Clinical Medical Physics Residency Program

Program Description

The Radiation Oncology Clinical Medical Physics Residency Program at The US Oncology Network is designed for candidates with masters or doctoral degrees, or certificates, in medical physics, who are interested in careers as clinical medical physicists, in radiation oncology. Note: ONLY those applicants with a M.S., Ph.D., or certificate from a CAMPEP accredited medical physics graduate program will be considered for entrance to the residency program. This program concentrates on the medical uses of physics in clinical treatment of cancer patients; it does not focus on core medical physics didactic training or basic research. The program's self-study was submitted to CAMPEP in 2021 and we hope to achieve accreditation in time for 2022 applications, with an initial resident starting in 2023.

Clinical Training

During the residency, residents have clinical rotations through the following topics:

1. External Beam Simulation, Treatment Planning and Validation
2. Imaging and Simulators in Radiation Therapy
3. Linear Accelerator QA & Dosimetric Systems
4. IMRT and IGRT
5. Linear Accelerator Acceptance Test Protocol, Survey, and Commissioning
6. External Beam Treatment Planning System and Electronic Medical Record System Commissioning
7. Brachytherapy
8. Special Procedures
9. Radiation Safety and Shielding Design
10. Stereotactic Radiosurgery / Fractionated Stereotactic Radiotherapy / Stereotactic Body Radiotherapy
11. Medical Physics professional issues

In addition, clinical training will include work on department projects, carried out under the supervision of the medical physics faculty.

Didactic Training

Clinical conferences, seminars, small discussion groups, journal club and one-on-one instruction are all an integral part of the program. Residents participate in the following: medical physics journal club, medical physics conferences, dosimetry conferences, tumor boards, and assigned readings.

Residency Environment

The US Oncology Network is a network of over 1300 physicians and oncology specialists with over 400 offices across the United States, including over 140 radiation therapy clinics. Practices in The US Oncology Network house multiple programs in IMRT, IGRT, SRS, SBRT, HDR and LDR brachytherapy, radiopharmaceuticals, and state of the art imaging equipment.

The residency will take full advantage of the system wide equipment and clinical resources to provide the resident a broad training experience.

The residents work under the supervision of ABR board certified medical physics faculty. They also work closely with radiation oncologists, dosimetrists, nurses, and other radiation oncology personnel.

The US Oncology Network offers a comprehensive benefits package for residents, including medical, dental, vision, life, short- and long-term disability insurance.

Competency Clinical

Competency is evaluated through side by side clinical work with mentors and an oral presentation and exam for each rotation.

Clinical Research Project

During the second year of training select residents have the opportunity to design and execute a clinical research project. The project is not mandatory and is allowed if the resident shows sufficient progress and time management skills. Opportunities exist for collaborative research with staff members from The US Oncology Network or other clinics in The Network. Results of a research project should be suitable for presentation at a scientific meeting and/or preparation of a manuscript for publication in a scientific journal.

Appointments and Applications

To be eligible to apply, one must have a M.S., Ph.D., or certificate from a CAMPEP accredited graduate program. The application cycle starts in early October. Applications must be completed by December 15 for entrance into the program the following July. Those considered for an appointment will be asked for an on-site interview, with the program director and selected faculty.

Application Submission

Application is made through the AAPM common application website, which is at http://www.aapm.org/mprap.