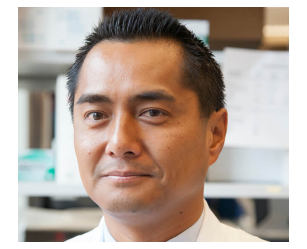


# Department of Radiation Oncology Monthly Research Update: August 2022

## ROBIN Award Launches Innovative Research

In August, the National Cancer Institute finalized the award of Radiation Oncology Biology Integration Network (ROBIN) funding to the University of Maryland Baltimore. Led by Phuoc Tran, MD, PhD, and Amit Sawant, PhD, in our department and by Nicole Simone, MD (Thomas Jefferson University Hospital; Philadelphia, PA), the 5-year, U54 award for more than \$7.5 million will support the establishment of the ROBIN Oligometastasis Center at Maryland. Through a coordinated group of interacting projects and cores, the center will test the hypothesis that consolidative radiation can alter cancer cell state plasticity and the host-tumor metabolism that drives metastasis formation. The cores will integrate state-of-the-art tissue, liquid, and radiomic multiparametric profiling techniques from humans, complemented with syngeneic mouse tumor models in the context of a first-in-humans phase 2 randomized trial.



"This is a tremendous opportunity for researchers across our department's 3 divisions and for collaborations with other academic and industry partners," said Dr. Tran, who serves as the ROBIN OligoMET Center director. "The project's multiple cores--and the fundamental questions they will work to address--have the potential to extend into long-term funded lines of research and to provide real-world answers that will benefit the broadest range of cancer patients."

### AUGUST AT A GLANCE TOTALS

#### Clinical trials

Total enrolled	36
GCC, other	11
NRG, NCI, co-ops	0
PCG Registry	25

#### Grants and contracts

New awards	2
Submitted	1

Articles published	8
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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](mailto: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](mailto:nknight@umm.edu)

## Clinical Trial Enrollment

- 25 patients were enrolled at MPTC on the **PCG Registry**.
- 1 patient was enrolled at MPTC on the **Deep Thermal Therapy HUD**.
- 1 patient was enrolled at MPTC on the **PPCR Registry**
- 3 patients were enrolled at MPTC on **GCC 20110**: A single-arm, single-stage phase II trial of Selective Avoidance of nodal VolumEs at minimal Risk (SAVER) in the contralateral neck of patients with p16-positive oropharynx cancer.
- 3 patients were enrolled at MPTC on **GCC 19146**: Comparison and verification of radiation planning for pencil beam scanning proton therapy using single energy and dual energy computed tomography simulation methods.
- 1 patient was enrolled at BWMC on **GCC 1876**: Tumor bed boost using a breast specific radiosurgery device, the GammaPod: Registry study and evaluation of quality of life with development of sizing nomogram.
- 1 patient was enrolled at UMMC on **GCC1944**: A randomized phase III trial of 2 standard dose fractionation regimens for adjuvant vaginal brachytherapy in early-stage endometrial cancer.
- 1 patient was enrolled at MPTC on **GCC 2048**: A phase I dose escalation study of hypofractionated accelerated pelvic nodal radiotherapy delivered with a simultaneously integrated prostate boost for patients with localized, intermediate- and high-risk prostate cancer

## Grants and Contracts

### Funded:

- **Phuoc T. Tran, MD, PhD**, PI/PD lead, other multi-PI/PDs **Amit Sawant, PhD**, and Nicole Simone, MD (Thomas Jefferson, University), from the National Cancer Institute (U54 CA273956) for “Radiation Oncology–Biology Integration Network on Oligometastasis (ROBIN OligoMET) Center” (August 2022–July 2027; \$7,525,939).
- **Lei Ren, PhD**, PI/PD lead, from the National Institute of Biomedical Imaging and Bioengineering (R01 EB032680) for “eXtended Modular Anthropomorphic (XMAN) phantom for imaging and treatment optimization in radiotherapy” (September 2022–May 2026; \$2,569,436).

### Submitted:

- **Jeremy Polf, PhD**, collaboration/subagreement with Directed Energy Materials LLC, on NSF SBIR/STTR Phase I (NSF 22-551) for “True 3D additive manufacturing” (October 2022–March 2023; \$80,000).

