines were shown to be 95% and 90% effective, respectively, at preventing symptomatic COVID-19 infections. Some of the common symptoms included swelling and redness at the site of injection, fatigue, headache, and other covid-like symptoms. However, most of the healthcare workers at Radiation Oncology reported mild symptoms and were pleased with being able to receive the vaccine.

GW Radiation Oncology employees were asked why they were getting the vaccine against novel coronavirus (COVID-19) and here is what some of them said:
"The power of modern science is absolutely amazing. I believe in the vaccine and received both doses. I would encourage everyone to receive the vaccine as soon as possible." - Dr. Huynh-Le, Radiation Oncologist

"I believe in the science behind the vaccine, and I want to do my part in protecting my family, friends, and my patients." - Steven Salama, RTT

"I know people are scared/unsure of the vaccine, but I feel that the pros outweigh the cons in this issue. Since receiving the vaccine, I experienced some fatigue, but after a few hours, I felt fine. I have friends in healthcare who had the same experience." - Miriam Felps, Administrative Assistant



# WHITE COATS FOR BLACK LIVES

## A Movement for Racial Justice in Medicine

As a community that cares for patients each day, we are first-hand witnesses to the toll of pervasive racism and bias on health equity and outcomes. The tragic murder of George Floyd has many of us grappling with personal pain and frustration, looking for an outlet to express our feelings in a constructive and coordinated way.

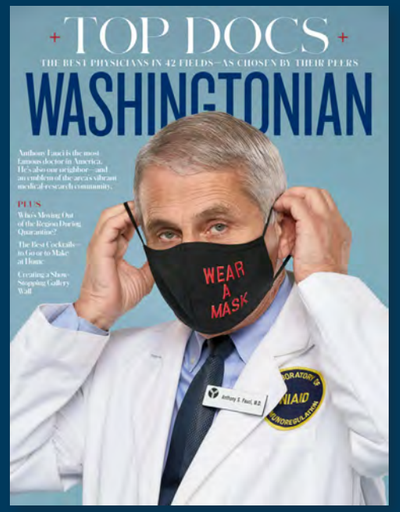

On Friday, June 5, 2020, at 12:40 pm, GW medical students, residents, physicians, faculty, healthcare providers, and staff stood in solidarity with health care professionals across the country in reflection and commitment to improve the health and safety of people of color through the White Coats for Black Lives event.

"White Coats for Black Lives culminated in 8 minutes and 46 seconds of silence in honor of George Floyd. That is the length of time a Minneapolis police officer pressed his knee into Floyd's neck on May 25 and his death sparked protests around the country," said Rana Kianni.


Members of the GW Radiation Oncology were deeply impacted by the show of support from across the medical school and the DC community. In the days following the event, GW Radiation Oncology faculty & staff reflected on the experience and how it will impact their involvement in addressing the public health crisis of racism.

"Many of the cancer patients we see at GW Cancer Center are black men and women. Some patients, particularly men of color, have a higher risk of certain cancers such as prostate cancer. The Radiation Oncology physicians and staff work very hard to make sure our black and minority patients have equal access to the highest quality cancer treatment available in the DC metropolitan area. We strongly support racial justice in medical care, scientific research, and medical education." - Dr. Rao, Radiation Oncologist

# IN RECOGNITION





Each year, The Washingtonian asks more than 13,000 doctors in D.C., Maryland, and Virginia to nominate a colleague in each of the 39 specialties. This year they received responses from more than 3,000 physicians. Nominating physicians receive an online survey only accessible to physicians with an active medical-license number registered in D.C., Maryland, or Virginia. Physicians with the highest votes in each category are designated, Top Doctors.

The prestigious award recognizes the best physicians in the region as chosen by their peers and is intended to help readers find top medical care in their communities. We are proud to recognize the 3 GW Radiation Oncology physicians named Washingtonian's Top Docs: Yuan James Rao, Martin Ojong-Ntui, and Sharad Goyal.

In addition, GW Radiation Oncology is pleased to announce that our physicians were named to Northern Virginia Magazine's "Top Doctors" of 2021 list in their recent February 2021 issue.

"The "Top Doctors" in some respects constitute an all-star list. We are incredibly pleased, but not surprised that our physicians were listed among the 'Top Doctors' for 2020," said Sharad Goyal, MD. To see a complete listing of Top Doctors, visit:
**washingtonian.com**
**northernvirginiamag.com**

"These prestigious designations are a testament to the hard work of our clinical and administrative staff, and their dedication to our mission of providing the best radiation therapy specialty care possible to the families of the District of Columbia, Maryland, and Virginia," said Sharad Goyal, MD.



## Congratulations on your retirement Dr. Sarfaraz!

On April 3, 2021, Dr. Mehrdad Sarfaraz is retiring after 4 years of service to George Washington University Hospital as Chief Medical Physicist. For those of you who haven't had the honor of working with him, here is a little bit about him…

Dr. Sarfaraz attended Arya-Mehr University of Technology in 1977 and received a B.S. in Physics. He completed a master's in physics at Michigan State University, and a master's in Radiological Sciences at University of Colorado Health Sciences Center in the years 1983 and 1986. In 2000, Dr. Sarfaraz completed his PhD in Radiological Sciences at George Washington University. Dr. Mehrdad started his career as an assistant professor at the University of Colorado but spent most of his career as the Chief Technology Officer of RadAmerica, MedStar Health between 2011 and 2017. Since 2017 until his retirement, Dr. Sarfaraz decided to "come home" as the Chief Medical Physicist at GW University Hospital.

