

ROBIN OligoMET Center

Monthly Research Update: May 2024

Publications

MAY AT A GLANCE TOTALS	
Publications	8
Grants and contracts	
New awards	0
Submitted	1
Oral Presentations	6
Abstracts	9
Clinical trials	
TERPS	0
Awards/Honors	1

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

- Cherng HR, Sun K, **Bentzen S**, Armstrong TS, Gondi V, Brown PD, Mehta M, **Mishra MV**. [Evaluating the heterogeneity of hippocampal avoidant whole brain radiotherapy treatment effect: A secondary analysis of NRG CC001](#). *Neuro Oncol*. 2024 May 3;26(5):911-921. doi: 10.1093/neuonc/noad226. PMID: 38069666; PMCID: PMC11066939.
- Dinalankara W, Ng DP, **Marchionni L**, Simonson PD. [Comparison of three machine learning algorithms for classification of B-cell neoplasms using clinical flow cytometry data](#). *Cytometry B Clin Cytom*. 2024 Jul;106(4):282-293. doi: 10.1002/cyto.b.22177. Epub 2024 May 9. PMID: 38721890; PMCID: PMC11286351.
- Esquea EM, Ciraku L, Young RG, Merzy J, Talarico AN, Ahmed NN, Karuppiah M, Ramesh A, Chatoff A, Crispim CV, Rashad AA, Cocklin S, Snyder NW, Beld J, **Simone NL**, Reginato MJ, Dick A. [Selective and brain-penetrant ACSS2 inhibitors target breast cancer brain metastatic cells](#). *Front Pharmacol*. 2024 May 16;15:1394685. doi: 10.3389/fphar.2024.1394685. PMID: 38818373; PMCID: PMC11137182.
- Hahn EA, Pugh SL, Lu HL, Vela AM, Gillespie EF, Nichols EM, Wright JL, MacDonald SM, Cahlon O, Baas C, Braunstein LZ, Fang LC, Freedman GM, Jimenez RB, Kesslering CM, **Mishra MV**, Mutter RW, Ohri N, Rosen LR, Urbanic JJ, Jagsi R, Mitchell SA, Bekelman JE, Cella D; Study Group Investigators. [Validation of Patient-Reported Outcomes in Patients With Nonmetastatic Breast Cancer Receiving Comprehensive Nodal Irradiation in the RadComp Trial](#). *Int J Radiat Oncol Biol Phys*. 2024 Sep 1;120(1):149-161. doi: 10.1016/j.ijrobp.2024.03.020. Epub 2024 May 13. PMID: 38739047; PMCID: PMC11329347.
- Majumder PK, Grisanzio C, O'Connell F, Barry M, Brito JM, Xu Q, Guney I, Berger R, Herman P, Bikoff R, Fedele G, Baek WK, Wang S, Ellwood-Yen K, Wu H, Sawyers CL, Signoretti S, Hahn WC, **Loda M**, Sellers WR. [A Prostatic Intraepithelial Neoplasia-Dependent p27Kip1 Checkpoint Induces Senescence and Inhibits Cell Proliferation and Cancer Progression](#). *Cancer Cell*. 2024 Jun 10;42(6):1126. doi: 10.1016/j.ccell.2024.05.008. Epub 2024 May 30. PMID: 38866454.
- Onal C, Guler OC, Erpolat P, Hurmuz P, Sutera P, Deek MP, Elmali A, Yilmaz MT, Koken UH, Yavuz M, Ozyigit G, **Tran PT**. [Evaluation of Treatment Outcomes of Prostate Cancer Patients With Lymph Node Metastasis Treated With Definitive Radiotherapy: Comparative Analysis of PSMA PET/CT and Conventional Imaging](#). *Clin Nucl Med*. 2024 Aug 1;49(8):e383-e389. doi: 10.1097/RLU.0000000000005284. Epub 2024 May 31. PMID: 38847441.
- Saeed AM, **Bentzen SM**, Ahmad H, Pham L, Woodworth GF, **Mishra MV**. [Correction: Systematic review and pooled analysis of the impact of treatment-induced lymphopenia on survival of glioblastoma patients](#). *Radiat Oncol*. 2024 May 15;19(1):58. doi: 10.1186/s13014-024-02443-4. Erratum for: *Radiat Oncol*. 2024 Mar 14;19(1):36. doi: 10.1186/s13014-023-02393-3. PMID: 38750577; PMCID: PMC11097475.

