

Department of Radiation Oncology

Monthly Research Update: January 2024

UM Hosts NCI ROBIN Symposium

JANUARY AT A GLANCE TOTALS

Clinical trials

| | |
|----------------------|----|
| Total enrolled | 30 |
| GCC, other | 3 |
| NRG, NCI, co-ops | 2 |
| PCG and PPC registry | 25 |

Grants and contracts

| | |
|------------|---|
| New awards | 0 |
| Submitted | 0 |

Articles published 9

The National Cancer Institute (NCI)-funded Radiation Oncology-Biology Integration Network (ROBIN) held its first annual symposium on January 18 and 19 at the University of Maryland Baltimore, hosted by the ROBIN Oligometastasis (OligoMET) Center, based in the Department of Radiation Oncology. More than 80 representatives from ROBIN centers across the United States gathered in Baltimore and online for progress updates, formal presentations, and cross-center collaboration opportunities. The long-term goal of the NCI ROBIN program is to coordinate multidisciplinary efforts in development of radiation and combined modality trial concepts that can inform a range of future focused grants, including basic and translational studies, large-scale program projects, and clinical trials.

Funding for the ROBIN OligoMET Center was awarded to project director/PI Phuoc T. Tran, MD, PhD, and additional PIs Amit Sawant, PhD, and Nicole Simone, MD, (Thomas Jefferson University) in August 2022, with support of more than \$7.5 million over 5 years. ROBIN OligoMET projects are studying the ways in which radiation treatment can affect the metastatic process, particularly in low-volume or oligometastatic prostate cancer, to identify new treatment approaches.

Pilot Research Grants Available

On February 2 Dr. Tran announced the 2024 ROBIN OligoMET Collaborative Pilot Project Grants. These are small research projects (up to \$75,000 in direct costs) aimed at obstacles in radiation research that can be addressed by leveraging the expertise of new collaborations, ideally between 2 or more ROBIN teams. Submissions are due on April 30. For more information, contact jadynstewart@som.umaryland.edu.

Clinical Trial Enrollment

- 24 patients at MPTC on the **Proton Collaborative Group Registry**
- 1 patient enrolled on the **Pediatric Proton Consortium Registry**
- 1 patient at UCH on **NRG GU009**: Parallel phase III randomized trials for high-risk prostate cancer evaluating de-intensification for lower genomic risk and intensification of concurrent therapy for higher genomic risk with radiation (Predict-RT)
- 1 patient at UMMC and 1 at MPTC on **GCC 21136**: Phase II randomized total eradication of metastatic lesions following definitive radiation to the prostate in de novo oligometastatic prostate cancer (TERPS) trial.
- 1 patient at MPTC on **GCC 19140**: Pilot study of laser interstitial thermal therapy followed by hypofractionated radiation therapy for treatment of recurrent gliomas
- 1 patient at MPTC on **PCG BRE007-12**: Phase II protocol of proton therapy for partial breast irradiation in early-stage breast cancer

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

Grants and Contracts

- **Phuoc T. Tran, MD, PhD**, Lead-PI, PA-20-185 NIH R01, “Quantitative spatial analysis of immune-mediated response to chemo-immune-radiotherapy from muscle-invasive bladder cancer clinical trials” (\$4,028,295).
- **Phuoc T. Tran, MD, PhD**, PI UMB, sub UWisconsin, NIH R01 PAR-22-139 program Systematic Testing of Radionuclides in Preclinical Experiments (STRIPE), “Tumor-Barcoding and High-Throughput Sequencing to Assess Genomic Predictors of TRT Response and Immunomodulation in NSCLC” (\$1,267,325).
- **France Carrier, PhD**, PI, NIH/NIAID, Development of Candidate Radiation/Nuclear MCMs (U01), “Repurposing SCGB1A1/CC10 protein to mitigate ARS progressing to DEARE” (\$2,636,036).

Articles Published

Entered into PubMed January 10–February 7. Titles link to PubMed abstracts, with full-text links.