Dr. Sarfaraz always wanted to be a physicist and considers it his major life achievement. He is Board Certified in Diagnostic Imaging (American College of Medical Physics, 1999) and Therapeutic Radiological Physics (American College of Radiology, 1999). He is a Clinical Associate Professor in Radiology at the George Washington University School of Medicine and Health Sciences. Dr. Sarfaraz has been a member of the American Association of Physicists in Medicine, the American Society for Therapeutic Radiology and Oncology, the Mid-Atlantic Chapter of AAPM, and the Iranian Association of Physicists in Medicine.

Dr. Sarfaraz is a compassionate, flexible leader with a calm spirit and a passion for medical physics. Outside of work, he enjoys hiking, biking, volunteering for multiple charities, and is an avid reader. We want to thank Dr. Sarfaraz for his hard work and diligence. Here is to a well-deserved and happy retirement!

## Congrats to our Nurse Practitioner, Diana Scully, on her new position!

We want to say a special thank you and congratulations to Diana Scully, our nurse practitioner, who has accepted a new position with the MFA in Alexandria, Virginia. She has dedicated the last 3 years to our department, but will be shifting her focus to Women's Health and working with Dr. David Weintritt, a breast surgeon. Diana Scully's compassion, reliability, and work ethic have been inspiring to us all. She provided high-quality patient care and was well loved by many patients. We wish Diana Scully the best of luck and the radiation oncology team will not be the same without her.

## Congratulations to Minh Huynh-Le! On the Road to Completion of the Boards!

We send our heartiest congratulations to Minh Huynh-Le, Assistant Professor at GW Radiation Oncology, who successfully passed Part 3 of her boards in therapeutic radiation oncology sponsored by the American Board of Radiology. Dr. Huynh-Le began her career with GW Radiation Oncology in September 2020 after completing her radiation oncology residency from University of California – San Diego in La Jolla, California. Since that time, she has been an integral member of GW Radiation Oncology.

Passing Parts 1-3 permits Dr. Huynh-Le to take the Part 4 oral exam of the American Board of Radiology Certification, which emphasizes clinical radiation oncology, clinical judgment, and communication. Given the COVID-19 pandemic, her oral exams were postponed from May 2021 to September 2021.

Everyone at GW Radiation Oncology is very proud of you, Dr. Huynh-Le. Well done! We wish you the best for your upcoming exam and thank you for being a part of our team!

## Sharad Goyal Named Interim Associate Center Director for Clinical Investigations at GW Cancer Center

The George Washington University (GW) Cancer Center announced that Sharad Goyal, MD, has been named interim associate center director for clinical research at the GW Cancer Center.

As interim associate center director for clinical research, Goyal will provide overall leadership for the clinical research efforts at the GW Cancer Center, engage cancer-related physicians to increase their clinical research productivity, evaluate the clinical research activities and trial portfolios within the various oncology disciplines, and provide medical and scientific leadership for the GW Cancer Center Clinical Trials Office.

Dr. Goyal said, “I’m honored to have the opportunity to serve on the GW Cancer Center executive committee and am excited to bring my expertise to the role and help create a vision for clinical investigations at GWCC.”

# GW JOINS THE AIDS MALIGNANCY CONSORTIUM

The widespread use of antiretroviral therapy has helped people with HIV live healthier, longer lives–but it also means an increased risk for developing cancer. The AIDS Malignancy Consortium (AMC) is a National Cancer Institute-supported clinical trials group founded in 1995 to support innovative trials for AIDS-associated malignancies. Now, GW University joined the AMC as one of 42 clinical trial sites in the United States, Africa, and Latin America.

Approximately 38 million people are infected with HIV, including 1.2 million in the United States. People living with HIV have an increased risk of developing cancer compared to the general population, and are more likely to die of cancer, interrupting otherwise healthy lives. This is due to a variety of causes, including long-term inflammation and an overtaxed immune system. In addition, HIV infections are concentrated in marginalized communities in the United States, primarily among people of color, who make up approximately 70% of new infections. "The AMC is the only organization worldwide solely dedicated to the study, treatment, and prevention of cancer in this group of people," says Sharad Goyal, MD, who serves as Principal Investigator at GW.

**Other faculty working with Dr. Goyal are:**

- Minh Huynh Le (Assistant Professor, Radiation Oncology)
- Matt Ng (Assistant Professor, Colorectal Surgery)
- Bindu Umapathi (Assistant Professor, Colorectal Surgery)
- Faysal Haroun (Medical Oncology)
- Punam Thakkar (Assistant Professor, Otolaryngology)
- Marc Siegel (Associate Professor, Infectious Disease)
- David Deimert (Associate Professor, Infectious Disease)

Dr. Goyal adds that, "The GW Cancer Center will work very well with the AMC given the current infrastructure and expertise of faculty and staff here with respect to the care of HIV- associated malignancies. The center is located in the heart of DC which has a remarkably high prevalence of HIV infection, and this is reflected in a high proportion of new diagnoses in the Cancer Center that are HIV positive. Additionally, from a basic science and translational perspective, GW houses a large scientific community focused on and dedicated to combatting HIV."



