

THE DEPARTMENT OF RADIATION MEDICINE

Medical Physics Residency Program





Oregon Health & Science University (OHSU) is Oregon's only academic health center and is nationally respected distinguished as a research university dedicated solely to advancing health sciences.

OHSU is a community of healers dedicated to saving lives, ensuring the well-being of all entrusted to our care. We aim to recruit, retain, and develop diverse resident physicians of the highest caliber. We believe that in order to deliver great health care, we must train culturally-competent physicians from diverse backgrounds - including members of racial and ethnic groups that are historically under-represented in medicine, individuals raised in rural environments, and people who have overcome significant social and financial disadvantages.

In January 1967, the Department of Radiation Therapy was established at the University of Oregon Medical School. It has the distinction of being the first independent radiation oncology department at a medical school in the United States

In the 1980s the department name was changed from the Department of Radiation Therapy to the Department of Radiation Oncology and in 2006, the official name was changed to the Department of Radiation Medicine.

The department dedicates itself to the foundation of the four pillars: **patient care, service, research and education.**

Our faculty and staff are committed to providing comprehensive care, utilizing advanced technologies and maintaining the highest level of professional standards.

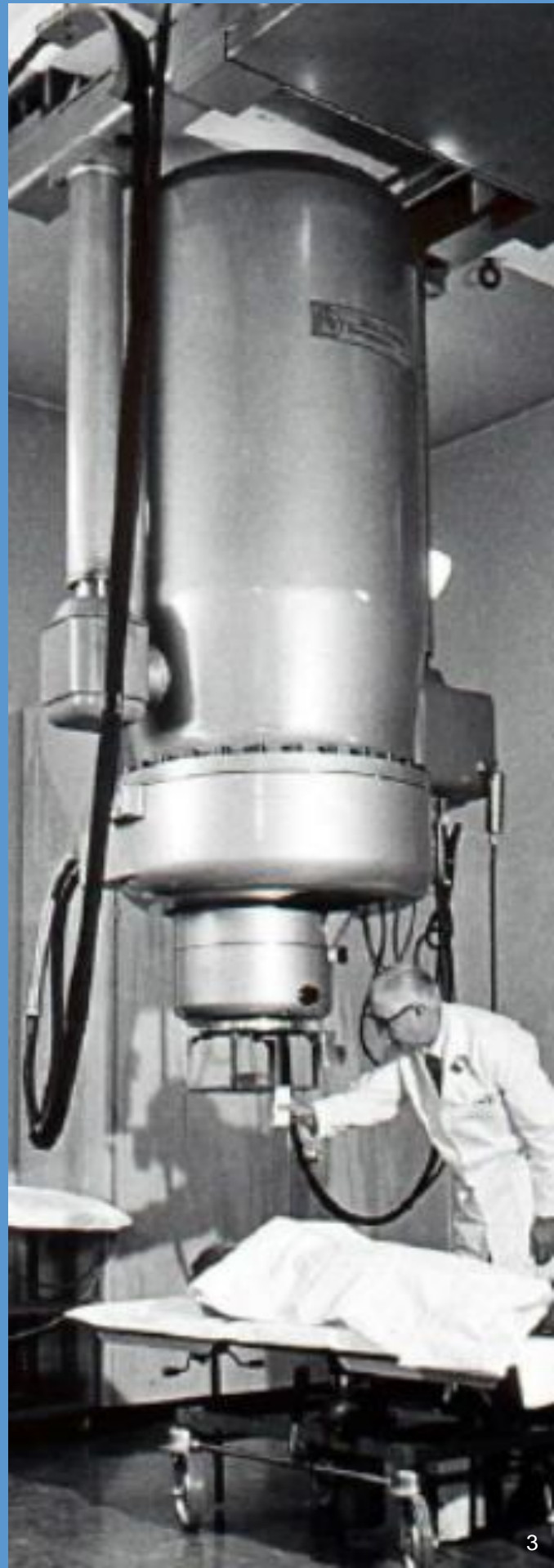
The Department of Radiation Medicine has a long history of academic training geared toward clinicians and medical professionals. Since 1966, the Department has sustained a thriving radiation oncology physics program.

In 2009, Oregon State University and Oregon Health & Science University created a joint medical physics graduate program called Oregon Medical Physics Program (OMPP). The OMPP program was accredited by Commission on Accreditation of Medical Physics Education Programs (CAMPEP) in 2011 and is the only CAMPEP-accredited program in the Northwest.

