

ROBIN OligoMET Center

Monthly Research Update: April 2025

Publications

APRIL AT A GLANCE TOTALS	
Publications	6
Grants and contracts	
New awards	0
Submitted	1
Oral Presentations	1
Abstracts	4
Clinical trials	
TERPS	2
Awards/Honors	0

Please submit all monthly updates to Jadyne Stewart at jadynstewart@som.umaryland.edu by second Wednesday of each month.

- Armstrong AJ, Liu VYT, Selvaraju RR, Chen E, Simko JP, DeVries S, Sartor O, Sandler HM, Mohamad O, Huang HC, Griffin J, Yamashita R, Esteva A, **Tran PT**, Spratt DE, Carson JH, Peters C, Gore E, Lee SP, Monson JM, Augspurger ME, El-Gayed A, Rodgers JP, McKay R, Morgan T, Feng FY, Nguyen PL. [Development and Validation of an Artificial Intelligence Digital Pathology Biomarker to Predict Benefit of Long-Term Hormonal Therapy and Radiotherapy in Men With High-Risk Prostate Cancer Across Multiple Phase III Trials](#). J Clin Oncol. 2025 Apr 16;JCO2400365. doi: 10.1200/JCO.24.00365. Epub ahead of print. PMID: 40239134; PMCID: PMC12228211.
- Cao Y, Chong HR, Kunaprayoon D, **Mishra MV, Ren L**. [Interpretable AI-assisted clinical decision making for treatment selection for brain metastases in radiation therapy](#). Med Phys. 2025 Apr 21. doi: 10.1002/mp.17844. Epub ahead of print. PMID: 40257121.
- Lin YY, Noghabi HS, Volik S, Bell R, Sar F, Haegert A, Chung HC, Fazli L, Oo HZ, Dugaard M, Kuo MH, Hsu SC, **Imada EL**, Zanettini C, Queiroz L, Schlotmann B, Gheybi K, Cooper C, Kote-Jarai Z, Eeles R; Pan Prostate Cancer Group (PPCG); Kung HJ, **Marchionni L**, Weischenfeldt J, Miller KD, Rabinowitz A, Wang Y, Zhang HF, Sorensen PH, Carey MS, Gleave M, Hayes VM, Gibson WT, Collins CC. [Identifying Rare Germline Variants Associated with Metastatic Prostate Cancer Through an Extreme Phenotype Study](#). medRxiv [Preprint]. 2025 Apr 29:2025.04.28.25326584. doi: 10.1101/2025.04.28.25326584. PMID: 40343042; PMCID: PMC12060958.
- Lin Z, Stopsack KH, Fiorentino M, Vaselkiv JB, Gerke T, Pettersson A, Flavin R, Flanagan S, Kantoff PW, Lotan TL, Preston MA, Finn SP, **Loda M**, Penney KL, Mucci LA. [Long-term performance of the Gleason score in predicting metastatic and fatal prostate cancer](#). Am J Epidemiol. 2025 Apr 29;kwaf080. doi: 10.1093/aje/kwaf080. Epub ahead of print. PMID: 40302103.
- Poirier Y, Byrne KE, Hamad G, Theriault-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. doi: 10.1667/RADE-24-00117.1. PMID: 40073911.
- Prabhu RS, Russek R, Vaslow ZK, Matsui JK, Haghighi N, Dan T, **Mishra MV**, Murphy ES, Boyles S, Perlow HK, Palmer JD, Udovicich C, Patel TR, Wardak Z, Woodworth GF, Ksendzovsky A, Yang K, Chao ST, Asher AL, Burri SH. [Standard Dose Versus Reduced Dose Single Fraction Preoperative Radiosurgery for Resected Brain Metastases \(PROPS-BM\) International Multicenter Cohort Study](#). Adv Radiat Oncol. 2025 Apr 19;10(7):101794. doi: 10.1016/i.adro.2025.101794. PMID: 40503424; PMCID: PMC12151215.