**GW Radiation Oncology provides medical education in a wide variety of forums at George Washington University. The faculty contributes to undergraduate and graduate-level education at many sites and to the continuing education of their professional colleagues.**

## Rotation for PA Students

The Department of Radiation Oncology has begun an elective for Physician Assistant students who attend George Washington University. Housed within the Department of Physician Assistant Studies, the Physician Assistant Program builds strong primary care and public health foundations among its students. The Physician Assistant Program currently offers two educational programs that culminate in the Master of Science in Health Sciences (MSHS, the "PA" degree) or a joint MSHS/MPH with the Milken Institute School of Public Health. Physician Assistants are highly qualified health professionals who are prepared to provide health care services with physician supervision. As a knowledgeable and skilled member of the health care team, a PA improves patients' access to health care and enhances physicians' effectiveness. We are very excited to have established this relationship!

## Medical Student Rotation (Rad 386)

During this 3rd and 4th year rotation in Radiation Oncology, students work with attending physicians who specialize in treatment of a variety of disease sites. Students actively participate in the work-up, evaluation, and development of radiation treatment recommendations for patients seen in consultation for both curative and palliative intent. Students learn basics of obtaining informed consent and participate in end-of-life or goals of care discussions. Students participate in patient simulations, treatment planning and dosimetry, and radiation treatments. They also participate in weekly departmental chart rounds, morning reports, procedures (brachytherapy or radiosurgery), and multi-disciplinary tumor boards. We would like to give a special thank you to the medical students that have rotated with us this past academic year: Ian Messing, Daniela Mirda, and Abigail Pepin.

**For more information on our educational programs, please contact Dr. Goyal:**
**shgoyal@mfa.gwu.edu**
**202.715.5051**

## Congratulations to our medical students during their Match!

It's one of the most thrilling and emotional days in the academic careers of medical students across the country. The annual tradition known as #MatchDay kicked off at GW SMHS on March 19. This is an important and exciting day for both students and training programs and represents the first glimpse at the future leaders of our field. We are very proud of Abigail Pepin and Akrita Bhatnagar, who for all their hard work and dedication, matched in Radiation Oncology! Abigail matched at the Hospital of The University of Pennsylvania while Akrita matched at Georgetown University. We wish both of them the best with their residency training!

# A PATIENT STORY - ***EMILY CHIANG***

Emily Chiang, a retired financial planner, took pen to paper to express her range of emotions: shock, bafflement, fear. Months before, she'd gone to the George Washington University (GW) Medical Faculty Associates (MFA) for a routine mammogram. She'd never had any issues. There were never any signs. But that day, something was different.

"It's called ductal carcinoma in situ (DCIS), meaning that it is stage zero," she recalls learning. "There were no symptoms. I had no idea."

Chiang's breast cancer had blossomed in her milk ducts, where two tumors required biopsies. Rachel Brem, MD, vice chair of radiology and director of the Breast Imaging and Intervention Center, performed the first. Denise Thigpen, MD, assistant professor of radiology, completed the second. When the results came in, the treatment plan was clear: surgery then radiation.

"I knew I could not avoid this process, and it was up to me on how to deal with it. So, I completely accepted it and made peace with this challenge," Chiang says. "I said to myself, I'm going to treat it as if I were Alice in Wonderland. It's going to be a learning experience for me, and it's going to be a growth and transformational experience for me. This happened for a reason, and I'm going to find out what that is."

The surgery to remove the cancerous areas occurred almost one month to the day after Chiang's initial check-up. On Jan. 22, 2021, she arrived at the GW MFA building on M Street in Washington, D.C., where Thigpen performed seed localization, a procedure where she placed sesame seed-sized metal pieces around the abnormal breast tissue.

> ***"I said to myself, I'm going to treat it as if I were Alice in Wonderland. It's going to be a learning experience for me, and it's going to be a growth and transformational experience for me. This happened for a reason, and I'm going to find out what that is."***

After the one-hour surgery, performed by Christine Teal, MD, director of the Breast Care Center, Chiang went home to heal. Two weeks later, she met Sharad Goyal, MD, director of the Division of Radiology. He, like the doctors before him, assured Chiang that she had done nothing to cause her cancer, a worry that had nagged at her since her diagnosis.

> ***"They treat you like a person. It's not a job for them. It's a calling."***

During her four weeks of radiation, an experience she instinctively felt would be unpleasant, Chiang was pleasantly surprised by how well Goyal and his team cared for her.

"They don't treat you as one of the patients going through the motions," Chiang explains, adding how touched she was when the team applauded for her after her final radiation treatment. "They treat you like a person. It's not a job for them. It's a calling."

It was early May 2021 when Chiang started processing her treatment journey on paper. She started from the beginning, marking the top of her paper with "My Experience Working with the GW Breast Care Center" and "My Experience Working with the GW Radiology Oncology Center."

She diligently chronicled her interactions with her doctors: "[Dr. Goyal] said: 'If you have to have cancer, what you have is by far the best outcome. Your prognosis is very good.' I immediately felt calmer. I needed to hear that in order to face the upcoming challenge."

