

Department of Radiation Oncology

Monthly Research Update: October 2025

New UMB Hard/Software Policy

On October 1, UMB instituted a new policy on acquisition of IT hard- and software (including free and paid online software/services and cloud-based applications). Before any such soft- or hardware or service is used or installed an [IT-PCS form](#) must be completed and approved by UMB IT. The form facilitates a review for compliance with IT security, network compatibility, the Americans with Disabilities Act, procurement, and other requirements before purchase or use. Departments now need to submit this completed and approved form with requisitions for IT software and specific hardware purchases. For PCard purchases and free access and/or soft- or hardware, departments must submit the IT-PCS form and receive approval before executing the purchase or starting usage. For free access/software, the department is responsible for retaining a record of the approved IT-PCS form for the life of the software/hardware. In addition, any terms and conditions that need negotiation before use will be reviewed. This process is likely to extend the time needed to integrate new hard- and software into clinical and research projects, and the process for monitoring use of cloud-based applications remains unclear. Contact [Miek Segers](#) with questions.

OCTOBER AT A GLANCE TOTALS

Clinical trials

Total enrolled	42
GCC, other	8
NRG, co-ops	17
PCG, other registries	17

Grants and contracts

New awards	1
Submitted	6

Articles published	6
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Information for this monthly update should be provided no later than the second Wednesday of each month to Miek Segers at msegers@som.umaryland.edu. The update will be published on the second Friday of each month.

Have questions about identifying a funding source? Finding research partners across the UMB/UM campuses or at another university? Defining future research strategies? Or organizing your thoughts on (virtual) paper? Contact Nancy Knight, PhD, Director of Academic and Professional Development for the department, at nknight@umm.edu

Clinical Trial Enrollment

- 15 patients at MPTC on the **Proton Collaborative Group Registry**
- 2 patients at MPTC on the **Deep Thermal Therapy HUD**
- 7 patients at UMMC on **GCC 2422**: Phase I feasibility and pilot RCT of serious illness conversation guide in patient and intimate partner dyads living with advanced lung cancer
- 1 patient at UCH and 2 at Shore on **GCC 21136**: Phase 2 randomized total eradication of metastatic lesions following definitive radiation to the prostate in de novo oligometastatic prostate cancer (TERPS) trial
- 1 patient at MPTC, 1 at Shore, and 1 at Capital Region on **NRG GU013**: The phase III 'High Five Trial' five fraction radiation for high-risk prostate cancer
- 1 patient at UMMC on **NRG BN012**: A randomized phase III trial of pre-operative compared to post-operative stereotactic radiosurgery in patients with resectable brain metastases
- 3 patients at UMMC on **GCC 2384**: Evaluation of improved onboard patient imaging with the Hypersight platform on TrueBeam 4.0/4.1
- 3 patients at UMMC on **GCC 2380**: A single arm phase I-II trial evaluating selective adjuvant therapy for HPV-mediated oropharynx SCCs based on residual circulating tumor DNA (ctDNA) levels (SAVAL)
- 1 patient at UMMC on **NRG BN013**: Phase III trial of single fraction stereotactic radiosurgery (SRS) versus fractionated SRS (FSRS) for intact brain metastases
- 1 patient at UMMC on **GCC 23100**: A randomized trial of high-risk metachronous oligometastatic prostate cancer with high-risk mutations treated with metastasis directed therapy and niraparib/abiraterone acetate and prednisone (KNIGHTS)
- 1 patient at MPTC on **GCC 2497**: A phase 1 single-arm single-institution study evaluating neoadjuvant chemoimmunotherapy with immuno-sensitizing radiation for borderline resectable non-small cell lung cancer (NeoRADjuvant trial)
- 1 patient at UCH and 1 at Capital Region on **NRG CC014**: Radiation therapy for high-risk asymptomatic bone metastases: A pragmatic multicenter randomized phase 3 clinical trial (PREEMPT)

Grants and Contracts

Funded:

- **Erika Davies, PhD**, PI/PD (PI/PD prime Sigalov), a subaward on SignaBlok, Inc. (R21AI193495), for a “Novel medical countermeasure to mitigate potentially lethal acute radiation syndrome” (Sep 2025–Aug 2026; \$114,473).

