

ROBIN OligoMET Center

Monthly Research Update: July 2024

Publications

JULY AT A GLANCE TOTALS	
Publications	8
Grants and contracts	
New awards	0
Submitted	0
Oral Presentations	5
Abstracts	3
Clinical trials	
TERPS	1
Awards/Honors	0

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

- Deng Z, Xu X, Dehghani H, Reyes J, Zheng L, **Tran PT**, Wang KK-H. [In vivo bioluminescence tomography-guided system for pancreatic cancer radiotherapy research](#). *Biomed Opt Express*. 2024;15(8):4525-4539.
- Cao Y, Sutera P, Silva Mendes W, Yousefi B, Hrinivich T, Deek M, Phillips R, Song D, Kiess A, Cem Guler O, Torun N, Reyhan M, **Sawant A, Marchionni L, Simone NL, Tran P, Onal C, Ren L**. [Machine learning predicts conventional imaging metastasis-free survival \(MFS\) for oligometastatic castration-sensitive prostate cancer \(omCSPC\) using prostate-specific membrane antigen \(PSMA\) PET radiomics](#). *Radiother Oncol*. 2024 Oct;199:110443. doi: 10.1016/j.radonc.2024.110443. Epub 2024 Jul 31. PMID: 39094629; PMCID: PMC11405100.
- Cappelli L, Uppendahl A, Gardner C, Khan M, Kayne A, Vemula S, Poiset SJ, Zhan T, Judy KD, Andrews DW, **Simone NL**, Alnahhas I, Shi W. [Baseline single institutional retrospective review of body mass index \(BMI\) as a prognostic indicator in patients with newly diagnosed glioblastoma \(GBM\)](#). *J Clin Neurosci*. 2024 Sep;127:110754. doi: 10.1016/j.jocn.2024.07.015. Epub 2024 Jul 27. PMID: 39068727.
- 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 Oct;51(10):7425-7438. doi: 10.1002/mp.17294. Epub 2024 Jul 9. PMID: 38980065; PMCID: PMC11479840.
- Omar M**, Ullanat V, **Loda M, Marchionni L**, Umeton R. [ChatGPT for digital pathology research](#). *Lancet Digit Health*. 2024 Aug;6(8):e595-e600. doi: 10.1016/S2589-7500(24)00114-6. Epub 2024 Jul 9. PMID: 38987117; PMCID: PMC11299190.
- Sutera P, Kim J, Kumar R, Deek RA, Stephenson R, Mayer T, Saraiya B, Ghodoussipour S, Jang T, Golombos D, Packiam V, Ennis R, Hathout L, Jabbour SK, Guler O, Onal C, **Tran PT**, Deek MP. [PIK3/Akt/mTOR pathway alterations in metastatic castration-sensitive prostate cancer](#). *Prostate*. 2024 Oct;84(14):1301-1308. doi: 10.1002/pros.24765. Epub 2024 Jul 17. PMID: 39021052.
- Song R, Stopsack KH, Ren J, Mucci LA, Clinton SK, **Loda M**, Wang M, Giovannucci EL, Wilson KM, Smith-Warner SA. [Coffee, Phosphoinositide 3-Kinase Signaling Pathway, and Prostate Cancer: A Prospective Study in the Health Professionals Follow-Up Study](#). *J Acad Nutr Diet*. 2024 Jul 4:S2212-2672(24)00537-9. doi: 10.1016/j.jand.2024.07.001. Epub ahead of print. PMID: 38971221.
- Spratt DE, Liu VYT, Jia AY, Royce TJ, Sandler HM, Pugh SL, **Tran PT**, Feng FY. [Meta-analysis of Individual Patient-level Data for a Multimodal Artificial Intelligence Biomarker in High-risk Prostate Cancer: Results from Six NRG/RTOG Phase 3 Randomized Trials](#). *Eur Urol*. 2024 Oct;86(4):369-371. doi: 10.1016/j.eururo.2024.06.019. Epub 2024 Jul 17. PMID: 39025748; PMCID: PMC11480946.

ROBIN OligoMET Center
Monthly Research Update: July 2024

Grants and Contracts

Funded:

- None reported

Submitted:

- None reported

Oral Presentations

- **Lei R.**, AAPM, 66th Annual Meeting & Exhibition (July 21, 2024 – Los Angeles, CA) Radiomics Features-Driven Implementatoin for the Enhancement of CBCT Images Via Multiple 2D and 3D Optimal Generative Adversarial Networks
- **Phuoc. T.**, Columbia University Irving Medical Center, Advances in GU Oncology (July 19, 2024 – New York, NY). “How I Use Genomic Classifiers for Organ-confined Prostate Cancer”.
- **Phuoc. T.**, UM SOM Nathan Schnaper B2B Seminar Series. (July 22, 2024 – Baltimore, MD). “The metastatic cancer problem – the view of a local therapist”
- **Phuoc. T.**, NRG Semi-annual Meeting - GU Core Committee (July 26, 2024 – Denver, CO). “NRG GU Translational Science Portfolio - Past, Present and Future of Biomarkers for Precision Radiation Medicine”.
- **Phuoc. T.**, Korean American Medical Association (KAMA), Maryland Chapter Annual Meeting (July 27, 2024 – Cambridge, MD). “Stage 4 Prostate Cancer - Role for the Local Therapists?”.

Abstracts

- Kai Huang, Kevin Byrne, Soha Bazyar, **Phuoc Tran, Amit Sawant**, Kai Jiang. A Novel Collimator for High-Throughput Murine Hemi- and Whole-Thoracic Lung Irradiation using Ultra-High Dose Rate Electron Beams. AAPM 2024 National Meeting.
- Zhuoran Jiang, Yankun Lang, Q. Jackie Wu, Liangzhong Xiang, **Lei Ren**. Towards General Deformable Medical Image Registration using Large Models: A Preliminary Study. AAPM 2024 National Meeting.
- Zhuoran Jiang, Vijay R. Sharma, Mostafa Cham, Steve W. Peterson, Sina Mossahebi, Matthias K. Gobbert, Jerimy C. Polf, **Lei Ren**. Deep Learning-based Prompt Gamma Imaging for Proton Range Verification: A Monte-Carlo Simulation Study on Patient Data.

Clinical Trial Enrollment

- 1 patient was enrolled (23/122 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.