



Department of Radiation Oncology

A Message from the Chair

Kenneth Rosenzweig, MD, Professor and Chair, Department of Radiation Oncology

As health care workers, seeing our patients and the broader community continue to get vaccinated, we hope that we are approaching the end of the worst of the pandemic. We still don't know what the long-term effects of COVID-19 will be on medicine in general, and cancer care specifically. But the close interaction between our patients and the Radiation Oncology team will always be at the core of what we do. In this issue, you will read about how our Department is touching the lives of the people we care for through virtual interactions, music therapy, and innovative tools to assess patient distress. We continue to provide top-notch educational opportunities for our physicians, physicists, therapists, and administrative staff. You will even read about how one of our physicians was instrumental in the development of the COVID-19 vaccine during his work as a PhD student. And please don't forget to include Mount Sinai Radiation Oncology when you nominate programs on [Doximity.com](https://www.doximity.com)! Best wishes for a great (and healthy) summer.



Nominate Mount Sinai Radiation Oncology Residency Program on Doximity, [Vote Today!](#)

Choosing a residency program is one of the biggest decisions new physicians face in their careers. Doximity.com is the largest online social networking service for physicians in the country. The Doximity Residency Navigator combines resident feedback with objective data on residency programs, and "alumni outcomes" developed by analyzing the career paths of all U.S. physicians. You can vote on Doximity for Mount Sinai's Radiation Oncology Residency Program through the Nomination Survey. Eligible participants can now access the survey through their [Doximity account](#), surveys close on June 4th, 2021.

Staff Updates

We are pleased to welcome the following new team members to the Department of Radiation Oncology:

- Alex Ashley – Senior Radiation Therapist*
- Nana Blake – Per Diem Radiation Therapist
- Brittany DeLaurentis – Nutritionist
- Sabine Feuilloley – Clinical Research Assistant
- Jibin Joseph – Senior Radiation Therapist*
- Jennifer Lordi Calleo – Staff Radiation Therapist
- Rodney Michel – Lead Radiation Therapist*
- Taylor Molloy – Senior Radiation Therapist*
- Grace Orekoya – Nurse Practitioner
- Mark Roytman – Senior Radiation Therapist
- Andrew Ruiz – Social Worker
- Nusrat Zahan – Patient Service Representative

*We congratulate our team members on their recent promotions.

Congratulations



Congratulations Cynthia Vivians for celebrating 20 years at Mount Sinai.

Faculty Updates

Michael Buckstein, MD, PhD, Promoted to Vice Chair for Education



Michael Buckstein, MD, PhD

Michael Buckstein, MD, PhD, Associate Professor, Department of Radiation Oncology at the Icahn School of Medicine at Mount Sinai, has been appointed Vice Chair for Education for the Department of Radiation Oncology. Dr. Buckstein earned his undergraduate degree from Yale College and his MD and PhD degrees from the Perelman School of Medicine at the University of Pennsylvania. He completed his residency in radiation oncology at Mount Sinai and has been on the faculty since 2013. Since 2017, Dr. Buckstein has been the Residency Program Director and has worked steadily to improve the educational opportunities for residents and the entire department. His efforts were especially evident in the past few months as he successfully led the department to attract two superb medical students in a very challenging year. Dr. Buckstein is also on the editorial board as a GI specialist for the International Journal of Radiation Biology Physics and Practical Radiation Oncology.

In addition to his numerous accomplishments in the field of radiation oncology, Dr. Buckstein's research as a PhD student helped form the basis of the COVID-19 mRNA vaccine in use today. His mentor, Katalin Kariko, PhD, was recently profiled in The New York Times, and their 2005 publication established the science that is currently used to create the vaccine. Find the full article here: <https://www.nytimes.com/2021/04/08/health/coronavirus-mrna-kariko.html>

Diversity, Equity and Inclusion

Equity & Inclusion Committee

In an effort to continue the conversation to dismantle racism in society and in the workplace, and in order to foster a community of equity and inclusion, in October 2020, the Department of Radiation Oncology at the Icahn School of Medicine at Mount Sinai founded a Diversity and Inclusion Committee. Led by a diverse group of team members across the Health System, the Diversity and Inclusion Committee includes radiation oncology staff committed to supporting an environment free from bias and ensure all feel welcome, safe, valued, and heard. An initial goal of the group defined a True North statement: “Yes you belong, we are one!” Now, the group meets monthly as a space for open discussion, to foster relationships, and support an equitable work and patient care environment.

Black History Month

February is Black History Month, a time when the United States reflects on the contributions Black Americans have made throughout the country’s history. Black History Month has been celebrated in the United States for more than a century. Keith Edwards, RT(T), Mount Sinai Hospital Assistant Chief Radiation Therapist and co-leader of the Equity and Inclusion Committee, was interviewed by Mount Sinai and posted on their Instagram page, sharing what Black History Month means to him. “Black History Month is a time to recognize the cultural and historical contributions of Black people in this country. Black history is American history and American history is Black history. Black history is needed and necessary to create a more inclusive world.”

Celebrating Our Diversity

Our Department is composed of a team of employees who speak more than 20 languages and is from more than 18 countries. In an effort to celebrate our diversity, a key strength in our Department, we highlight various cultures and staff in our newsletters. We look forward to engaging with our colleagues in new ways, learning from each other and growing as a department.



Cultural Highlight with Mehak Ijaz, BS, RT(T), Staff Radiation Therapist at Mount Sinai Hospital

I was born in the United States. My parents emigrated from Pakistan in the '90s and mainly spoke Urdu, the official national language of Pakistan, in our home. There are over 15 major ethnic groups in Pakistan, over 70 different languages, and four main provinces: Punjab, Balochistan, Sindh, and Khyber Pakhtunkhwa. My mother is from the city Narowal and my father was from the city Gujranwala, both within the province of Punjab, and so they sometimes spoke their regional native language Punjabi as well.

What are some traditions, celebrations, or rituals your family participates in?

