



**University of Maryland Department of Radiation Oncology  
Report for FY 2025 (July 1, 2024 – June 30, 2025)  
Proton-, FLASH-, and Hyperthermia-Related Peer-Reviewed  
Publications**

<b>Topic</b>	<b>Count</b>
Proton- related publications – FY25	17
FLASH-related publications – FY25	3
Hyperthermia-related publications – FY25	0

**Proton-related publications (17 total)**  
**FY 2025: July 2024 – June 2025**

1. Biswal NC, MacFarlane M, Mossahebi S, Deng W, Yao W, Molitoris JK, Ferris MJ, Yi B, Zakhary MJ. [Standardized review criteria improve the efficiency of verification CT workflows in adaptive proton therapy for head-and-neck cancers](#). *Med Dosim*. 2025 May 31:S0958-3947(25)00027-5. Online ahead of print.
2. Chhabra AM, Amos RA, Simone CB, Kaiser A, Perles LA, Giap H, Hallemeier CL, Johnson JE, Lin H, Wroe AJ, Diffenderfer ES, Wolfgang JA, Sakurai H, Lu HM, Hong TS, Koay EJ, Terashima K, Vitek P, Rule WG, Apisarnthanarax SJ, Badiyan SN, **Molitoris JK**, Chuong M, Nichols RC Jr. [Proton beam therapy for pancreatic tumors: A consensus statement from the Particle Therapy Cooperative Group Gastrointestinal Subcommittee](#). *Int J Radiat Oncol Biol Phys*. 2025 Jan 4:S0360-3016(24)03769-6. Online ahead of print.
3. Chhabra AM, Snider JW, Kole AJ, Stock M, Holtzman AL, Press R, Wang CJ, Li H, Lin H, Shi C, McDonald M, Soike M, Zhou J, Sabouri P, **Mossahebi S**, Colaco R, Albertini F, Simone CB II. [Proton Therapy for Spinal Tumors: A Consensus Statement From the Particle Therapy Cooperative Group](#). *Int J Radiat Oncol Biol Phys*. 2024 Nov 15;120(4):1135-1148. Epub 2024 Aug 23.
4. Correia D, Indelicato DJ, Paulino AC, Ermoian R, Mihalcik S, Perkins SM, Hill-Kayser C, Mangona VS, Lee J, Chang JH, Laack NN, **Kwok Y**, Perentesis J, Vatner R, Dave R, Gallotto SL, Lawell MP, Bajaj BVM, Allison KW, Perry A, Yock TI. [Evolution of proton radiation therapy brainstem constraints on the Pediatric Proton/Photon Consortium Registry](#). *Pract Radiat Oncol*. 2024 Aug 10:S1879-8500(24)00194-2. Online ahead of print.
5. Ebadi M, Pankuch M, Boyer S, Chang J, Stevens C, Hall MD, Hasan S, Bates JE, Flampouri S, Kole AJ, Mohindra P, Rossi C, Sanghvi P, McGee L, **Rana Z**, Tseng YD. [Proton Pencil Beam Scanning Facilitates the Safe Treatment of Extended Radiation Targets for Hodgkin Lymphoma: A Report from the Proton Collaborative Group Registry](#). *Cancers (Basel)*. 2024 Aug 1;16(15):2736.
6. **Ferris MJ, Mossahebi S, Jatzak J, Molitoris JK, Rana ZH, Steacy KJ, Regine WF, Yi BY**. [Bulky non-small cell lung cancer treated with two-field robust proton lattice boost followed by conventional chemoradiation](#). *Clin Transl Radiat Oncol*. 2025 Jun 1;53:100987. eCollection 2025 Jul.
7. Jiang C, Kim M, Han X, Chelius M, **Hoover T**, Kersun L, Reilly AF, Hubbeling H, Cummings E, Kurtz G, Hill-Kayser C, Plastaras JP, LaRiviere MJ. [Outcomes of proton therapy to infradiaphragmatic sites in pediatric patients with Hodgkin lymphoma](#). *Pediatr Blood Cancer*. 2024 Sep 12:e31290. Online ahead of print.
8. Lang Y, Jiang Z, Sun L, **Tran P, Mossahebi S**, Xiang L, **Ren L**. [Patient-specific deep learning for 3D protoacoustic image reconstruction and dose verification in proton therapy](#). *Med Phys*. 2024 Jul 9. Online ahead of print.
9. **Modiri A, Mossahebi S, Sawant A, Chen S, Zhang B, Yi B**. [Sectorized single-energy volumetric-modulated proton arc therapy \(VPAT\): A preliminary multi-disease-site concept study](#). *Phys Med*. 2024 Oct 4;127:104829.