She noted the evolution of her emotions from stark terror to acceptance; she hadn't even been able to say "cancer" for a couple of months after her diagnosis: "[One of the radiation specialists] said, 'You brighten up this office by being cheerful and positive. We will miss you. Can I give you a hug on Friday on your last day of treatment?' I said, 'Yes. Of course! I think I will miss all of you too. You all have been so good to me.' I teared up at that moment."

And she was thankful for a smooth, soothing process at the GW MFA: "I believe all of the staff know that the radiation treatment is hard on patients. Therefore, they try to be encouraging and positive."

She realized, she said, that she had taken her previous good health for granted. She lacked an appreciation of the physical and emotional suffering sick people endure. Then, she came to her larger conclusion: She had to warn other women to stay on top of their health.

"The best way to [explain my experience] is through stories," Chiang says. "If I could capture good stories, then readers could be more motivated to protect their health. This has to be a learning experience."

> ***"Then, she came to her larger conclusion: She had to warn other women to stay on top of their health."***

# PATIENT EXPERIENCE SURVEY

When a patient completes their final radiation treatment, we ask them to complete a confidential survey to rate their satisfaction. The feedback our patients provide is incredibly valuable as we continue to strive for improvements in quality patient care. We have evaluated the responses collected over the course of 10 months. Every response was entered into a database and analyzed. Here is what we found:

## What do you like best about our practice?

- "The personalized service and interactions. Makes one feel like you are really cared about as a person not a group of patients."
- "Staff is mostly prompt with patient schedule time. They are very informed about the level of care for each patient and the doctors are all informed."
- "The attentiveness of Ms. April and Ms. Judith is top notch. Dr. Goyal and Dr. Ojong are really great at listening and making the necessary adjustments for their patients."
- "Sirak is awesome, he made me feel safe and that my feelings were warranted and respected. Nurse Diana was also amazing. The people made a difference during my treatment."

## What are we doing especially well?

- "All processes are very well defined, no long waiting time. Medical team around Dr. Rao are very caretaking and always supportive. Dr. Rao is very experienced and trustful."
- "Honestly, the entire front desk staff felt like our family. You have created an environment of care and ease during this stressful time in our lives."
- "Managing the social distancing; keeping everybody happy."

## What can we do to improve?

- "Scheduling. And I think a better explanation of the effects of radiation on African American skin. It is not the same as sunburn, it's worse! I think that should be explained up front." - a breast cancer patient treated last year.
- "Explaining why techs change, why certain things are done (i.e., why marks and what black object is laid on ABD during radiation)."
- "Give out paperwork written with full details of how to care for yourself during & after treatment. I.e., nausea, headaches, drowsiness, etc."



95% of patients reported being "very satisfied" with **the level of care** received by providers and staff.

When asked, "How **attentive, caring, and understanding** do you feel our providers and staff are?" 98% selected "very attentive."

94% of patients reported "very thorough" **explanations and instructions for care** by providers and staff.

"Would you **recommend the GW Radiation Oncology group to your family and friends?**" 95% of patients selected "very likely."

# QUALITY IMPROVEMENT IN RADIATION ONCOLOGY

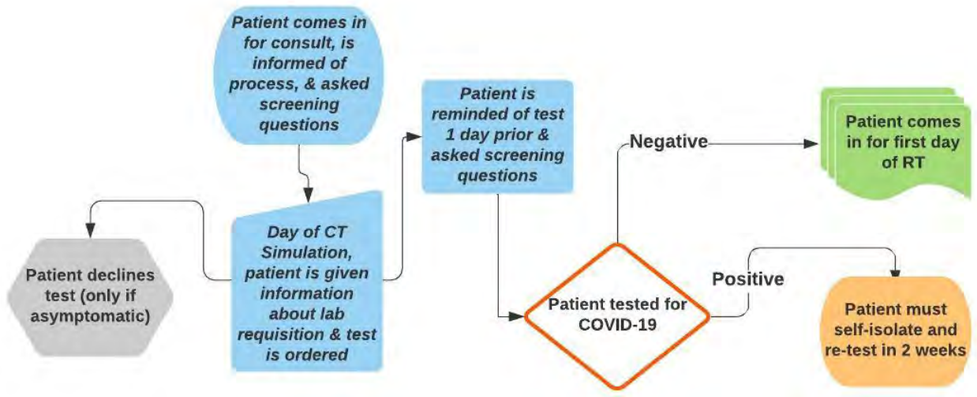
**Quality Outcomes:** Routine Pre-Radiation Treatment COVID Testing of Patients undergoing Radiation Therapy at GW Radiation Oncology

**Purpose:** The COVID-19 pandemic has provided many challenges in the health care field, specifically in the care of cancer patients. As soon as guidance was available in February 2020, our department has followed the CDC guidelines involving asking patients a set of screening questions related to COVID-like symptoms, maintaining social distancing, frequent hand washing, the use of masks, gloves, and eye coverings, and incorporating tele-medicine. GW Radiation Oncology began routine COVID testing on May 4, 2020, prior to starting Radiation Treatment (RT). After 9 months, we decided to review and analyze the COVID testing results, report the adherence to the testing program, and determine the necessity of routine COVID testing in our patient population.