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Publications

8. Vicente EM, Grande Gutierrez N, Oakes JM, Cammin J, Gopal A, Kipritidis J, Modiri A, Mossahebi S, Mohindra P, Citron WK, Matuszak MM, Timmerman R, **Sawant A.** [Integrating local and distant radiation-induced lung injury: Development and validation of a predictive model for ventilation loss.](#) Med Phys. 2024 Sep;51(9):6259-6275. doi: 10.1002/mp.17187. Epub 2024 May 31. PMID: 38820385.

Grants and Contracts

Funded:

- None reported

Submitted:

- **Phuoc Tran, MD, PhD, PI, PI UMB**, sub with Rutgers University on Prostate Cancer Foundation Challenge Award, "Development and validation of blood, tissue, and radiographic markers of response to metastasis directed therapy in oligometastatic castration-sensitive prostate cancer" (\$333,332).

Oral Presentations

- **Lei R.**, Johns Hopkins Kimmel Cancer Center 22nd Annual Research Matters Conference (May 9, 2024 – Baltimore, MD). "AI for Image Guided Radiation Therapy: Advancements, Challenges, and Future Directions."
- **Lei R.**, Mayo Clinic Arizona Radiation Oncology 2nd Proton Therapy Research Workshop (April 25, 2024 - Phoenix, Arizona). "AI in Medical Imaging for Proton Therapy."
- **Phuoc. T.**, ARS National Meeting, Education/Clinical Session 1 – Radiobiology and Medical Physics (May 2, 2024 – Palm Springs, CA). "PROSTOX: Germline microRNA Radiogenomic Biomarker for Radiation-induced GI and GU Toxicity".
- **Phuoc. T.**, The Feng Symposium on Prostate Cancer Revolutions – Translational Science (May 18, 2024 – San Francisco, CA). "CAP-CLIA, CTEP CCSC and Digital Pathology, Oh My! - Lessons learned as NRG GU TRP Chair (under FF)".
- **Phuoc. T.**, Careggi University Hospital, Department of Biomedical, Experimental and Clinical Sciences Seminar (May 24, 2024 – Florence, Italy). "Understanding Oligometastatic Prostate Cancer Through Biomarker-Driven Research".
- **Phuoc. T.**, Careggi University Hospital, Department of Biomedical, Experimental and Clinical Sciences Seminar (May 28, 2024 – Florence, Italy). "Genomic and Digital Pathology Biomarkers to Improve Precision Medicine for Localized Prostate Cancer".

Abstracts

- Audrey Lafargue, Hailun Wang, Sivarajan T. Chettiar, Rajendra P. Gajula, Amol Shetty, Yang Song, Brian W. Simons, Triet Nguyen, Christine Lam, Francesca A. Carrieri, Caleb Smack, Nick Connis, Dipanwita Dutta Chowdhury, Jinhee Chang, Danielle Council, Katriana Nugent, Ismaeel Siddiqui, Kekoa Taparra, Mohammad Rezaee, Natasha Zachara, Zachary S. Morris, Christopher McFarland, Sarki Abba Abdulkadir, Christine Hann, **Phuoc T. Tran.** TWIST1-induced suppression of oncogene-induced senescence in non-small cell lung cancer requires the transactivation domain of TWIST1. AACR Annual Meeting 2024. Dipanwita Dutta Chowdhury, **Eddie Imada**, Nick Connis, Triet Nguyen, Jinhee Chang, Danielle Council, Audrey Lafargue, Moahmmad Rezaee, **Phuoc T. Tran**, **Luigi Marchionni**, Christine L. Hann. TNIK-induced Chemoradiation Resistance in Small Cell Lung Cancer. AACR Annual Meeting 2024.
- Dipanwita Dutta Chowdhury, **Eddie Imada**, Nick Connis, Francesca Carrieri, Triet Nguyen, Jinhee Chang, Danielle Council, Audrey Lafargue, Moahmmad Rezaee, **Phuoc T. Tran**, **Luigi Marchionni**, Christine L. Hann. TNIK-induced Chemoradiation Resistance in Small Cell Lung Cancer. Oral presentation for the NCI Small cell Lung Cancer Consortium Meeting 2024.