10. **Mossahebi S, Byrne K, Jiang K, Gerry A, Deng W, Repetto C, Jackson IL, Sawant A, Poirier Y.** [A high-throughput focused collimator for OAR-sparing preclinical proton FLASH studies: commissioning and validation.](#) *Phys Med Biol.* 2024 Jul 3;69(14).
11. Nguyen P, Indelicato DJ, Esterman A, Paulino AC, Ermoian RP, Laack NN, Perkins SM, Mangona V, Mihalcik S, Lee J, Hill-Kayser C, **Kwok Y**, Chang JH, Perentesis JP, MacEwan I, Le H, Yock TI. [Acute Toxicities of Proton Craniospinal Irradiation in Pediatric Medulloblastoma: A Pediatric Proton/Photon Consortium Registry \(PPCR\) Study.](#) *Int J Part Ther.* 2025 Apr 17;16:100747.
12. **Savla B, Jatzak J, Molitoris JK, Witek ME, Marter K, Zakhary MJ, Xu J, Snow GE, Guardiani EA, Ferris MJ.** [Pencil beam scanning proton therapy as single vocal cord irradiation for early-stage glottic cancer.](#) *Int J Part Ther.* 2024 Jul 17;13:100623.
13. **Sharma VR, Jiang Z, Mossahebi S, Shakeri E, Chalise A, Gobbert MK, Peterson SW, Polf JC, Ren L.** [Modeling prompt gamma \(PG\) emission, detection and imaging in real patient anatomy using a novel Compton camera for dose verification in proton therapy.](#) *Phys Med Biol.* 2025 May 30. Online ahead of print.
14. Singh G, Koduri S, Rao M, Kidorf M, Ruff S, **Patel A, Bentzen SM, Nichols E, McAvoy S, Vyfhuis MA.** [Cancer outcomes and cardiopulmonary toxicities for black patients with breast cancer treated with proton therapy.](#) *JNCI Cancer Spectr.* 2024 Dec 28:pkae129. Online ahead of print.
15. Tong JY, Bzhilyanskaya V, **Ferris MJ, Molitoris JK, Hatten KM.** [Adjuvant proton radiation following transoral robotic surgery for HPV-positive oropharyngeal squamous cell carcinoma.](#) *Otolaryngol Head Neck Surg.* 2025 Jan 31. Online ahead of print.
16. Yeo I, Goughenour A, Cernica G, Nie W, Joo M, Wang P, Fan J, Parniani A, **Kanani S.** [Proton Versus CyberKnife Therapy Planning for Hypofractionated Treatment of Prostate With Focal Boost.](#) *Int J Part Ther.* 2024 Nov 1;14:100635.
17. Wisdom AJ, Yeap BY, Michalski JM, Horick NK, Zietman AL, Christodouleas JP, Kamran SC, Parikh RR, Vapiwala N, Mihalcik S, Miyamoto DT, Zeng J, Gay HA, Pisansky TM, **Mishra MV, Spratt DE, Mendenhall NP, Soffen EM, Bekelman JE, Efstathiou JA.** [Setting the stage: Feasibility and baseline characteristics in the PARTIQoL Trial comparing proton therapy versus intensity modulated radiation therapy for localized prostate cancer.](#) *Int J Radiat Oncol Biol Phys.* 2024 Sep 30:S0360-3016(24)03444-8. Online ahead of print.

### FLASH-related publications (3 total)

**FY 2025: July 2024 – June 2025**

1. Klaver YL, Hoogeman MS, Lu QR, Bradley JD, Choi JI, **Ferris MJ**, Grau C, Guha C, Lin H, Lin L, Mascia AE, Moerman AM, Poulsen PR, Shi LZ, Sørensen BS, Tian S, Vozenin MC, Willey CD, Zhou S, Amos RA, Hawkins M, Simone CB 2nd. [Requirements and study design for the next proton FLASH clinical trials: An international multidisciplinary Delphi consensus.](#) *Int J Radiat Oncol Biol Phys.* 2025 Mar 31:S0360-3016(25)00306-2.
2. **Poirier Y, Byrne KE, Hamad G, Therriault-Proulx F, Jiang K, Deng W, Sawant A, Mossahebi S.** [What's in a Proton FLASH beam? Characterizing ultra-high dose rate protons using a commercial plastic scintillator.](#) *Radiat Res.* 2025 Apr 1;203(4):201–213.



3. Snider JW, Rustin GO, Mayr NA, **Molitoris J**, Chhabra AM, Kang M, Simone CB, **Mossahebi S**, Griffin R, Mohiuddin M, Zhang H, Amendola B, Perez N, Tubin S, Limoli C, Marter K, Mahadevan A, Coleman N, Ahmed M. [The Radiosurgery Society Working Groups on GRID, LATTICE, Microbeam, and FLASH Radiotherapies: 2022–2023 Advancements symposium and subsequent progress made](#). *Pract Radiat Oncol*. 2024 Oct 22:S1879-8500(24)00282-0. Online ahead of print.

**Hyperthermia-related publications (0 total)**

**FY 2025: July 2024 – June 2025**

*(none)*