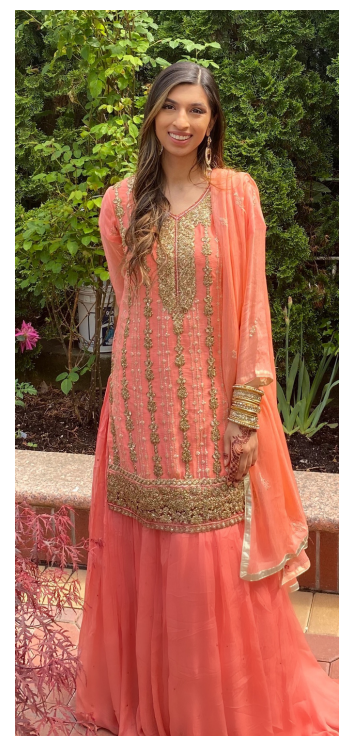
The state religion in Pakistan is Islam so Pakistani culture is heavily tied to Islamic practices and beliefs. Ramadan is widely observed by Muslims worldwide and is prioritized in Pakistan. It is the ninth month of the Islamic lunar calendar, in which fasting, prayer, and reflection take precedence. Eid-ul-Fitr is a holiday that marks the end of Ramadan, where celebratory meals are had with family and friends. There are two annual Eid holidays; the other is Eid-ul-Adha, which marks the willingness of Abraham to sacrifice his son as an act of obedience to God's command. In commemoration of God's intervention of providing a lamb to sacrifice instead, an animal is sacrificed ritually. The animal is shared in three equal parts—for family, for friends, and for the poor. My personal favorite tradition is the night before Eid, called Chaand Raat (The Night of the Moon). This night is a time of celebration where city streets have a festive look with brightly decorated street markets open late into the night. Family and friends gather in streets to spot the new moon, women decorate their hands with mehndi (henna), and people do last rounds of Eid shopping.

What is your favorite cultural celebration or something that makes your culture unique?

In college, I was part of Stony Brook University's Bhangra dance team. Bhangra is a type of traditional dance with energetic movements to the beat of a dhol (drum). This dance originated from male Punjabi farmers during the harvesting season and later became more structured. It is now commonly performed at weddings, and within the United States many colleges host annual Bhangra competitions. Traditionally, Bhangra holds a deep sense of masculine values, showcasing the expression of vigor, strength, and stamina, but recently many second-generation South Asian women in the United States have begun to connect to their culture through Bhangra as well.



Pakistan



Mehak Ijaz, BS, RT(T) and Stony Brook University Bhangra dance team

Cancer Support Services

Members of the Cancer Support Services team are available to help patients manage the physical symptoms, emotional concerns, and spiritual issues they may experience during treatment. Mount Sinai social workers, dieticians, chaplains, peer-support specialists, pain and palliative experts, music therapists, integrative therapists, artists in residence, and psychiatrists form a dedicated group of clinicians specialized in supportive care.



Virtual Offerings

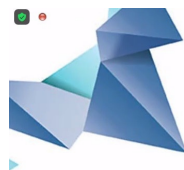
Due to COVID-19, Cancer Support Services have gone virtual, offering free support and wellness programs through Zoom. Zoom is an online platform which is accessible via phone, laptop, desktop, and tablet. Staff remains committed to providing patients with safe support. Cancer support programming includes: weekly yoga, meditation, knitting and journaling/writing workshops, and more. Cancer Support Services brochures are available across our departments. In addition, visit www.mountsinai.org/care/cancer/about/support updates on upcoming programs or search the handle @mshscancersupportservices on Instagram.

Professional Presentations

Mount Sinai Radiation Oncology Team Members Collaborate to Create Virtual Education Tool Presented at RTi3

In March 2021, Maria Dimopoulos, MBA, RT(T), Radiation Therapy Program Director, presented virtually at Canada's premier radiation therapy conference, RTi3. Hosted by the University of Toronto, the annual conference is committed to advancing the science and practice of radiation therapy, showcasing the latest research and clinical innovations. This presentation highlighted a web based virtual linac, used to enhance radiation therapy education. The Department of Radiation Oncology utilizes a virtual linac software for treatment plan dry run and collision check. With collaboration and support from Ren-Dih

Sheu, PhD, Associate Professor at the Icahn School of Medicine at Mount Sinai, the platform was developed to support radiation therapy student education. Now, the tool is used in student education prior to joining the clinical environment.



THE INNOVATION

Web based JavaScript/WebGL
+
QA software for collision check
+
Enhanced features
+
De identified patients
=
Solution for radiation therapy education

RTi3 INQUIRE INSPIRE INNOVATE CAMRT ACTRM

The slide features a central image of a virtual linac machine. To the left and right of the machine are two vertical panels containing text and data, likely representing software interfaces. The slide is framed by a light blue border.

Physics Updates

The Mount Sinai Department of Radiation Oncology is happy to share new procedures available to patients across the Health System. We thank our physics staff for their support in these technological advancements and our multidisciplinary team of radiation oncologists, supervisors, and radiation therapists for their support in protocol development.

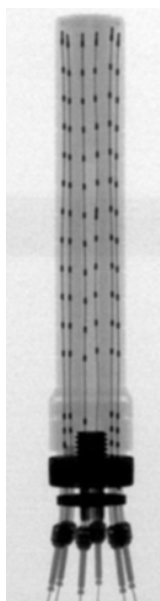
- Deep Inspiration Breath Hold (DIBH) offered at Mount Sinai West
- Stereotactic Radiosurgery (SRS) offered at the Blavatnik Family - Chelsea Medical Center at Mount Sinai
- Varian multi-channel applicator for gynecological high dose rate brachytherapy offered at the Blavatnik Family - Chelsea Medical Center at Mount Sinai
- Elekta Vennezia applicator for gynecological high dose rate brachytherapy at The Mount Sinai Hospital
- Elekta high dose rate unit Flexitron at The Mount Sinai Hospital
- Elekta 30 and 45 degree tandem and ring at The Mount Sinai Hospital
- Total Skin Electron Beam (TSEB) at The Mount Sinai Hospital
- GammaTile for brain Intraoperative Radiation Therapy (IORT) at The Mount Sinai Hospital



