

# Department of Radiation Oncology Monthly Research Update: November 2024

## Record Month for Grant/Contract Submissions

### NOVEMBER AT A GLANCE TOTALS

#### Clinical trials

<b>Total enrolled</b>	24
<b>GCC, other</b>	1
<b>NRG, NCI, co-ops</b>	2
<b>PCG, other registries</b>	21

#### Grants and contracts

<b>New awards</b>	0
<b>Submitted</b>	11

#### Articles published

7

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)

November was a record-setting month for the staff of the Radiation Oncology Department Office of Research Administration (DORA), which facilitated the submission of 11 grant and contract submissions from faculty, totaling more than \$12 million in potential extramural research funding (see below). "This is clearly a period of increased activity and interest in research, with faculty identifying promising funding mechanisms in federal support, private initiatives, and industry investment," said Miek Segers, Research Program Administrator. "This trend is likely to continue, and we urge anyone planning to submit research proposals to let us know as early as possible so that we can begin the sometimes challenging process of making sure that all materials are appropriately prepared and that SOM timelines are met."

## Grants and Contracts

### Submitted

- **Phuoc Tran, MD, PhD, MPI/PD**, to NIH (PA-23-189; Administrative Supplement) for ROBIN Oligomet U54-CA273956, "Research supplement to promote diversity in health-related research" (\$139,299).
- **Phuoc Tran, MD, PhD**, lead MPI/PD, resubmission to NIH (R01-CA295761) for "Quantitative spatial analysis of immune-mediated response to chemo-immune-radiotherapy from muscle-invasive bladder cancer clinical trials" (\$3,891,384).
- **Mark Mishra, MD, PI/PD**, to NIH NCI for Research Specialist (Clinician Scientist) Award (R50; PAR-24-274) (\$387,628).
- **Erika Davies, PhD, PI/PD**, for a subaward with SignaBlok, Inc., to NIH Novel Approaches for Radiation Biodosimetry and Medical Countermeasure (MCM) Development program (R21; RFA-AI-24-041) for "Novel MCM to mitigate potentially lethal acute radiation syndrome" (\$114,473).
- **Erika Davies, PhD, PI/PD**, for a subaward with Cayuga Biotech, Inc. to NIH Novel Approaches for Radiation Biodosimetry and MCM Development program (R21; RFA-AI-24-041) for "Preclinical evaluation of CAY001 as a novel treatment for acute radiation sickness thrombocytopenic hemorrhage" (\$292,198).
- **France Carrier, PhD, PI/PD**, to NIH Novel Approaches for Radiation Biodosimetry and MCM Development program (R21; RFA-AI-24-041) for "Investigating SCGB1A1/CC10 protein as a potential DEARE-lung mitigator" (\$316,443).
- **Amit Sawant, PhD**, lead MPI/PI, renewal of NCI Investigator-Initiated Early Phase Clinical Trials for Cancer Treatment and Diagnosis award (R01 CA202761; PAR-24-085) for "The INSPIRE trial: Integrating serial and parallel interconnected respiratory elements for sparing post-radiotherapy pulmonary function" (\$3,794,294).
- **Lei Ren, PhD, PI/PD**, for a subaward with Emory University for an NIH Research Project Grant (Parent R01; PA-20-185) for "Sample-efficient federated learning for pancreas cancer early diagnosis with model explanation guidance" (\$311,000.00).
- **Arezoo Modiri, PhD**, lead MPI/PD, resubmission to NIH Clinical Characterization of Cancer Therapy-Induced Adverse Sequelae and Mechanism-Based Interventional Strategies program (R01; PAR-21-329) for "Risk-based treatment planning tool for improving outcomes and well-being in lymphoma radiotherapy" (\$2,397,811).
- **Arezoo Modiri, PhD, PI/PD**, to NIH/NCI for Research Software Engineer Award (R50; RFA-OD-24-011) for "Open-source volumetric motion management tool for thoracic radiation therapy" (\$433,603).
- **Byong Yong Yi, PhD, PI/PD**, for a subaward with Wearabledose, Inc., to the National Science Foundation Small Business Innovation Research/Small Business Technology Transfer Phase I Program (24-579) for " Submillimeter tissue equivalent polymer dosimeter" (\$64,483.00).

## Clinical Trial Enrollment

- 20 patients at MPTC on the **Proton Collaborative Group Registry**.
- 1 patient enrolled at MPTC on the **DTT HUD**.
- 1 patient at BWMC on **NRG GU010**: Parallel phase III randomized trials of genomic risk stratified unfavorable intermediate risk prostate cancer: De-intensification and intensification clinical trial evaluation (GUIDANCE).
- 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-R\*).
- 1 patient enrolled at MPTC on **GCC 19140**: Pilot study of laser interstitial thermal therapy followed by hypofractionated radiation therapy for recurrent high-grade gliomas.