**Background:** The pandemic has been especially difficult for our department because some cancer patients are at a higher risk for complications and mortality regarding COVID infection. Patients with cancer might be immunocompromised. Additionally, patients with cancer are often older (i.e., aged ≥60 years) with one or more major comorbidities, putting them at increased risk for COVID-19-related morbidity and mortality. Furthermore, they often have high levels of contact with the health-care system through daily treatment visits for radiation therapy. Our policy, developed in collaboration with the MFA and GWUH leadership, stated that if a patient tested positive, we would not initiate treatment until they were deemed to be non-infectious based on the CDC guidance, whose definition has continually evolved.

**Methods:** All patients undergoing radiation therapy from May 4, 2020, to January 31, 2021 (274 patients) were eligible for the quality project. Patients were seen first in consultation, either in-person or via tele-visit. Then, the patient presented in clinic for their CT simulation; at this point, it was discussed with them the need to undergo a COVID test 1-3 days before their radiation start date. The testing was not mandatory (except for symptomatic patients). Once a patient agreed to undergo a COVID test, an order for the test was submitted. These tests were conducted at GWUH and LabCorp. The patients were called 1 day before their test date as a reminder for their test. Additionally, they are asked the same set of screening questions related to any covid-like symptoms. Patients who tested negative started their radiation treatment, but positive patients were told to self-isolate and get re-tested in two weeks. The flow chart on the following page demonstrates the Pre-RT COVID-19 testing process.

## Pre-RT COVID-19 testing process:




**Results:** The 274 patients we analyzed received a total of 286 Pre-RT COVID tests. There were 12 patients (4.4%) who declined getting a COVID test prior to starting radiation treatment. The median number of days between the Pre-RT COVID test date and the RT start date was 2 days. The mean number of fractions of radiation was 16 and the median age was 63. Most of our patients were breast cancer patients (27%), followed by lung cancer patients (13%). Likewise, over half of our patients were female (57%). In addition, the racial demographics of our patients were Black (59%), White (27%), Latino/Hispanic (7%), Other (5%), Asian (2%), and the rest declined to say. Out of the 286 Pre-COVID tests, only 4 patients (1.4%) tested positive. One patient was asymptomatic and COVID positive (0.35%). Another patient received a presumptive positive result but tested negative twice after (0.35%). More importantly, the other two patients (0.70%) who tested positive for COVID were experiencing symptoms and had delays in starting treatment. Out of 125 COVID tests taken during RT, only 6 patients tested positive, with 4 out of 6 being symptomatic, and they all had treatment delays. So, the conversion rate from negative to positive during treatment was 2%. Unfortunately, we had one confirmed COVID-19 death of a lung cancer patient that occurred during radiation treatment.

**Scope of Issue:** During our routine covid testing, we discovered that the rate of positivity prior to radiation therapy was 1% (4 patients) and only one asymptomatic patient tested positive for the Pre-RT COVID test. The strict adherence to the CDC guidelines in collaboration with the protocol within our department allowed the rates of COVID infection to be extremely low. Therefore, the strengths of this quality improvement project included discovering a significantly low positivity rate among patients receiving radiation treatment. However, a limitation included having 12 patients refuse to undergo a Pre-RT COVID test. Therefore, we were not aware of their possible COVID infection. On the other hand, the data shows that race played a significant role in COVID infection, as 73% (8/11) patients who tested positive for COVID before and/or during treatment, were Black or Hispanic/Latino. The pandemic has disproportionately affected minority groups by increasing their risks of infection, morbidity, and mortality.

**Action Plan:** Effective February 1, 2021, we no longer required asymptomatic patients to undergo a COVID test prior to starting radiation treatment. Before each visit, our staff continues to follow strict protocol to call the patients and ask them a set of screening questions to determine if the patient is experiencing covid-like symptoms. Most of the staff and physicians have been vaccinated and we continue to maintain social distancing and follow the CDC guidelines. However, the follow-up plan consists of maintaining the COVID screening questions and tracking the symptoms of our patients, as the risk of being COVID positive and asymptomatic is 0.35%.



# RESEARCH ROUNDUP

**Researchers from GW Radiation Oncology are always on the lookout for groundbreaking research and improvements in radiation therapy.**

## ABSTRACTS

The following abstracts from the GW Radiation Oncology program were selected for presentation:

### Trends in guideline-adherent chemoradiation therapy for locally advanced cervical cancer before and after the Affordable Care Act

Presenter: Rehema Thomas
Authors: Thomas, R., Provenzano, D., **Goyal, S.**, Loew, M., Long, B., Lopez-Acevedo, M., & **Rao, Y.J.**
American Society of Radiation Oncology (ASTRO) Annual Meeting 2021

### COVID-19 testing trends: Pre-radiation and throughout cancer care

Presenter: Ian Messing
Authors: Messing, I., **Rao, Y.J.**, Scully, D., **Ojong-Ntui, M.**, **Goyal, S.**, & **Huynh-Le, MP**.
American Society of Radiation Oncology (ASTRO) Annual Meeting 2021

### Machine Learning Detects Pattern of Differences in Functional Magnetic Resonance Imaging (fMRI) data between Chronic Fatigue Syndrome (CFS) and Gulf War Illness (GWI).