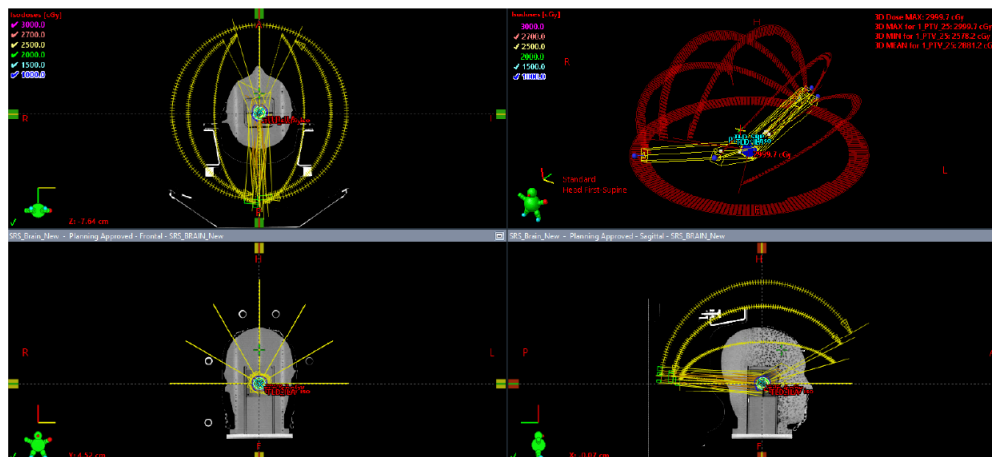
Elekta Vennezia applicator for GYN-HDR



Q Fix training for simulation at Mount Sinai Downtown



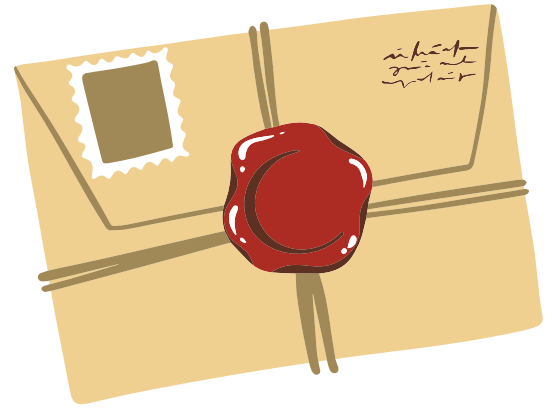
Varian multi-channel applicator for GYN-HDR



Stereotactic radiosurgery quality assurance

A Heartfelt Appreciation

A Letter from a Mount Sinai Radiation Oncology Patient



Good Morning,

I wish to acknowledge the wonderful care and treatment I received at the hands of Dr. Sheryl Green and her team of professionals at The Mount Sinai Hospital facilities.

I was introduced to Dr. Green in 2019 when Dr. Isabelle Germano referred me to her for stereotactic radiosurgery for a benign pituitary adenoma. I started the process to have surgery in 2019 but decided against it due to anxiety. After an MRI in 2020 confirmed the small incremental growth of the tumor, I decided to undergo surgery. I had been consulting with neurosurgery teams at multiple hospitals. Ultimately I decided to have the surgery with the team of Dr. Germano and Dr. Green because they made me feel comfortable with the procedure after answering all my questions and demonstrating via video, in person consultation, and video hookup during COVID 19. Dr. Green was a calm and reassuring presence when I was in doubt. During a video appointment, I was on the verge of changing my mind to have surgery when the distance between the tumor and my optic nerve was 3mm based on the image measurements. I told her I wanted to sleep on it. A few days later, I was ready to move forward after Dr. Green reassured me of the safety and precision of the surgery. I trusted her experience, knowledge, and expertise.

On Thursday 4, February, 2021, I underwent stereotactic radiosurgery at The Mount Sinai Hospital with the confidence that this was the best team for me. I also wish to thank Administrative Assistant Kelly Rivera for scheduling, modifying, and reminding me of my appointments; Dr. Carlos Rodriguez-Russo for being present and available to answer my questions; nurse Melissa Brito for making sure I had the information and medication I needed for discharge; and the therapists, technicians, and the music of my choice to calm my nerves. I thank all the staff I did not meet but were necessary for me to have the successful medical experience.

The team and staff of Dr. Sheryl Green and Dr. Isabelle Germano are great representatives of the quality and care provided by your hospital.

THANKYOU

Professional Development and Achievement

Abby Baruwa, MS, RT(T), Accepted to Mount Sinai Health System Administrative Fellowship Program



Abby Baruwa, MS, RT(T)

Abby Baruwa, MS, RT(T), was accepted to the Mount Sinai Health System's Administrative Fellowship Program. This program provides Master's-prepared, underrepresented minorities with rotational, project-based, and experiential learning opportunities in health care and higher education administration over the course of two years. The goal is to develop a diverse talent pipeline through which we promote individuals in the early stages of their careers into leadership roles within the organization. Administrative fellows receive a full-time position within the Health System.

Ms. Baruwa will be working at two sites during her fellowship. At the first site, Mount Sinai Beth Israel, she will be working with Paul Zucker, Vice President of Ambulatory Operations; Elizabeth Sellman, Chief Operating Officer, Mount Sinai Beth Israel; and Christopher Berner, Vice President of Human Resources, Mount Sinai Beth Israel. At the second site, New York Eye and Ear Infirmary of Mount Sinai, she will work under the guidance of Christopher Spina, Senior Vice President and Chief Operating Officer, NYEE.