Grants and Contracts

Funded:

- None reported

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Grants and Contracts (continued)

Submitted:

- **Mishra, Mark, MD, Multi PI/PI** (GCCC) to NIH RFA-CA-24-033, NCI National Clinical Trials Network Network Lead Academic Participating Sites (UG1) for “Expanding access and engagement: Bridging diverse communities to NCTN trials” (\$6,311,184).

Oral Presentations

- **Phuoc T.**, 3rd Annual Christopher G. Wood Advances In Urologic Oncology, Radiation Oncology Distinguished Lecture (April 6, 2025 – Austin, TX). “The Space-Time Continuum in Metastatic Castration-Sensitive Prostate Cancer: The Final Frontier?”.

Abstracts

- Jarey Wang, Amol Shetty, Yang Song, Noura Radwan, Soha Bazayr, Xiaolei Shi, Theodore DeWeese, Daniel Song, Ryan Phillips, Matthew Deek, Philip Sutera, Ana Kiess, **Phuoc Tran**. Proteomic profiling of metastatic castration-sensitive prostate cancer treated with stereotactic ablative radiotherapy. AACR Special Conference in Cancer Research: Translating Targeted Therapies in Combination with Radiotherapy 2025.
- Matthew P. Deek, Yang Song, Amol Shetty, Philip Sutera, Adrianna A. Mendes, Kim Van der Eecken, Emmalyn Chen, Timothy Showalter, Trevor J. Royce, Tamara Todorovic, Huei-Chung Huang, Scott A. Houck, Rikiya Yamashita, Ana P. Kiess, Daniel Y. Song, Tamara Lotan, Andre Esteva, Felix Y. Feng, Piet Ost, **Phuoc T. Tran**. A digital pathology multimodal artificial intelligence algorithm is associated with pro-metastatic genomic pathways in oligometastatic prostate cancer. Oral Presentation in the Plenary 4: AI in Radiation Therapy Session at the AACR Special Conference in Cancer Research: Translating Targeted Therapies in Combination with Radiotherapy 2025.
- Philip Sutera, Yang Song, Amol Shetty, Jarey Wang, Kim Van der Eecken, Alex Hakanson, Yang Seagle Liu, Adrianna A. Mendes, Xiaolei Shi, Elai Davicioni, Emmalyn Chen, Rikiya Yamashita, Timothy Showalter, Tamara Lotan, Theodore DeWeese, Ana Kiess, Daniel Song, Matthew Deek, Piet Ost, **Phuoc Tran**. Evaluating associations between genomic classifier and digital pathology based multi-modal AI biomarkers in oligometastatic castration-sensitive prostate cancer. Oral Presentation in the Plenary 4: AI in Radiation Therapy Session at the AACR Special Conference in Cancer Research: Translating Targeted Therapies in Combination with Radiotherapy 2025.
- Triet Nguyen, Jinhee Chang, Kathleen Gabrielson, Amol Shetty, Yang Song, Apaala Chatterjee, Audrey Lafargue, Yoo Sun Kim, **Danielle Council**, Aaron Chan, Dipanwita Dutta Chowdhury, **Muhammad Ajmal Khan**, Nick Connis, Daniel Sforza, Eric Gardner, Christopher McFarland, Mohammad Rezaee, Nitin Roper, Christine Hann, **Phuoc Tran**. TWIST1 Associates with Resistance to Treatment and Twist1 Drives Tumor Progression in vivo for Small Cell Lung Cancer. AACR Special Conference in Cancer Research: Translating Targeted Therapies in Combination with Radiotherapy 2025.

Clinical Trial Enrollment

- 2 patients were enrolled (39/122 total) on the **TERPS trial**.

Awards/Honors

- None reported

Please note that these examples are representative of productivity from the ROBIN OligoMET Center members and are not exclusively attributable to the U54 grant.