## Articles Published

Entered into PubMed November 8–December 11. Titles link to PubMed abstracts, many of which contain full-text links.

1. Boissonneault A, O'Hara NN, Slobogean GP, Meyer A, Maceroli M, Sciadini MF, Nascone JW, Gage MJ, Lin J, Hanasoge S, Shelton J, **Rana Z, Mishra M**, O'Toole RV. [The use of external beam radiation therapy for heterotopic ossification prophylaxis after surgical fixation of acetabular fractures: A randomized controlled trial.](#) *J Orthop Trauma.* 2024 Nov 7. Online ahead of print.
2. Kaiser A, Siddiqui MM, Bosley-Smith J, Wang S, Aryankalayil J, **Mishra MV**, Ryan AS, D'Adamo CR. [Weight loss, pathological changes, and inflammatory effects from a short-term ketogenic diet in overweight and obese men with untreated prostate cancer on active surveillance.](#) *Nutrients.* 2024 Oct 30;16(21):3716.
3. Ng VY, Sahlani MN, Fogel JD, Chiu AK, Kallen ME, Davis D, Snider J, **Regine W, Bentzen SM**, Sausville E. [Results of an integrated phase I/II prospective clinical trial \(NEXIS\) for neoadjuvant anti-PD-L1 \(durvalumab\) and anti-CTLA-4 \(tremelimumab\) with radiation for high-risk soft-tissue sarcoma of the trunk and extremities.](#) *Cureus.* 2024 Oct 22;16(10):e72119.
4. Onal C, Elmali A, Erbay G, Demirhan B, Sutera P, Deek MP, **Tran PT**, Guler OC. [Evaluating the prognostic impact of apparent diffusion coefficient in definitive radiotherapy for Gleason score 7 prostate cancer patients.](#) *Prostate.* 2024 Dec 1. Online ahead of print.
5. Patel KR, Nguyen PL, Proudfoot JA, Liu Y, Pra AD, Spratt DE, Pollack A, Sandler HM, Efstathiou JA, Lawton C, Simko JP, Rosenthal SA, Zeitzer KL, Mendez LC, Hartford AC, Hall WA, Desai AB, Pugh SL, Davicioni E, **Tran PT**, Feng FY. [Biopsy-based basal-luminal subtyping classifier in high-risk prostate cancer: A combined analysis of the NRG Oncology/RTOG 9202, 9413, and 9902 phase 3 trials.](#) *Eur Urol Oncol.* 2024 Nov 13:S2588-9311(24)00246-3. Online ahead of print.
6. **Stojanovic L, Abbotts R, Tripathi K**, Coon CM, Rajendran S, Farid EA, Hostetter G, Guarnieri JW, Wallace DC, Liu S, Wan J, Calendo G, **Marker R, Gohari Z**, Inayatullah MMA, Tiwari VK, Kader T, Santagata S, Drapkin R, Kommos S, Pfisterer J, Konecny GE, Coopergard R, Issa JP, Winterhoff BJN, Topper MJ, Sandusky GE, Miller KD, Baylin SB, Nephew KP, **Rassool FV**. [ZNFx1 is a novel master regulator in epigenetically-induced pathogen mimicry and inflammasome signaling in cancer.](#) *bioRxiv* [Preprint]. 2024 Oct 21:2024.
7. Wang JH, Deek MP, Mendes AA, Song Y, Shetty A, Bazzyar S, Van der Eecken K, Chen E, Showalter TN, Royce TJ, Todorovic T, Huang HC, Houck SA, Yamashita R, Kiess AP, Song DY, Lotan T, DeWeese T, Marchionni L, **Ren L, Sawant A**, Simone N, Berlin A, Onal C, Esteva A, Feng FY, **Tran PT**, Sutera P, Ost P. [Validation of an artificial intelligence-based prognostic biomarker in patients with oligometastatic castration-sensitive prostate cancer.](#) *Radiother Oncol.* 2024 Nov 6;202:110618. Online ahead of print.

## Important Dates for Upcoming Funding Submissions

Below is an updated calendar with firm due dates for upcoming major standard NIH deadlines (RFA/PA dates may differ). Contact the Department Office of Research Administration ([msegers@som.umaryland.edu](mailto:msegers@som.umaryland.edu)) ASAP if you plan to submit any funding proposal, regardless of funder.

NIH deadline	DORA budget, prelim materials	Dean/SOM prelim materials	FINAL Dean/SOM/SPA
R01/U01 New Feb 5	1/23/2025	1/27/2025	1/29/2025
R21 New Feb 16	2/05/2025	2/07/2025	2/09/2025
R01/U01 Resub March 5	02/20/2025	2/24/2025	2/26/2025
R21 Resub March 16	03/04/2025	03/06/2025	3/10/2025