## Articles Published

Entered into PubMed August 11–September 7. Titles link to PubMed abstracts, where full-text links are available

1. Deek MP, Van der Eecken K, Sutera P, Deek RA, Fonteyne V, Mendes AA, Decaestecker K, Kiess AP, Lumen N, Phillips R, De Bruycker A, **Mishra M, Rana Z, Molitoris J**, Lambert B, Delrue L, Wang H, Lowe K, Verbeke S, Van Dorpe J, Bultijnck R, Villeirs G, De Man K, Ameye F, Song DY, DeWeese T, Paller CJ, Feng FY, Wyatt A, Pienta KJ, Diehn M, **Bentzen SM**, Joniau S, Vanhaverbeke F, De Meerleer G, Antonarakis ES, Lotan TL, Berlin A, Siva S, Ost P, **Tran PT**. [Long-term outcomes and genetic predictors of response to metastasis-directed therapy versus observation in oligometastatic prostate cancer: Analysis of STOMP and ORIOLE trials.](#) *J Clin Oncol.* 2022 Aug 24:JCO2200644.
2. Evans SB, Blitzblau RC, Chapman CH, Chollet-Lipscomb C, Deville C, Ford E, Gibbs IC, Howell K, Peters GW, Ponce SB, Seldon C, Spector-Bagdady K, Tarbell N, Terezakis S, **Vyfhius MAL**, Wright J, Zietman A, Jagsi R. [Restricted access to abortion, the Dobbs ruling, and radiation oncology: Standing united against reproductive injustice.](#) *Int J Radiat Oncol Biol Phys.* 2022 Aug 10:S0360-3016(22)02598-6.
3. Muir B, Culbertson W, Davis S, Kim GY, **Lee SW**, Lowenstein J, Renaud J, Sarfehnia A, Siebers J, Tantot L, Tolani N. [AAPM WGTG51 Report 374: Guidance for TG-51 reference dosimetry.](#) *Med Phys.* 2022 Aug 24. Online ahead of print.
4. Pan L, Chen X, **Rassool FV**, Li C, Lin J. [LLL12B, a novel small-molecule STAT3 inhibitor, induces apoptosis and suppresses cell migration and tumor growth in triple-negative breast cancer cells.](#) *Biomedicines.* 2022 Aug 18;10(8):2003.
5. Shah C, **Mohindra P**, Vapiwala N, Campbell S, Bates JE, Mattes MD, Sim A, Fontanilla HP, Fields E, Pinnix CC, Haffty B. [The American Society for Radiation Oncology Workforce Statement.](#) *Int J Radiat Oncol Biol Phys.* 2022 Aug 17:S0360-3016(22)03135-2.
6. Waxer JF, Wong K, **Modiri A**, Charpentier AM, Moiseenko V, Ronckers CM, Taddei PJ, Constine LS, Sprow G, Tamrazi B, MacDonald S, Olch AJ. [Risk of cerebrovascular events among childhood and adolescent patients receiving cranial radiation therapy: A pediatric normal tissue effects in the clinic normal tissue outcomes comprehensive review.](#) *Int J Radiat Oncol Biol Phys.* 2022 Sep 1:S0360-3016(22)00643-5
7. **Xu H, Cheston SB, Gopal A, Zhang B, Chen S**, Yu S, **Hall A, Dudley S**. [A study of skin marker alignment using different diamond-shaped light fields for prone breast external-beam radiation therapy.](#) *J Appl Clin Med Phys.* 2022 Aug 27:e13772.
8. **Yi B, Mossahebi S, Modiri A, Nichols EM, Guerrero M, Lamichhane N, Mohindra P**. [Proton arc therapy vs interstitial HDR brachytherapy in gynecologic cancer with parametrial/pelvic side wall extension.](#) *Int J Part Ther.* 2022 Jun 28;9(2):31–39.

## 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](mailto: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 new 10/05/22	09/21/22	09/26/22	09/28/22
R21 new 10/16/22	10/03/22	10/06/22	10/10/22
R01 resub 11/05/22	10/24/22	10/27/22	10/31/22
R21 resub 11/16/22	11/02/22	11/07/22	11/09/22