Donielle Canizares, RT(T)

Donielle Canizares, RT(T) Graduates from Mount Sinai Emerging Leaders Program

Emerging Leaders is a six-month professional development program for aspiring leaders across Mount Sinai who have strong leadership potential as well as a desire to learn and grow within the Health System. This program offers a pathway for professional growth by building key skills and sharpening leadership-related competencies through project-based, experiential learning. Congratulations to senior radiation therapist and Emerging Leader Graduate Donielle Canizares, RT(T).

Exceptional Care for Patients with Thoracic Malignancies

The Mount Sinai Health System was honored by the International Association for the Study of Lung Cancer (IASLC) as the 2020 North American recipient of the IASLC Cancer Care Team Award (CCTA). The CCTA recognizes a single institution in North America, Europe, Latin America, and Asia/Rest of the World that provides exceptional care for patients with lung cancer and thoracic malignancies. Of the four teams, Mount Sinai was selected as the overall winner.

“Oftentimes delivery of patient care is at its best when multidisciplinary team members offer the patient seamless and informed communication, as well as an individualized treatment plan based on not just the patient’s needs but the patient’s wishes,” said Fred Hirsch, MD, PhD, Director of the Center of Excellence for Thoracic Oncology.



Team members: Andrea Wolf, MD; Marissa Senise, NP; Jorge Gomez, MD; Jessica Fernandez, PA; Thomas Marron, MD, PhD; Stephanie Lehrman LCSW; Kenneth Rosenzweig, MD

Kimberly Smith, MPA, FACHE, Earns Top Health Care Management Credential



Kimberly Smith, MPA, FACHE

Kimberly Smith, MPA, FACHE, Administrative Vice Chair, Department of Radiation Oncology at Mount Sinai Health System, recently became a Fellow of the American College of Healthcare Executives, the nation’s leading professional society for health care leaders. “The health care management field plays a vital role in providing high-quality care to the people in our communities, which makes having a standard of excellence promoted by a professional organization critically important,” says Deborah J. Bowen, FACHE, CAE, President and CEO of ACHE. “By becoming an ACHE Fellow and earning the distinction of board certification from ACHE, health care leaders demonstrate a commitment to excellence in serving their patients and the community.” ACHE sets

the benchmark for board certification in health care management. Earning the Fellow credential provides recognition as a leader in health care management, demonstrates competency in all areas of health care management, and signifies a lifelong commitment to change and improvement.

Ramona Tirado Earns GME Certification



Ramona Tirado, C-TAGME

Ramona Tirado, C-TAGME, Residency Program Coordinator, Department of Radiation Oncology at Mount Sinai Hospital, has satisfied the requirements to become a Certified Training Administrator for Graduate Medical Education. The National Board for Certification of Training Administrators in Graduate Medical Education (TAGME) was established to advance the profession of those who manage residency and fellowship programs to ensure a comprehensive level of services, training, and knowledge for physicians-in-training. Achieving the C-TAGME credential is accomplished through a combination of experience, continuous education, and successfully earning a passing assessment result.

Samantha Skubish, MS, RT(R)(T) Joins ASRT Practice Standards Council



Samantha Skubish, MS, RT(R)(T)

Samantha Skubish, MS, RT(R)(T), has been appointed to serve on the American Society of Radiologic Technologists (ASRT) Practice Standards Council 2021-2024. The ASRT is the national professional society for radiation therapy and medical imaging professions. The primary responsibilities of the Practice Standards Council include developing and maintaining Practice Standards for medical imaging and radiation therapy, recommending changes or additions to be approved by the House of Delegates, and reviewing practice-related position statements for relevancy and inclusion. Serving as a national voice for the radiation therapy profession, Ms. Skubish will research and review practice issues as they relate to radiation therapy and recommend action.

Recent Publications

Andrew Rossetti, MMT, LCAT, MT-BC, Published in Red Journal



Andrew Rossetti, MML, LCAT, MT-BC

In February 2021, Andrew Rossetti, MMT, LCAT, MT-BC, music therapist, published an editorial in International Journal of Radiation Oncology, Biology, Physics titled “The Music in ‘Question’ in Research and Practice.” The article shares the benefits of music therapy and concludes that more research is needed to examine and fine tune music therapy interventions to address not just anxiety during radiation therapy treatment but a number of biopsychosocial concerns specific to this environment.

Anthony Nehlsen, MD, Published in *Advances in Radiation Oncology*



Anthony Nehlsen, MD

In June 2020, Anthony Nehlsen, MD, published an article in *Advances in Radiation Oncology* titled “Triple Negative Breast Cancer in a Male to Female Transgender Patient: A Case Report and Literature Review.” The article, prepared in collaboration with Sheryl Green, MBBCh, discusses the growing number of transgender patients seeking medical care in the United States, barriers to care, and a case study of a transgender female patient who developed triple negative carcinoma of the left breast who was treated with neoadjuvant chemotherapy followed by lumpectomy with sentinel lymph node biopsy and adjuvant radiation therapy. Find the entire article here: [www.advancesradonc.org/article/S2452-1094\(20\)30175-5/fulltext](http://www.advancesradonc.org/article/S2452-1094(20)30175-5/fulltext)

Deborah Marshall, MD, MAS, Published in the *Red Journal*



Deborah Marshall, MD, MAS

In August 2020, Deborah Marshall, MD, MAS, published an article in the *International Journal of Radiation Oncology, Biology, Physics* titled “Trends in Financial Relationships between Industry and Radiation Oncologists Versus Other Physicians in the United States from 2014 to 2018.” The article, prepared with support from Kenneth Rosenzweig, MD, discusses a retrospective, population-based cohort study of practicing U.S. radiation oncologists (ROs) versus medical oncologists (MOs) and hospital-based physicians (HBPs) in 2014 matched to general (nonresearch) payments between 2014 and 2018. It concluded that industry payments to ROs have become more common since OP’s inception, while becoming less common for MOs and HBPs. Payments to ROs and MOs have become more frequent and of modestly increasing value compared with other HBPs, for whom the value is decreasing. No large changes in the nature of relationships were seen in ROs. Increased engagement with financial conflicts of interest is needed in radiation oncology. Find the entire article here: [https://www.redjournal.org/article/S0360-3016\(20\)34138-9/fulltext](https://www.redjournal.org/article/S0360-3016(20)34138-9/fulltext)

