

## Department of Radiation Oncology Peer-Reviewed Publications July 1, 2020, through June 30, 2021

1. Ali O, Challa SR, **Siddiqui OM**, **Ali S**, Kim RE. A rare cause of esophagopleural fistula due to intensity-modulated proton therapy: a case report and review of literature. *Clin J Gastroenterol.* 2021 Apr 27. Online ahead of print.
2. Amin NP, Kim SM, **Lasio G**, Zhou J, **Romar L**, **Shipman K**, **Dukes K**, Amin NP. Incidental coronary artery calcium on breast radiation therapy planning scans identifies patients for cardiac preventive therapy. *Am J Clin Oncol.* 2020;43(11):826-831.
3. Arons D, **Alexander GS**, **Koroulakis AI**, **Zakhary MJ**, **Molitoris JK**, Miller RC, **Regine WF**, **Witek ME**. Time to treatment analysis of head and neck cancer patients undergoing proton therapy. *Am J Otolaryngol Head Neck Surg.* 2020;3(8):article 1116.
4. Awan MJ, Gittleman H, Barnholtz-Sloan J, Machtay M, Nguyen-Tan PF, Rosenthal DI, Schultz C, Huth BJ, Thorstad WL, Frank SJ, **Kim H**, Foote RL, Lango MN, Shenouda G, **Suntharalingam M**, Harris J, Zhang Q, Le QT, Yao M; NRG Oncology Group. Risk groups of laryngeal cancer treated with chemoradiation according to nomogram scores - A pooled analysis of RTOG 0129 and 0522. *Oral Oncol.* 2021 May;116:105241.
5. Bakirci E, Schaefer N, Dahri O, Hrynevich A, **Strissel P**, Strick R, Dalton PD, Villmann C. Melt electrowritten in vitro radial device to study cell growth and migration. *Adv Biosyst.* 2020 Oct;4(10):e2000077.
6. Barbari C, Fontaine T, Parajuli P, **Lamichhane N**, Jakubski S, Lamichhane P, Deshmukh RR. Immunotherapies and combination strategies for immuno-oncology. *Int J Mol Sci.* 2020 Jul 15;21(14):5009.
7. Barry KH, Mohanty K, Erickson PA, Wang D, Shi J, Rose G, Cellini A, Clark K, Ambulos N Jr, Yin J, Yan L, Poulin M, Meyer A, Zhang Y, **Bentzen SM**, Burke A, Hussain A, Berndt SI. MYC DNA methylation in prostate tumor tissue is associated with Gleason score. *Genes (Basel).* 2020 Dec 24;12(1):E12.
8. **Bentzen SM**, Haviland JS, Yarnold JR. Targeted intraoperative radiotherapy for early breast cancer. *JAMA Oncol.* 2020 Oct 1;6(10):1636.
9. Bitterman DS, Winter KA, Hong TS, Fuchs CS, **Regine WF**, Abrams RA, Safran H, Hoffman JP, Benson AB 3rd, Kasunic T, Mulcahy M, Strauss JF, DiPetrillo T, Stella PJ, Chen Y, Plastaras JP, Crane CH. Impact of diabetes and insulin use on prognosis in patients with resected pancreatic cancer: An ancillary analysis of NRG Oncology RTOG 9704. *Int J Radiat Oncol Biol Phys.* 2021 Jan 1;109(1):201-211.
10. Boerma M, Davis CM, **Jackson IL**, Schae D, Williams JP. All for one, though not one for all: team players in normal tissue radiobiology. *Int J Radiat Biol.* 2021 Jul 1:1-21. Online ahead of print.
11. Breen WG, Jethwa KR, Yu NY, Spears GM, Harmsen WS, **Miller RC**, Ashman JB, Rule WG, Sio TT, Neben-Wittich MA, Haddock MG, Mahipal A, Truty MJ, Hallemeier CL, Merrell KW. Patient-reported quality of life before and after chemoradiation for intact pancreas cancer: A prospective registry study. *Pract Radiat Oncol.* 2021;11(1):e63-e69.
12. Brown PD, Chung C, Liu DD, **McAvoy S**, Grosshans D, Al Feghali K, Mahajan A, Li J, McGovern SL, McAleer MF, Ghia AJ, Sulman EP, Penas-Prado M, de Groot JF, Heimberger AB, Wang J, Armstrong TS, Gilbert MR, Guha-Thakurta N, Wefel JS. A prospective phase II randomized trial of proton radiotherapy vs. intensity modulated radiotherapy for patients with newly diagnosed glioblastoma. *Neuro Oncol.* 2021 Feb 27;noab040. Online ahead of print.
13. Bryant CM, Henderson RH, Nichols C, Mendenhall WM, Hoppe BS, Vargas CE, Daniels TB, Choo CR, Parikh RR, Giap H, Slater JD, Vapiwala N, Barrett W, Nanda A, **Mishra MV**, Choi S,