Presenter: Destie Provenzano
Authors: Provenzano, D., Washington, S.D., **Rao, Y.J**., Loew, M., & Baraniuk, J. (Accepted as Oral Presentation, to be presented by DP, however the conference was canceled due to COVID-19)
International Association for Chronic Fatigue Syndrome/Myalgic Encephalomyelitis Conference 2020

### 3D Printing in Radiation Oncology: Development and Validation of Custom 3D Printed Brachytherapy Alignment Device and Phantom.

Presenter: Destie Provenzano
Authors: Provenzano, D., Aghdam, H., Gizem, C., **Goyal, S.**, Loew, M., & **Rao, Y.J.**
American Brachytherapy Society Annual Meeting 2021.

### A novel approach to accurate placement of skin HDR applicators using swimmers cap.

Presenter: Gizem Cifter
Authors: Cifter, G., Aghdam, H., **Rao, Y.J.**, & Sarfaraz, M.
American Association of Physicists in Medicine (AAPM) Spring Clinical Meeting 2021.

### Association of survival and local radiotherapy to the bladder versus chemotherapy alone for patients with metastatic urothelial carcinoma.

Presenter: Benjamin W. Fischer-Valuck
Authors: Fischer-Valuck, B.W., Patel, S.A., Gay, H.A., Christodouleas, J.P., Sargos, P., **Rao, Y.J**., Carmona, R., Picus, J., Roth, B.J., Kim, E., Arora, V., Zaghloul, M.S., Michalski, J.M., & Baumann, B.C.
Genitourinary American Society of Clinical Oncology (ASCO) Annual Meeting 2021.

### Adjuvant treatment for vulvar cancer with macro-metastatic inguinofemoral lymph nodes.

Presenter: Kathryn Denny
Authors: Denny, K., Sparks, A., Lopez-Acevedo, M., **Rao, Y.J.**, & Long, B.
Society of Gynecological Oncology Annual Meeting 2021.

### Incidence, mortality, and patterns of care for patients with multiple primary lower genital tract squamous cell carcinoma.

Presenter: Stephanie Wang
Authors: Wang, S., Sparks, A., **Rao, Y.J.**, Lopez-Acevedo, M.L., & Long, B.
Society of Gynecological Oncology Annual Meeting 2021.

## PUBLISHED MANUSCRIPTS: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**Huynh-Le, MP**, Fan, C.C., et al. PRACTICAL Consortium. (2021). Polygenic hazard score is associated with prostate cancer in multi-ethnic populations. *Nat Commun,* 12(1):1236. doi: 10.1038/s41467-021-21287-0.PMID: 33623038

**Huynh-Le, MP**, Tibbs, M.D., Karunamuni, R., Salans, M., Tringale, K.R., Yip, A., Connor, M., Simon, A.B., Vitzthum, L.K., Reyes, A., Macari, A.C., Moiseenko, V., McDonald, C.R., & Hattangadi-Gluth, J.A. (2021). Microstructural Injury to Corpus Callosum and Intrahemispheric White Matter Tracts Correlate with Attention and Processing Speed Decline After Brain Radiation. *Int J Radiat Oncol Biol Phys,* S0360-3016(20)34742-8. doi: 10.1016/j.ijrobp.2020.12.046.

**Huynh-Le, MP**, Karunamuni, R., Fan, C.C., Thompson, W.K., Muir, K., Lophatananon, A., Tye, K., Wolk, A., Håkansson, N., Mills, I.G., Andreassen, O.A., Dale, A.M., & Seibert, T.M.; PRACTICAL Consortium. (2021). Common genetic and clinical risk factors: association with fatal prostate cancer in the Cohort of Swedish Men. *Prostate Cancer Prostatic Dis*. doi: 10.1038/s41391-021-00341-4.

Jhawar, S.R., Palmer, J.D., Wang, S.J., Bitterman, D., Klamer, B., **Huynh-Le, MP**., Chung, C., Ohri, N., Stover, D.G., Lustberg, M.B., Mishra, S., Warner, J., Jabbour, S., & **Goyal, S.**; CCC19 Radiation Oncology Group. (2021). The COVID-19 & Cancer Consortium (CCC19) and Opportunities for Radiation Oncology. *Adv Radiat Oncol*, 6(1):100614. doi: 10.1016/j.adro.2020.10.026. Epub 2020 Dec 24. PMID: 33521393

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## CLINICAL TRIALS

20190769; R2810-ONC-1788 – A Randomized, Placebo-controlled, Double-blind Study of Adjuvant Cemiplimab versus Placebo after Surgery and Radiation Therapy in Patients with High-Risk Cutaneous Squamous Cell Carcinoma

EA2165 - A Randomized Phase II Study of Nivolumab After Combined Modality Therapy (CMT) in High-Risk Anal Cancer

R2810-ONC-1901 - A Phase 2 Study of Neoadjuvant Cemiplimab for Stage II TO IV (M0) Cutaneous Squamous Cell Carcinoma (CSCC)

NRG-GU006 – A Phase II, Double-Blinded, Placebo-Controlled Randomized Trial of Salvage Radiotherapy with or Without Enhanced Anti-Androgen Therapy with Apalutamide in Recurrent Prostate Cancer (BALANCE*)