Eric Lehrer, MD, Published in *ctRO*



Eric Lehrer, MD

Eric Lehrer, MD, and Stanislav, MD, along with radiation oncologists from New York Proton Center published an article in *Clinical and Translational Radiation Oncology* titled “Optimal timing of radiotherapy in high risk prostate cancer: Do missed days matter?” High-risk prostate cancer is associated with poorer overall survival and biochemical control compared to more favorable risk groups. External beam radiation therapy (EBRT) is widely used; however, outcomes data are limited with respect to time elapsed between diagnosis and initiation of EBRT. In this hypothesis-generating study, prolonged treatment delays and missing three or more EBRT treatments was associated with poorer OS in patients with high-risk adenocarcinoma of the prostate. Find the full article here: [https://www.ctro.science/article/S2405-6308\(20\)30093-8/fulltext](https://www.ctro.science/article/S2405-6308(20)30093-8/fulltext)

Karyn Goodman, MD, MS, and Anthony Nehlsen, MD, Published in *Journal of Surgical Oncology*

Karyn Goodman, MD, MS, and Anthony Nehlsen, MD, published an article in *Journal of Surgical Oncology* titled “Controversies in Radiotherapy for Pancreas Cancer.” The management of pancreatic adenocarcinoma remains an area of controversy and ongoing discovery. Despite advances in surgical and radiation techniques, as well as chemotherapeutic agents, outcomes of patients diagnosed with this devastating malignancy remain poor. The article aims to review the available literature evaluating the efficacy of adjuvant, neoadjuvant, and definitive radiation therapy. We will also highlight areas of ongoing research efforts being carried out to improve outcomes in this patient population. Find the full article here: <https://onlinelibrary.wiley.com/doi/full/10.1002/jso.26313>

Karyn Goodman, MD, MS, Published in *JCO Precision Oncology*



Karyn Goodman, MD, MS

Karyn Goodman, MD, MS, co-authored an article in *JCO Precision Oncology* titled “Designing Dose-Finding Phase I Clinical Trials: Top 10 Questions That Should Be Discussed with Your Statistician.” In recent years, the landscape in clinical trial development has changed to involve many molecularly targeted agents, immunotherapies, or radiotherapy, as a single agent or in combination. Given their different mechanisms of action and lengths of administration, these agents have different toxicity profiles, which has resulted in numerous challenges when applying traditional designs such as the 3 + 3 design in dose-finding clinical trials. Novel methods have been proposed to address these design challenges such as combinations of therapies or late-onset toxicities. However, their design

and implementation require close collaboration between clinicians and statisticians to ensure that the appropriate design is selected to address the aims of the study and that the design assumptions are pertinent to the study drug. This article presented guidelines for appropriate questions that should be considered early in the design stage to facilitate the interactions between clinical and statistical teams and to improve the design of dose-finding clinical trials for novel anticancer agents. Find the full article here: <https://ascopubs.org/doi/full/10.1200/PO.20.00379>

Kunal Sindhu, MD, Published in *Patient Education and Counseling*



Kunal Sindhu, MD

Kunal Sindhu, MD, published an article in *Patient Education and Counseling* titled “The Phone: Communication in the Age of COVID-19.” *Patient Education and Counseling* is an interdisciplinary, international journal for patient education and health promotion researchers, managers, and clinicians. Dr. Sindhu shares his personal experience during the COVID-19 pandemic in New York City as a radiation oncology resident. The article discusses his experiences updating families over the phone during COVID-19 and how these calls will impact his practice as a radiation oncology resident in the future. Find the full article here: <https://www.sciencedirect.com/science/article/pii/S0738399121001117>

Mount Sinai Radiation Oncology Published in

Journal of the Sciences and Specialties of the Head and Neck

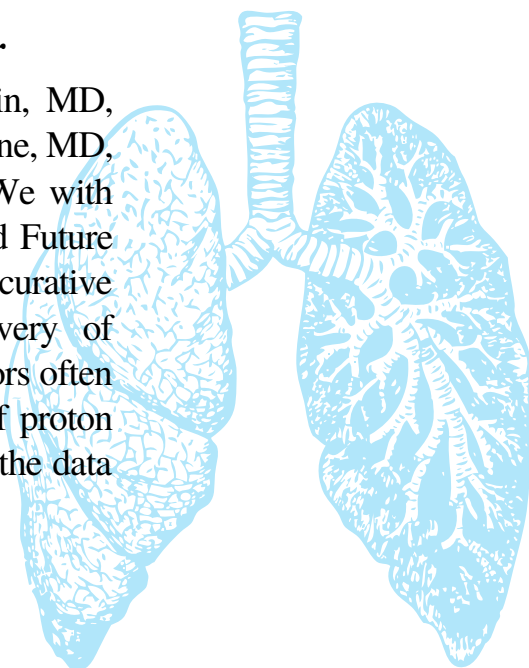
Andrew Smith, MD, along with Eric Lehrer, MD, Vishal Gupta, MD, Sonam Sharma, MD, Jerry Liu, MD, and Richard Bakst, MD, published an article in *Journal of the Sciences and Specialties of the Head and Neck* titled “Redefining Risk of Contralateral Cervical Nodal Disease in Early Stage Oropharyngeal Cancer in the Human Papillomavirus Era.” The optimal extent of surgery and/or radiation to the contralateral lymph node region is unknown in early-stage human papillomavirus (HPV)–related oropharyngeal squamous cell carcinoma (OPSCC). To investigate the pathologic incidence of and risk factors for contralateral nodal disease (CND) in cT1-T2 HPV-related OPSCC treated with transoral robotic surgery (TORS) and bilateral neck dissection (BND), the records of 120 patients were reviewed. HPV-related OPSCC that are cN0-N1 have exceedingly low rates of pCND. Well-lateralized HPV-related BOT primaries with limited clinical nodal disease may be candidates for ipsilateral only treatment. Find the full article here: <https://onlinelibrary.wiley.com/doi/full/10.1002/hed.26607>

