Clinical Medical Physics Residency Program

Program Description

The Radiation Oncology Clinical Medical Physics Residency Program at Texas Oncology 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 is CAMPEP accredited. The program is not able to sponsor immigrant visas for program participants.

Clinical Training

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

1. Basic External Beam Treatment Planning and MU Calculations
2. Imaging and Simulators in Radiation Therapy
3. Linear Accelerator QA & Dosimetric Systems
4. External Beam Treatment Simulation, Planning, and Treatment Guidance
5. Linear Accelerator Acceptance Test Protocol, Survey, and Commissioning
6. External Beam Treatment Planning System and Radiation Oncology Information System Commissioning
7. Brachytherapy
8. Special Procedures
9. Proton Therapy
10. Stereotactic Radiosurgery and Radiotherapy
11. Radiation Safety and Shielding Design
12. 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

Texas Oncology is a network of over 500 physicians and oncology specialists with over 300 offices in Texas, including 62 radiation therapy clinics. Texas Oncology practices

house multiple programs in SRS and SBRT (including CyberKnife and Gamma Knife), SGRT, TBI, TSET, HDR and LDR brachytherapy, therapeutic radiopharmaceuticals and theranostics, the Texas Center for Proton Therapy, and state of the art imaging equipment. The residency takes full advantage of the system wide equipment and clinical resources to provide residents 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.

Competency

Clinical competency is evaluated through side-by-side clinical work with mentors and an oral examination for each clinical 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 Texas Oncology or other US Oncology clinics. 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 the posted deadline (typically mid-December) for entrance into the program the following July. Those considered for an appointment must interview with the program director and selected faculty.

Benefits

Residents generally attend the annual AAPM meeting during their second year and are encouraged to attend the regional SW AAPM chapter meetings annually. Texas Oncology offers a comprehensive benefits package, including medical, dental, vision, life, short- and long-term disability insurance and 401(k). Starting resident salary for 2026 will be $66,400. All travel expenses pertaining to resident training, whether for meetings or for resident duties, are paid for or reimbursed by Texas Oncology.

Application

Application is made through the National Match Services MedPhys Match website (http://www.natmatch.com/medphys/). The Texas Oncology residency takes part in the Medical Physics Residency Match system.