A221505 - RT CHARM: Phase III Randomized Trial of Hypofractionated Post Mastectomy Radiation with Breast Reconstruction

EA3161 - A Phase II/III Randomized Study of Maintenance Nivolumab Versus Observation in Patients with Locally Advanced, Intermediate Risk HPV Positive OPCA

PR-001 - A Phase 2a Randomized Parallel Group Open-Label Multicenter Study to Assess the Safety and Efficacy of Different Schedule of RRx-001 in the Attenuation of Oral Mucositis in Patients Receiving Concomitant Chemoradiation for the Treatment of Locally Advanced Squamous Cell Carcinomas of the Oral Cavity or Oropharynx

NRG-GU007 - Randomized phase II trial of niraparib with standard combination radiotherapy and androgen deprivation therapy (ADT) in high-risk prostate cancer (with initial phase I)

S1802 - Phase III Randomized Trial of Standard Systemic Therapy (SST) Versus Standard Systemic Therapy Plus Definitive Treatment (Surgery or Radiation) of the Primary Tumor in Metastatic Prostate Cancer)

**To inquire about enrolling your patient in a clinical trial, please contact Dr. Goyal:**

**shgoyal@mfa.gwu.edu**

**202.715.5051**



# RADIATION AND NUTRITION

**A word from Mary Baginsky, GW Radiation Oncology's Clinical Dietician**

## Calories

It is not uncommon for radiation therapy to zap your energy and lessen your appetite. Many patients feel nauseous, which also dampens the desire to eat. Your body needs a certain amount of calories to maintain health and may require extra calories to regenerate healthy tissues.

## Protein

During radiation therapy, you need to get enough protein to keep your immune system working well and support the repair of body tissue. So, many patients require extra protein in their diet. A registered dietitian nutritionist might suggest, for example, that you add more milk, cheese and eggs to your daily eating plan. Or, increase your servings of beans, lean meats, fish and poultry.

## Vitamins and Minerals

These nutrients also help convert food into energy and support tissue repair. An eating style that includes a variety of foods is the best way to ensure you get the vitamins and minerals that your body needs. Always check with your health care provider before starting any new supplements. Some supplements may interact with your medicines or treatments.

## Mouth Sores and Throat Problems

Radiation therapy may irritate the lining of the mouth, throat and gums. This can make it harder to chew or swallow foods. Choosing foods that are soft and easy to chew may make it easier to get the nutrients you need. Consider moistening foods with sauces and broth, eating room-temperature food and drinking with a straw.

## Constipation and Diarrhea

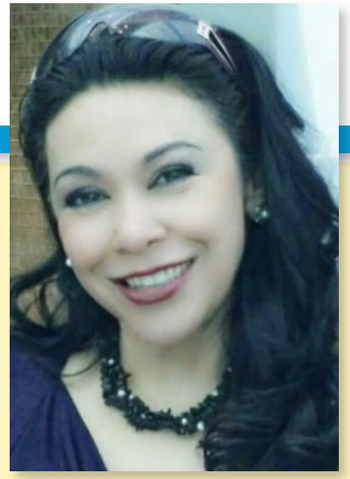
People who undergo radiation may experience changes in bowel habits. If the target area of the radiation is in the intestines or colon, it may cause irregular bowel patterns. Depending on your symptoms, you may be advised to increase or decrease your fiber intake. Dietary fiber is found in foods such as whole-grain breads, brown rice, and oatmeal, as well as beans, peas, lentils, vegetables and fruit.

## Special Nutritional Concerns

Changes in eating are common during periods of radiotherapy. Unlike chemotherapy, radiation treatments are targeted at the specific area of the body where the cancer is located. Thus, dietary recommendations can vary depending on the specific type of cancer. They may also relate to the side effects of other cancer treatments.

### Need Help Eating Well During Radiation Therapy?

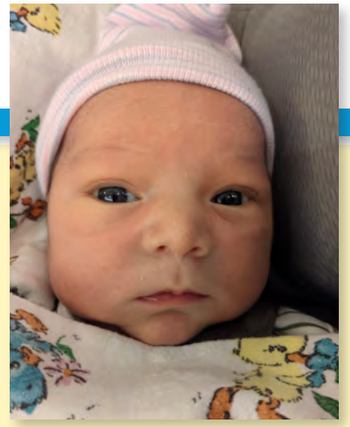
A personalized nutrition plan in an important part of cancer treatment, which is based on an individual's likes, dislikes, lifestyle, and symptoms. The GW Radiation Oncology team includes a Registered Dietitian who specializes in helping patients with cancer optimize their health and minimize side effects caused by cancer and treatment.