Mount Sinai Radiation Oncology Published in *Lung Cancer*

Stansilav Lazarev, MD, Kenneth Rosenzweig, MD, Robert Samstein, MD, PhD, Lucas Salgado, MD, along with Robert Press, MD, Charles Simone, MD, and others published an article in *Lung Cancer* titled “Where Are We with Proton Beam Therapy for Thoracic Malignancies? Current Status and Future Perspectives.” Radiation therapy plays an important role in the curative treatment of a variety of thoracic malignancies. However, delivery of tumoricidal doses with conventional photon-based RT to thoracic tumors often presents unique challenges. The article examines the evolving role of proton beam therapy in the treatment of thoracic malignancies and evaluates the data supporting its use.

Find the full article here:

<https://www.sciencedirect.com/science/article/pii/S0169500220307522>



Mount Sinai Radiation Oncology Publish on

Proton and Heavy Particle Intracranial Radiosurgery

Eric Lehrer, MD, Kunal Sindhu, MD, and Stanislav Lazarev, MD, co-authored an article in *Biomedicine* titled “Proton and Heavy Particle Intracranial Radiosurgery.” Stereotactic radiosurgery (SRS) involves the delivery of a highly conformal ablative dose of radiation to both benign and malignant targets. This has traditionally been accomplished in a single fraction; however, fractionated approaches involving five or fewer treatments have been delivered for larger lesions, as well as lesions in close proximity to radiosensitive structures. The clinical utilization of SRS has overwhelmingly involved photon-based sources via dedicated radiosurgery platforms or specialized linear accelerators. While photon-based methods have been shown to be highly effective, advancements are sought for improved dose precision, treatment duration, and radiobiologic effect, among others, particularly in the setting of repeat irradiation. Particle-based techniques (e.g., protons and carbon ions) may improve many of these shortcomings. The authors note prospective studies are needed to further validate the safety and efficacy of this treatment modality. Find the full article here: <https://www.mdpi.com/2227-9059/9/1/31/htm>

Mount Sinai Radiation Oncology Sensitive Practice Tool Enhances Patient Experience

In November 2020, Sheryl Green, MBBCh, Julie Schnur, PhD, Clodagh Starrs, PgC, RT(T), and Kevin Minassian, BS, RT(T), published an article in *International Journal of Radiation Oncology, Biology, Physics* titled “A Trauma-Informed Sensitive Practice Tool to Enhance Quality of Care for Breast Radiotherapy Patients.” Research shows that for sexual violence survivors, cancer care procedures can be triggering and retraumatizing due to perceived similarities to the original abuse (e.g., both involve features like undressing and touch). To help all women, and in particular sexual violence survivors, feel safer, more empowered, and more comfortable during breast cancer radiotherapy (RT), the group designed and implemented a sensitive practice tool (SPT) informed by guidelines for working with sexual violence survivors in health care. Find the full article here: [https://www.redjournal.org/article/S0360-3016\(20\)32886-8/fulltext](https://www.redjournal.org/article/S0360-3016(20)32886-8/fulltext)

Promoting Exercise in Patients with Cancers of the Head and Neck During COVID-19

In March 2021, Kunal Sindhu, MD, Anthony Nehlsen, MD, and Richard Bakst, MD, published an article in *BMJ Open Sport & Exercise Medicine Journal* titled “Promoting Exercise in Patients with Cancers of the Head and Neck During COVID-19 and Beyond.” In recent years, the benefits of exercise in patients with cancer have increasingly been recognized. Unfortunately, patients with, and survivors of, cancers of the head and neck often face a constellation of symptomatic and nutritional obstacles that can interfere with their ability to adhere to structured exercise regimens. The spread of COVID-19 has only added to these challenges. In this Viewpoint, the authors detail the impediments faced by patients with cancers of the head and neck in obtaining sufficient exercise, review the evidence supporting the benefits of exercise in patients with cancer, and discuss interventions to promote exercise in this patient population. Find the full article here: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7978064/>

Radiation Therapy Leaders Share COVID-19 Response

In March, 2021, Samantha Skubish, MS, RT(R)(T), Maria Dimopoulos, MBA, RT(T), Danielle McDonagh, MS, RT(T) and Clodagh Starrs, PgC, RT(T), published an article in the journal *Radiation Therapist* of the American Society of Radiologic Technologists titled “Managing During COVID-19: Implementing Safety Procedures at Mount Sinai Hospitals.” Hospitals in the Mount Sinai Health System were some of the first and most substantially affected by coronavirus disease outbreaks in the country in 2020. The article reflects the Mount Sinai experience with the ongoing challenges presented by the pandemic, including the required adjustments to daily clinical and educational operations. Find the full article here: https://media.asrt.org/pdf/publications/RTT/RTT_Vol30_No1.pdf

Richard Stock, MD, and Andrew Smith, MD, Published in *Seminars in Radiation Oncology*

Richard Stock, MD, and Andrew Smith, MD, co-authored an article in *Seminars in Radiation Oncology* titled “Radiopharmaceuticals for Bone Metastases.” As a single organ distributed diffusely throughout the body, bones represent both a unique challenge and unique opportunity for the treatment of symptomatic metastatic disease. While the multifocality of bone metastases often prevents effective complete treatment with focal radiotherapy, the similar pathophysiology of these diffuse sites of disease opens the door to targeted systemic therapy. The relatively rapid dose fall-off from beta- or alpha-emitting particles, if correctly and reliably targeted to osseous metastases, might reduce tumor burden and enhance pain control or improve survival. The authors discuss fundamental mechanisms for antineoplastic activity, initial clinical trials validating their use, the use of concurrent antiresorptive therapies to provide bone protection, and ongoing clinical trials targeted at best utilization of these agents in the broader context of mCRPC treatment. Find the full article here: <https://www.sciencedirect.com/science/article/pii/S1053429620300503>

