Department of Radiation Oncology

Medical Physics

"Partnered with the Alpert Medical School of Brown University, the Department of Radiation Oncology at Rhode Island Hospital has a three-fold mission: providing the highest quality and safest care to patients, educating the next generation of clinicians, and advancing medicine through research. Our medical physics residency training program provides broad exposure to medical physics and this clinical training is gained through a variety of comprehensive clinical rotations. It is through this training that the resident will be in an ideal position in preparation for the ABR board examinations and more importantly, on his or her path to becoming a knowledgeable, qualified medical physicist"

James Brindle, Ph.D., DABR
Residency Program Director, jbrindle@lifespan.org

BROWN
Alpert Medical School

Providence, Rhode Island

Providence is the state capital and largest city in Rhode Island, as well as the third largest city in New England. Formerly a bastion of industry as well as organized crime, Providence's Renaissance has created new parks and attractions and brought emphasis back to its historic roots. Down-City events, historic vistas, eclectic districts such as College Hill and Federal Hill, and a great nightlife make Providence a worthwhile tourist destination. -Wikitravel

"I was very excited to join the Medical Physics Residency Program at Rhode Island Hospital in 2018 after completing my graduate studies. I felt I would get a comprehensive education since RIH offers a variety of modalities including GammaKnife, CyberKnife, AccuBoost, as well as conventional linac-based therapy and brachytherapy. There are multiple treatment planning systems and for research. The training I receive here will prepare me to start my career as a competent medical physicist."

Helen Liu, M.S.
First year Medical Physics Resident
M.S. in Medical Physics
University of Pennsylvania, 2018

COMMONLY ASKED QUESTIONS

How many residents are you planning on taking in the upcoming match?
We will be recruiting for one resident in the upcoming match to begin his or her training on July 1, 2019. We continue to explore options for adding a second resident to the program but at this time our program is credentialed for one resident.

Do you have a preference for students graduating with a PhD or an MS degree?
We have no preference for students graduating with a PhD versus a MS degree. Our current resident has a master's degree while two residents possessed doctoral degrees.

How is your residency program structured and how is resident progress assessed?
Our program is comprised of a series of rotations with a maximum duration of 3 months. It is a 24 month clinical program. A month of research is granted to the successful resident.

Tell me about your institution (equipment, types of procedures performed, number of physicists, etc).
The Lifespan Cancer Institute is comprised of five hospitals. At this time, radiation oncology is only offered at Rhode Island Hospital (main facility) where approximately 100 patients are treated per day. We currently have seven radiation oncologists, ten faculty/staff physicists, and six radiation dosimetrists at our main facility.

What clinical responsibilities do your residents have (e.g., machine QA, chart checks, IMRT QA, physicist of the day, etc)?
Our residents do perform a wide variety of clinical tasks to include machine QA, IMRT QA (only during rotation, and chart checks. The intent is to increase the resident's responsibilities over the duration of the program as the resident demonstrates and establishes competency in select tasks.

What distinguishes your residency program from other programs?
Our institution has wide variety of treatment modalities which offer the resident the ability to be exposed to many different treatment platforms. We have affiliations with a CAMPEP-accredited graduate programs university of Rhode Island and Brown University, and the Radiation Oncology Residency As a result, teaching opportunities do exist.

Faculty:

Eric E. Klein, Ph.D	Chief of Physics	Toni Roth, M.S.	Lead for TPS
James Brindle, Ph.D	Program Director	Reshma Munbodh, Ph.D.	Computational Physicist
Mark Rivard, Ph.D.	Director, Research	Daniel Cutright, Ph.D.	Lead for SRS
Gene Cardarelli, Ph,D.	Lead for QA services	Michelle Schwer, M.S.	Clinical Trials
Jessica Kelley, Ph.D.	Imaging Lead		

Rhode Island Hospital utilizes a vast array of treatment modalities and techniques, allowing for specialized patient care in many areas. These technologies allow for personalized treatment planning in many areas of delivery including the following:

- Varian TrueBeam STx with ExacTrac
- Varian Trilogy Accelerator with OBI & Align RT
- Varian iX Accelerator with OBI
- Accuray CyberKnife Radiosurgery
- Gamma Knife Perfexion Radiosurgery
- Elekta & Varian HDR Brachytherapy
- Varian Eclipse & Phillips Pinnacle TPS
- RaySearch RayStation

Program Website: https://www.lifespan.org/centers-services/radiation-oncology-services/medical-physics/medical-physics-residency-program