## Staff Highlight: Rana Kianni

*Manager & Chief Radiation Therapist*

Rana Kianni was born and raised in Iran until the age of 21. She was a medical student working as an x-ray technician until her and her family moved to Istanbul, Turkey to escape from the war in Iran. After spending 2 years in Turkey, Ms. Kianni and her family moved to the U.S. in 1988. Ms. Kianni worked as a cashier and attended Montgomery College for 2 years until transferring to GW to complete the radiation therapy program. She graduated in 1994 as an honor student. Ms. Kianni began working as a radiation therapist at both Georgetown and GW part-time. Soon after, she worked at Suburban Hospital. In 2001, she was hired as the chief radiation therapist at GW and has been working here for 20 years. In 2016, Ms. Kianni was also hired as the department manager. She has received recognition from GW's former CEO, Trent Crable, for her leadership abilities and has been involved in the development of Net presenter, the communications platform at GW. Ms. Kianni values the experiences she has gone through and being able to witness the amazing changes in the practice. She has two nieces who are her pride and joy. Outside of work, Ms. Kianni is an animal lover and looks forward to coming home to her cats. She enjoys cooking, hosting, dancing, and gardening, and has never been happier. We would like to thank Rana Kianni for her kindness, hard work, and dedication to the GW Radiation Oncology department.



## Congratulations to Dr. Rao and Destie on their new baby boy!

Dr. Yuan James Rao and Destie Provenzano welcomed their son, John Joseph Rao, on 5/31/21. We are all very excited about the new addition to the family!



# RADIATION ONCOLOGY

## Support Overview

Each year, medical and scientific advances offer new opportunities for the improvement of health for all Americans. Yet, a disproportionate burden of diseases such as diabetes, stroke, cancer, and HIV/AIDS, continues among minority and medically underserved populations. These contributors may include biological, environmental, socioeconomic, or cultural factors. The study of health disparities, which includes any condition disproportionately affecting one racial, ethnic or gender group, is a burgeoning, relatively young research field. Our faculty is engaged in innovative research that is needed to identify and understand the contributors to health disparities.

A product primarily of poverty and inequitable access to health care, health disparities are a staggering challenge. However, the problem goes deeper than income. The chronic stress caused by economic insecurity, discrimination and systematic racism is understood to have negative effects on the health of millions. Additionally, a growing body of evidence suggests the cellular stress caused by systemic trauma can have epigenetic-based detriments to the health of future generations. For a small number of diseases – including prostate cancer and triple-negative breast cancer – biological predispositions may play roles.

Our faculty are working to identify other ways to improve outcomes for groups disproportionately affected by cancer. Their research efforts range in scope from designing and implementing culturally appropriate health interventions, to improving access to care and clinical trials, to examining genetic factors that may explain differences in rates of aggressive cancers.

When you think of cancer disparities in Washington, DC, you think about that as an issue that spans translational research. The issue starts at the cellular-molecular level, with the actual testing and the understanding that biologists have of the pathology of cancer and diagnosis of cancer, all the way to the community uptake of that screening. The bulk of health disparities does not have any strong sort of biological component to it; but there is a subset – for instance, prostate cancer – which has a strong genetic component to it that accounts for some of the differences that we see when we compare Black men to White and Hispanic men.

Prostate cancer is the second most common cancer diagnosed in men worldwide, causing substantial morbidity and mortality. Prostate cancer screening may reduce morbidity and mortality, but to avoid overdiagnosis and overtreatment of indolent disease, it should be targeted and personalized. Genetic risk stratification is promising for identifying individuals with a greater predisposition for developing cancer, including prostate cancer.

The Black community isn't the only group of Americans who suffer from barriers to optimal cancer care. Health disparities must be addressed in every form of existence, whether they emerge from ethnicity, socioeconomic status, geographical location, sexual orientation or identity, education, language, mental health status, disability status, marital status, and many more. Yet, it is time to put together our strongest efforts to a large group with the highest need.

# Support GW Radiation Oncology's Groundbreaking Research and Educational Programs

**We are seeking additional funding that would enable us to focus on emerging and promising treatments focused on cancer disparities, such as:**

1. Genetic risk stratification to identify individuals with a greater predisposition for developing cancer
2. Using image-based and knowledge-based artificial intelligence algorithms to select patients best suited for cancer treatments
3. Studying immunotherapy, in which the body's own immune system is harnessed against cancer

We are also committed to creating new and enhanced educational opportunities for medical students, residents and post-doctoral trainees. With philanthropic support, we can provide unique training experiences to the next generation of radiation oncologists. These opportunities allow students access to funding for research endeavors as well as to special meetings, lectures, and a variety of academic pursuits.

Now is the time to re-invest in cancer research and education through our Discovery Fund. With your support, we will be able to capitalize on the many new and potentially life-saving developments in diagnostic tests and treatments for this disease, while simultaneously providing training to our students. Gifts to the Radiation Oncology Discovery Fund support important priorities like travel funds for trainees, visiting lecturers, lab supplies, and pilot research.

**Below are a few examples of philanthropic opportunities that would greatly benefit our mission of advancing research, education and our clinical enterprise within GW Radiation Oncology.**

- **Named Endowed Chair:** $2,500,000-5,000,000
- **Research and Education Fellowship:** $100,000- $250,000
- **Named Research Acceleration Grant:** $50,000
  *(Can be paid over 2 years. Although we do accept gifts at a lower level for this, a gift of this amount allows a donor to name it during the span of the fund.)*

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**Thank you for considering a philanthropic partnership. For more information about our program and ways to support, please contact Jessica Towns, Director of Development at:**

**jtowns@gwu.edu**
**443.465.7961**

**GW Radiation Oncology**
202.715.5097
cancercenter.gwu.edu/radiation-oncology

GW Cancer Center