Robert Samstein, MD, PhD, Published in *Cell*

In December 2020, Robert Samstein, MD, PhD, co-authored an article in *Cell* titled “Shared Immunogenic Poly-Epitope Frameshift Mutations in Microsatellite Unstable Tumors.” Microsatellite instability-high (MSI-H) tumors are characterized by high tumor mutation burden and responsiveness to checkpoint blockade. Authors identified tumor-specific frameshifts encoding multiple epitopes that originated from indel mutations shared among patients with MSI-H endometrial, colorectal, and stomach cancers. Key takeaways from the research highlight: MSI-H tumors are enriched in recurrent shared immunogenic frameshifts; shared frameshifts are expressed on RNA and protein levels; and shared frameshifts produce exceptional T cell responses.

Find the full article here: <https://www.sciencedirect.com/science/article/pii/S009286742031463X>



Robert Samstein, MD, PhD, Published in *Journal of the National Cancer Institute*

Robert Samstein, MD, PhD, co-authored article in *Journal of the National Cancer Institute* titled “Pathogenic ATM Mutations in Cancer and a Genetic Basis for Radiotherapeutic Efficacy.” Radiation therapy is one of the most commonly used cancer therapeutics, but genetic determinants of clinical benefit are poorly characterized. Pathogenic germline variants in ATM are known to cause ataxia-telangiectasia, a rare hereditary syndrome notable for marked radiosensitivity. In contrast, somatic inactivation of ATM is a common event in a wide variety of cancers, but its clinical actionability remains obscure. The authors demonstrate that somatic ATM inactivation is associated with markedly improved tumor control following RT. Find the full article here:

<https://academic.oup.com/jnci/article/113/3/266/5877948?login=true#.XyJcEFWNXZM>

Robert Samstein, MD, PhD, Published in *Nature Cancer*

Robert Samstein, MD, PhD, co-authored an article in *Nature Cancer* titled “Mutations in BRCA1 and BRCA2 differentially affect the tumor microenvironment and response to checkpoint blockade immunotherapy.” Immune checkpoint blockade (ICB) has improved outcomes for patients with advanced cancer, but the determinants of response remain poorly understood. Findings reveal the divergent effects of BRCA1 and BRCA2 deficiency on ICB outcome and have important implications for elucidating the genetic and microenvironmental determinants of response to immunotherapy.

Find the full article here: <https://www.nature.com/articles/s43018-020-00139-8>

Sheryl Green, MBBCh, and Kunal Sindhu, MD, Published in

Advances in Radiation Oncology

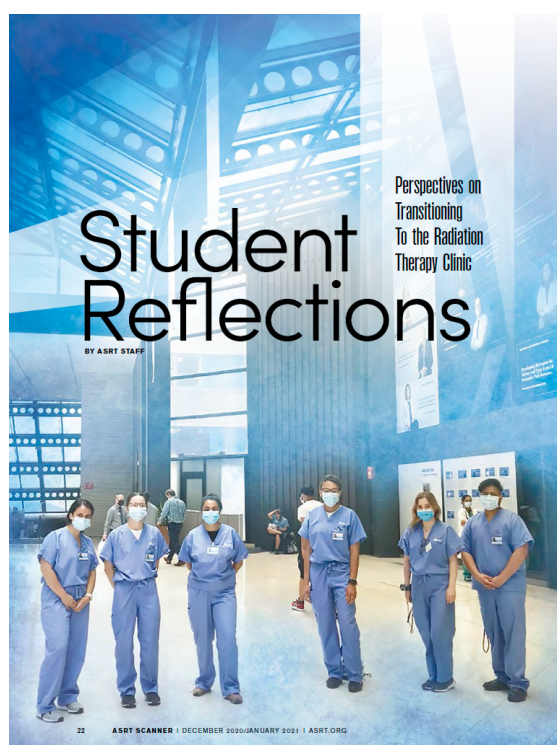
Sheryl Green, MBBCh, and Kunal Sindhu, MD, published an article in *Advances in Radiation Oncology* titled “The Fear Returns: Messaging in the Age of Coronavirus Disease 2019 (COVID-19).” The article discusses the physicians’ experiences during the COVID-19 pandemic, relying on their judgement to guide clinical decisions. In many cases, they chose to delay or modify care to protect our patients from a novel and potentially lethal disease. The pair stress that patients with serious medical conditions should under no circumstances forego necessary treatment during this trying time. Find the full article here: [https://www.advancesradonc.org/article/S2452-1094\(20\)30371-7/fulltext](https://www.advancesradonc.org/article/S2452-1094(20)30371-7/fulltext)

Radiation Therapy Leaders Advocate and Analyze the Advanced Practice Radiation Therapy Role in tipsRO

In March 2021, Samantha Skubish, MS, RT(R)(T), Clodagh Starrs, PgC, RT(T), and Danielle McDonagh, MS, RT(T), published an article in *Technical Innovations and Patient Support in Radiation Oncology* titled “Exploring opportunities and pathways for Advanced Practice Radiation Therapy Roles in the United States.” The article reviews the current radiation therapy practice and professional landscape in the United States as it relates to advanced practice, and explores opportunities and challenges under the U.S. health care infrastructure. Find the full article here: [https://www.tipsro.science/article/S2405-6324\(21\)00005-6/abstract](https://www.tipsro.science/article/S2405-6324(21)00005-6/abstract)

Radiation Therapy Student Perspectives Published in *Scanner* Newsmagazine

In December 2020, alongside their program director, radiation therapy students Michelle Arguello, BS, Samantha Cariello, BS, Kennedy Dorset, BS, Ajay Ramdeholl, BS, Shafira Subedi, BS and Kayla Ulloa, BS, published an article in the American Society of Radiologic Technologists *Scanner* newsmagazine titled “Student Perspectives.” The article shares perspectives on transitioning to the radiation therapy clinic, highlighting the support of Mount Sinai Radiation Oncology staff in their transition and clinical education. Find the full article here: https://media.asrt.org/pdf/publications/SCAN/SCAN_Vol153_No2.pdf



