Supporting core missions of education, patient care research, and community outreach as we advance Precision Radiation Oncology

Our 3 divisions collaborate to advance the latest radiation treatment technologies and techniques to make them available to patients across our 6-site statewide network. We are supported in this effort by our expert teams of basic scientists, physicists, and clinicians, widely recognized for success in clinical innovation. Among our 2022 achievements:

**Basic science:** Our Division of Translational Radiation Sciences’ NIAID Centers for Medical Countermeasures Against Radiation Consortium $12.8 million U19 group manages partnerships at Duke, Columbia, and other centers. A world leader in medical countermeasures research, the division has a cumulative support portfolio of >$50 million. In addition, Phuoc Tran, MD, PhD, successfully transitioned his preclinical lab group to UMSOM, focusing on advancing precision radiation oncology as a unifying goal. In <1 year, his efforts resulted in >$12 million in new research funding, including a U54 award.

**Clinical:** Our dedicated physicians and staff actively plan for practice site network expansion to ensure equitable access to the latest treatments and clinical trials. Despite pandemic challenges, >400 patients were enrolled on clinical trials and registries in 2022. As a designated NRG Main Member, we are #2 nationally/internationally for NRG trial accruals and have added Tata Memorial Hospital (India) as an NRG site.

**Physics:** Our large Medical Physics Division continues to lead in implementation of cutting-edge technologies across the bench-to-bedside spectrum, including a vigorous cross-divisional program in FLASH technology; integration of hyperthermia and radiation treatments at our Maryland Proton Treatment Center; clinical and research advancement of the Maryland-developed GammaPod breast treatment system, and launch of newly funded AI and deep-learning projects.

**Education:** For >100 years, our department has trained future radiation oncologists and educated referring physicians as well as the larger community. Our faculty supports successful programs for college/graduate/medical students (inc. research fellowships), respected medical and physics residency programs with expanded research options, additional fellowships, and ABR continuing education certifications.

In 2021-2022, our >70 faculty members:
- Published >160 peer-reviewed articles
- Delivered >300 scientific presentations, posters, and invited lectures
- Secured >$17 million in new federal and industry funding and sustained an additional >$30 million in continued support
- Hosted 4 national/international training courses
- Were featured in the local and national media >100 times.