1. Ajithkumar T, Avanzo M, Yorke E, Tsang DS, Milano MT, Olch AJ, Merchant TE, Dieckmann K, Mahajan A, Fuji H, Paulino AC, Timmermann B, Marks LB, **Bentzen SM**, Jackson A, Constine LS. [PENTEC organ-specific report: Brain and brain stem necrosis after reirradiation for recurrent childhood primary central nervous system tumors: A PENTEC comprehensive review](#). *Int J Radiat Oncol Biol Phys*. 2024 Feb 1:S0360-3016(24)00001-4. Online ahead of print.
2. **Byrne KE, Poirier Y, Xu J**, Gerry A, Foley MJ, Jackson IL, **Sawant A, Jiang K**. [Technical note: A small animal irradiation platform for investigating the dependence of the FLASH effect on electron beam parameters](#). *Med Phys*. 2024 Jan 11. Online ahead of print.
3. **Cherng HR**, Qu M, Zafari Z, **Bentzen S**, Armstrong TS, Gondi V, Brown PD, Mehta M, **Mishra MV**. [Evaluating the sensitivity of EQ-5D-5L in patients with brain metastases: a secondary analysis of NRG CC001](#). *J Natl Cancer Inst*. 2024 Jan 27. Online ahead of print.
4. Hua CH, **Bentzen SM**, Li Y, Milano MT, Rancati T, Marks LB, Constine LS, Yorke E D, Jackson A. [Improving pediatric normal tissue radiation dose-response modeling in children with cancer: A PENTEC initiative](#). *Int J Radiat Oncol Biol Phys*. 2024 Jan 25:S0360-3016(23)08171-3. Online ahead of print.
5. Mak KS, Scannell Bryan M, Dignam JJ, Shipley WU, Lin Y, Peters CA, Gore EM, Rosenthal SA, Zeitzer KL, D'Souza DP, Horwitz EM, Pisansky TM, Maier JM, Chafe SM, Robin TP, Roach M 3rd, **Tran PT**, Souhami L, Michalski JM, Hartford AC, Feng FY, Sandler HM, Efstathiou JA. [Cardiovascular mortality and duration of androgen deprivation in locally advanced prostate cancer: Long-term update of NRG/RTOG 9202](#). *Eur Urol Focus*. 2024 Feb 1:S2405-4569(24)00011-7. Online ahead of print.
6. Meiller TF, Fraser CM, Grant-Beurmann S, Humphrys M, Tallon L, Sadzewicz LD, Jabra-Rizk MA, Alfaifi A, Kensara A, **Molitoris JK**, Witek M, Mendes WS, **Regine WF, Tran PT**, Miller RC, Sultan AS. [A longitudinal metagenomic comparative analysis of oral microbiome shifts in patients receiving proton radiation versus photon radiation for head and neck cancer](#). *J Cancer Allied Spec*. 2024 Jan 22;10(1):579.
7. Sabouri P, **Molitoris J**, Ranjbar M, Moreau J, Simone CB 2nd, Mohindra P, Langen K, **Mossahebi S**. [Dosimetric evaluation and reproducibility of breath-hold plans in intensity modulated proton therapy: An initial clinical experience](#). *Adv Radiat Oncol*. 2023 Oct 21;9(3):101392. eCollection 2024 Mar.
8. Stern W, Alaei P, Berbeco R, DeWerd LA, Kamen J, MacKenzie C, Moros EG, **Poirier Y**, Potter CA, Schae D, Patallo IS, Abend M, Swarts S, Trompier F. [Achieving consistent reporting of radiation dosimetry by adoption of Compatibility in Irradiation Research Protocols Expert Roundtable \(CIRPER\) recommendations](#). *Radiat Res*. 2024 Jan 11. Online ahead of print.
9. **Zarinshenas R**, Campbell P, **Sun K, Molitoris JK**, Patel AN, Witek ME, Cullen KJ, Mehra R, Hatten KM, Moyer KF, Taylor RJ, Vakharia KT, Wolf JS, **Ferris MJ**. [Disease and toxicity outcomes for a modern cohort of patients with squamous cell carcinoma of cutaneous origin involving the parotid gland: Comparison of volumetric modulated arc therapy and pencil beam scanning proton therapy](#). *Radiother Oncol*. 2024 Feb 1:110112. Online ahead of print.

Important Dates for Upcoming Funding Submissions

Below is an updated calendar with firm due dates for upcoming major NIH deadlines (individual RFA/PA dates may differ). Contact the Department Office of Research Administration (DORA) (msegers@som.umaryland.edu) ASAP if you plan to submit any funding proposal, regardless of funder. Failure to meet these deadlines may result in delaying your submission until the next cycle (if available).

| NIH deadline | DORA budget, prelim materials | Dean/SOM prelim materials | FINAL Dean/SOM/SPA |
|-----------------------|-------------------------------|---------------------------|--------------------|
| R01/U01 Resub March 5 | 02/21/2024 | 02/23/2024 | 02/27/2024 |
| R21 Resub March 16 | 03/05/2024 | 03/07/2024 | 03/11/2024 |
| R01/U01 New July 5 | | | |
| R21 New July 16 | | | |