Maria Dimopoulos, MBA, RT(T), Shares Radiation Therapy Program Tools



Maria Dimopoulos, MBA, RT(T)

In March, 2021, Maria Dimopoulos, MBA, RT(T), Radiation Therapy Program Director, published an article in the Journal of the American Society of Radiologic Technologists *Radiation Therapist* titled “Optimizing Student Rotations in Radiation Oncology Departments.” The article shares tools developed at the Mount Sinai Center for Radiation Therapy Education that enhance transitions focused on structure, standardization, and data tracking. Find the full article here: https://media.asrt.org/pdf/publications/RTT/RTT_Vol30_No1.pdf

Research Corner

We are proud to share protocols opened at the Mount Sinai Department of Radiation Oncology

PI/Sponsor/Identifier	Clinical Trial
PI: Isabelle Germano Sponsor: Alliance for Clinical Trials in Oncology NCT04114981	<i>Single Fraction Stereotactic Radiosurgery Compared With Fractionated Stereotactic Radiosurgery in Treating Patients With Resected Metastatic Brain Disease</i>
PI: Karyn Goodman Sponsor: ECOG-ACRIN Cancer Research Group NCT04166318	<i>Lower-Dose Chemoradiation in Treating Patients With Early-Stage Anal Cancer, the DECREASE Study</i>
PI: Kenneth Rosenzweig Sponsor: NRG Oncology NCT03137771	<i>Maintenance Chemotherapy With or Without Local Consolidative Therapy in Treating Patients With Stage IV Non-small Cell Lung Cancer</i>
PI: Richard Bakst Sponsor: RTOG NCT01220583	<i>Radiation Therapy With or Without Chemotherapy in Treating Patients With High-Risk Malignant Salivary Gland Tumors That Have Been Removed By Surgery</i>
PI: Sheryl Green Sponsor: Canadian Cancer Trials Group NCT03488693	<i>Regional Radiotherapy in Biomarker Low Risk Node Positive Breast Cancer (TAILOR RT)</i>
PI: Jorge Gomez Sponsor: NRG Oncology NCT04158141	<i>Testing the Addition of Targeted Radiation Therapy to Surgery and the Usual Chemotherapy Treatment (Pemetrexed and Cisplatin [or Carboplatin]) for Stage I-III A Malignant Pleural Mesothelioma</i>
PI: Robert Samstein Sponsor: NCI NCT04402788	<i>Testing the Addition of Radiation Therapy to the Usual Immune Therapy Treatment (Atezolizumab) for Extensive Stage Small Cell Lung Cancer, The RAPTOR Trial</i>
PI: Robert Samstein Sponsor: NCI NCT04214262	<i>Testing the Addition of the Drug Atezolizumab to the Usual Radiation Treatment for Patients With Early Non-small Cell Lung Cancer</i>

In the News



The Healing Power of Music

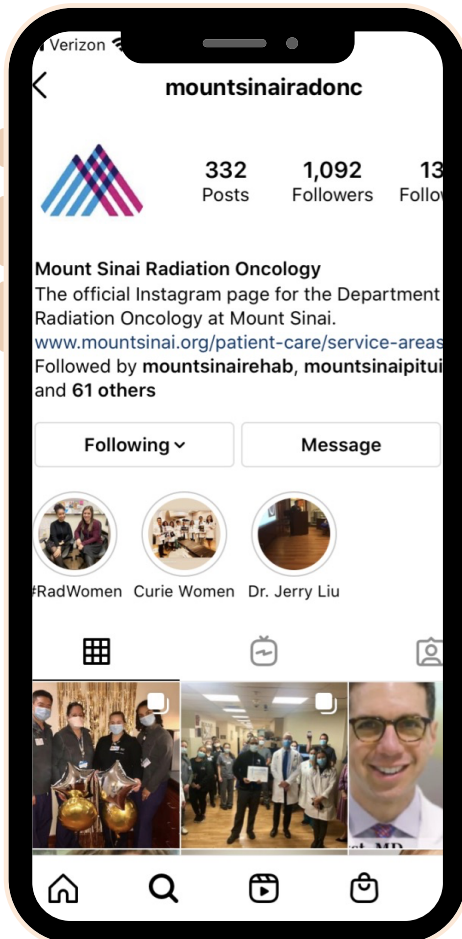
In April, Andrew Rossetti, MMT, LCAT, MT-BC, licensed music therapist, along with Jerry Liu, MD, and Manjeet Chadha, MD, radiation oncologists at Mount Sinai Downtown, were featured by The New York Times in an article titled “The Healing Power of Music.” The article shares how music therapy is increasingly used to help patients cope with stress and treatment. While musical therapies are rarely stand-alone treatments, they are increasingly used as adjuncts to other forms of medical treatment. They help people cope with their stress and mobilize their body’s own capacity to heal. “Patients in hospitals are always having things done to them,” Mr. Rossetti explained. “With music therapy, we are giving them resources that they can use to self-regulate, to feel grounded and calmer. We are enabling them to actively participate in their own care.” Find the full article here: <https://www.nytimes.com/2021/04/08/well/music-therapy-treatment-stress.html?smid=em-share>

Mount Sinai Radiation Oncology Social Media

Interested in joining our social media committee? Take a picture we should post?

Please contact Samantha Skubish at Samantha.skubish@mountsinai.org.

Thank you!



Follow us on Instagram searching the handles:

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[@MountSinaiRTTedu](https://www.instagram.com/MountSinaiRTTedu)



To learn more about the radiation oncology simulation and treatment process, view our educational video playlist on YouTube by searching [Mount Sinai Radiation Oncology](#)



Follow our Mount Sinai Radiation Oncology residents on Twitter searching the handle

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