In 2011, building on the OMPP, the Department of Radiation Medicine established OHSU's Medical Physics Residency Program to provide high quality training to the standards recommended by the American Association of Physicists in Medicine (AAPM) professional council and CAMPEP.

The Medical Physics Residency Program's aims to provide clinical training in radiation oncology physics that will prepare graduates for board certification and professional careers in radiation oncology. The training provides structured education under the supervision of board-certified medical physicists. Training is structured to follow the recommended CAMPEP guidelines and **AAPM Task Group 249**.

The program currently has two medical physics residents and recruits for one new resident annually.





CURRICULUM

Residents are provided with a residency training schedule that provide an overview of each clinical rotation, the duration of each rotation, learning objectives, evaluation points, and reading materials. Residents are provided with a tracking portal account to log and track clinical cases during each clinical rotation.

Year One

The first year of training consists of close work with medical physicists and dosimetrists. Rotations include: Dosimetry; Radiation Safety; Quality Assurance; Linac Annual Quality Assurance; Stereotactic Radiosurgery/Stereotactic Body Radiotherapy; Cyber Knife; Gamma Knife; Tomo Annual Quality Assurance

Year Two The second year of training residents are provided with autonomy to develop independent thinking and problem solving skills. Rotations include: Tomotherapy; Brachytherapy; Special Procedures: Intrabeam; Special Procedures: Mobetron; Special Procedures: Total Body Irradiation; Special Procedures: Total Skin Electron Therapy; Linac Annual Quality Assurance; Acceptance & Commissioning

Residents are provided the opportunity to participate in the commissioning of new technologies.

RESEARCH

The Medical Physics Residency Program does not contain a research requirement but residents are strongly encouraged to develop this skillset through clinical implementation projects which require literature review, experimentation, and documentation.

TECHNOLOGY

The Department of Radiation Medicine serves patients at the OHSU's main campus (Marquam Hill) and six satellite centers. The satellite centers are located in Oregon and are accessible by car and public transportation.

Marquam Hill is the primary site and residents may be asked to visit satellites if unique training opportunities occur.

The program utilizes all facilities to ensure residents have both a broad and deep exposure to the field of medical physics.

MARQUAM HILL (primary site):

4 external-beam treatment rooms (treating on average 80-100 patients per day)

2 Elekta Versa HD

1 Varian TrueBeam (Linac-based SRS)

1 Tomotherapy HD

HDR Brachytherapy

Oregon's first intraoperative radiation therapy program

Mobetron (intraoperative electron beam therapy)

Intrabeam (intraoperative low-energy photon therapy)

LDR Eye Plaque Program

Treatment planning systems

Primary: Eclipse, Oncentra, Brainlab Elements, Tomotherapy

Secondary: Monaco, Pinnacle

OTHER CLINICAL SITES:

Elekta Synergy Linear Accelerators

Elekta Versa HD Linear Accelerator

GE Optima CT850

GE PET/CT Simulator

Nucletron/Elekta Flexitron afterloader

Varian Ximatron radiographic simulator





PROGRAM FACULTY

Program Leadership

Monica Kishore, M.S.
Program Director
Assistant Professor,
Medical Physics

Christopher Aguilera, M.S.
Associate Program Director
Assistant Professor,
Medical Physics

Stephanie Junell, Ph.D.
Associate Program Director
Assistant Professor,
Medical Physics

Core Medical Physics Faculty

Brandon Merz, M.S.
Assistant Professor, Medical Physics

Ross Brody, Ph.D.
Assistant Professor, Medical Physics

James Tanyi, Ph.D.
Chief Medical Physicist

Susha Pillai, M.S.
Assistant Professor, Medical Physics

Junan Zhang, Ph.D.
Assistant Professor, Medical Physics

Core Dosimetry Faculty

Kyle Gallagher, Ph.D.
Assistant Professor, Medical Physics

Amy Longsdon, M.S.
Dosimetrist

Malcolm Heard, Ph.D.
Assistant Professor, Medical Physics

Chhipo Sath, M.S.
Dosimetrist

Raghavendiran Boopathy, Ph.D.
Assistant Professor, Medical Physics

Debra Monaco
Dosimetrist

Richard J. Crilly, Ph.D.
Associate Professor, Medical Physics

Lori Willette, B.S.
Dosimetrist

Steve Rhodes, B.S.
Dosimetrist

Oregon Health & Science University
3181 S.W. Sam Jackson Park Road
Portland, OR 97239