ROBIN OligoMET Center Monthly Research Update: May 2024

Abstracts (continued)

- Jack Andrews, Yohan Kim, Edlira Horjeti, Ali Arafa, Philip Sutera, Aurélie De Bruycker, Ryan Phillips, Daniel Song, Ana Kiess, Daniel S. Childs, Oliver Sartor, Jacob Orme, Carole Mercier, Piet Ost, **Phuoc Tran**, Sean Park, Fabrice Lucien. Prognostic value of PSMA-extracellular vesicles in oligometastatic castration-sensitive prostate cancer treated with stereotactic ablative radiotherapy: A multi-center observational study. Genitourinary Cancers Symposium 2024.
- Jack Andrews, Yohan Kim, Edlira Horjeti, Ali Arafa, Philip Sutera, Aurélie De Bruycker, Ryan Phillips, Daniel Song, Ana Kiess, Daniel S. Childs, Oliver Sartor, Jacob Orme, Carole Mercier, Piet Ost, **Phuoc Tran**, Sean Park, Fabrice Lucien. PSMA-positive Extracellular Vesicles are a Biomarker for Stereotactic Ablative Radiotherapy in Oligorecurrent Prostate Cancer: Combined Analysis of the STOMP-like and ORIOLE cohorts. AUA Annual Meeting 2024.
- Jinhee Chang, Dipanwita Dutta Chowdhury, Danielle Council, Triet Nguyen, Shreya Jagtap, Aaron Chan, **Muhammad Ajmal Khan**, Nick Connis, Pedro Torres-Ayuso, John Brognard, Moahmmad Rezaee, Audrey Lafargue, Christine L. Hann, **Phuoc T. Tran**. Investigating the Role of TNIK in the Pathogenesis of Lung Squamous Cell Carcinoma. AACR Annual Meeting 2024.
- **Muhammad Ajmal Khan**, Jinhee Chang, Triet Nguyen, Danielle Council, Dipanwita Dutta Chowdhury, Amol Shetty, Yang Song, Aaron Chan, Christine Lam, Priyanshi Patel, Lucas Tran, Jiayu Chen, Katriana Nugent, Matthew Ballew, Ghali Lemtiri-Chlieh, Francesca Anna Carrieri, Reem Malek, Hailun Wang, Noelle R. (Jurcak) Thielman, Keyu Li, Lei Zheng, Kathleen Gabrielson, **Phuoc T. Tran**, Audrey Lafargue. Modeling Twist1 Overexpression in a Pancreatic Ductal Adenocarcinoma Mouse Model. AACR Annual Meeting 2024.
- Philip Sutera, Matthew P. Deek, Adrianna A. Mendes, Yang Song, Amol Shetty, 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, **Phuoc T. Tran**, Piet Ost. Validation of a digital pathology-based multimodal artificial intelligence model in oligometastatic castration-sensitive prostate cancer including in patients from the STOMP and ORIOLE phase II randomized clinical trials. ASCO National Meeting 2024. ASCO 2024 Conquer Cancer Merit Award.
- Triet Nguyen, Jinhee Chang, Kathleen Gabrielson, Amol Shetty, Yang Song, Audrey Lafargue, Shreya Jagtap, Danielle Council, Aaron Chan, Dipanwita Dutta Chowdhury, **Muhammad Ajmal Khan**, Nick Connis, Francesca A. Carrieri, **Eddie Imada**, Daniel Sforza, Eric Gardner, Christopher McFarland, **Luigi Marchionni**, Mohammad Rezaee, Christine Hann, **Phuoc T. Tran**. Investigating the roles of the epithelial-mesenchymal transition program in small cell lung cancer tumorigenesis and chemoradiation response. AACR Annual Meeting 2024.
- Triet Nguyen, Jinhee Chang, Kathleen Gabrielson, Amol Shetty, Yang Song, Audrey Lafargue, Shreya Jagtap, Danielle Council, Aaron Chan, Dipanwita Dutta Chowdhury, Muhammad Ajmal Khan, Nick Connis, Francesca A. Carrieri, Eddie Imada, Daniel Sforza, Eric Gardner, Christopher McFarland, **Luigi Marchionni**, Mohammad Rezaee, Christine Hann, **Phuoc T. Tran**. Investigating the roles of the epithelial-mesenchymal transition program in small cell lung cancer tumorigenesis and chemoradiation response. Oral presentation for the NCI Small cell Lung Cancer Consortium Meeting 2024.

Clinical Trial Enrollment

- 0 patient was enrolled (20/122 total) on the **TERPS trial**.

Awards/Honors

- Søren M. Bentzen receives a Lifetime Achievement Awards from European Society for Radiotherapy and Oncology (ESTRO).

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