Submitted:

- **France Carrier, PhD**, Lead, **Amit Sawant, PhD**, MPI/PD, to NIH/NCI PA-25-304 Exploratory/Developmental Research Project Grant (R21) for “Development of a new experimental model to systematically evaluate clinical parameters needed for the safe translation of ultra-high dose rate (FLASH) radiotherapy into clinical applications” (\$427,625).
- **Hem Shukla, PhD**, Lead, **Lei Ren, PhD**, MPI/PD, to NIH RFA-CA-25-001, Innovative Molecular and Cellular Analysis Technologies for Basic and Clinical Cancer Research for “Development of tumor organoid coculture system using ECM hydrogel matrix for analyzing desmoplastic immunosuppressive pancreas tumor microenvironment” (\$699,750).
- **Hem Shukla, PhD**, Lead, **Jason Molitoris, MD, PhD**, MPI/PD, to NIH PA-25-304: Exploratory/Developmental Research Project Grant (R21) for “Deciphering cancer stem cell mediated chemotherapy and radiation resistance in pancreatic cancer using patient-derived tumor organoids” (\$427,625).
- **Hem Shukla, PhD PI/PD**, to NIH PA-25-304: Exploratory/Developmental Research Project Grant (parent R21) for “Clinical validation of the role of caveolin-1 in chemotherapy and radiation resistance in non small cell lung cancer” (\$427,625).
- **Arezoo Modiri, PhD**, lead MPI/PD, to NIH/NCI PAR-25-145: Clinical Characterization of Cancer Therapy-induced Adverse Sequelae and Mechanism-Based Interventional Strategies (R01) for “Evaluating a novel imaging biomarker for cardiotoxicity mitigation and surveillance in patients receiving thoracic radiotherapy” (\$3,095,560).
- **Lei Ren, PhD, PI/PD** (lead MPI/PD Dai at Stanford University), to NIH/NCI PA-25-301: Research Project Grant (R01) for “Agentic AI for enhanced peer review and quality assurance in radiation therapy” (\$113,450).

Articles Published

Entered into PubMed October 9 through November 12. Titles link to PubMed abstracts.

1. **Brown MH**, Pollock AE, **Sun K**, **Marter K**, **Alicia D**, Li E, Risher H, Rao GG, Roque DM, Mohindra P, **Bentzen SM**, **Vyfhuis MAL**, **McAvoy SA**, **Nichols EM**. [Comparing acute toxicity of proton and photon radiotherapy in newly diagnosed gynecologic primaries](#). *Int J Radiat Oncol Biol Phys*. 2025 Nov 2:S0360-3016(25)06421-1. Online.
2. **Cherng HR**, **Sun K**, **Bentzen SM**, Brown PD, Armstrong TS, Palmer JD, Gondi V, Mehta MP, **Mishra MV**. [Redefining neurocognitive outcomes after radiation for brain metastases: A patient-level meta-analysis of recovery following initial decline](#). *J Natl Cancer Inst*. 2025 Oct 22:djaf264. Online.
3. Einstein DJ, Abel ML, Aragon-Ching JB,....**Tran PT**, Madan RA. [National Cancer Institute's Working Group on Biochemically Recurrent Prostate Cancer: Clinical trial design considerations](#). *J Clin Oncol*. 2025 Oct 23:JCO2501693. Online.
4. Jacoby JL, Calderon Aparicio A, François NB, Thapar M, Burke SE, Xu S, DeAngelis T, Shastri A, **Tran PT**, Simone NL. [Standardizing caloric restriction for preclinical cancer research](#). *Biotechniques*. 2025 Oct 24:1-10. Online.
5. Lee CC, Gandotra S, Bliss A, Jenkins GW, Dyalram D, Hatten K, Moyer K, Mehra R, **Molitoris J**, **Ferris M**, Taylor R, Wolf JS, Lubek JE. [Persistent opioid use following resection of oral cavity squamous cell carcinoma: incidence and risk factors](#). *Head Neck*. 2025 Oct 25. Online.
6. Shi X, Wang JH, Chapin BF, Aparicio A, Subudhi SK, **Tran PT**, Park RJ, Deek MP, Zhang H, Bylund KC, Cummings M, Armstrong AJ, Tang C, Suter P. [Integrating systemic therapy and metastasis-directed therapy in oligometastatic hormone-sensitive prostate cancer](#). *Prostate Cancer Prostatic Dis*. 2025 Oct 11. Online.
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Important Dates for Upcoming Funding Submissions

Please note: For grants, contracts, and other extramural funding applications due in January and February 2026, please be aware that UMB/UMSOM offices are closed in late December and early January. If you are planning to file for any extramural funding in January or February, please contact [DORA staff](#) before December 1 to establish a timeline that will ensure your timely and fully compliant submission.