- Liao JJ, Mendenhall NP. Consensus statement on proton therapy for prostate cancer. *Int J Part Ther*. 2021 Apr 12.
14. Cardenas CE, Beadle BM, Garden AS, Skinner HD, Yang J, Rhee DJ, **McCarroll RE**, Netherton TJ, Gay SS, Zhang L, Court LE. Generating high-quality lymph node clinical target volumes for head and neck cancer radiation therapy using a fully automated deep learning-based approach. *Int J Radiat Oncol Biol Phys*. 2021 Mar 1;109(3):801–812.
  15. Carter CL, Parker GA, **Hankey KG**, **Farese AM**, **MacVittie TJ**, Kane MA. MALDI-MSI spatially maps N-glycan alterations to histologically distinct pulmonary pathologies following irradiation. *Sci Rep*. 2020 Jul 14;10(1):11559.
  16. **Caturegli I**, Molin MD, Laird C, **Molitoris JK**, Bafford AC. Limited role for routine restaging after neoadjuvant therapy in locally advanced rectal cancer. *J Surg Res*. 2020 Jul 23;256:317–327. Online ahead of print.
  17. Chang Y, Jiang Z, Segars WP, Zhang Z, Lafata K, Cai J, Yin FF, **Ren L**. A generative adversarial network (GAN)-based technique for synthesizing realistic respiratory motion in the extended cardiac-torso (XCAT) phantoms. *Phys Med Biol*. 2021 May 31;66(11).
  18. Chaurasia AR, Page BR, Walker AJ, Salerno K, Camphausen K, **Kwok Y**, Bajaj GK, Ambrocio D, Erickson D. Lessons to learn from a successful virtual mock oral examination pilot experience. *Adv Radiat Oncol*. 2021;6(1):100534.
  19. Chen R, Yan T, Ventikos Y, **Zhou J**, eds. (2021). Computational Methods for Translational Brain-Behavior Analysis. Lausanne: Frontiers Media SA. doi: 10.3389/978-2-88966-897-7
  20. **Cherng HR**, Rice SR, Hamza M, Murali S, Rosenblatt P, Tkaczuk KHR, Bellavance E, **Cheston S**, Amin N, **Nichols E**. Patterns of failure in triple negative breast cancer patients in an urban, predominately black population. *J Racial Ethn Health Disparities*. 2020 Sept 4. Online ahead of print.
  21. Clausen MM, Vogelius IR, Kjær A, **Bentzen SM**. Multiple testing, cut-point optimization, and signs of publication bias in prognostic FDG-PET imaging studies of head and neck and lung cancer: A review and meta-analysis. *Diagnostics (Basel)*. 2020 Dec 1;10(12):1030.
  22. Cohen EP, **Farese AM**, Parker GA, Kane MA, **MacVittie TJ**. Lack of cellular inflammation in a non-human primate model of radiation nephropathy. *Health Phys*. 2020 Nov;119(5):588-593.
  23. Das A, Mahapatra S, Bandyopadhyay D, **Samanta S**, Chakraborty S, Philpotts LL, Jahangir E, Roy B. Bleeding with vascular endothelial growth factor tyrosine kinase inhibitor: A network meta-analysis. *Crit Rev Oncol Hematol*. 2021 Jan;157:103186.
  24. **Decesaris C**, **Molitoris JK**. Radiation Therapy in the Management of Pancreatic Cancer. *Imaging Diagnostics in Pancreatic Cancer*. Springer Publishing. 2021.
  25. **DeCesaris C**, Rao A. Characterizing the risk of vertebral body fractures in patients receiving chemoradiotherapy for esophageal cancer. *JAMA Netw Open*. 2020 Sept 1;3(9):e2014340.
  26. **DeCesaris CM**, **Berger M**, Choi JI, Carr SR, Burrows WM, **Regine WF**, Simone CB II, **Molitoris JK**. Pathologic complete response (pCR) rates and outcomes after neoadjuvant chemoradiotherapy with proton or photon radiation for adenocarcinomas of the esophagus and gastroesophageal junction. *J Gastrointest Oncol*. 2020 Aug;11(4): 663–673.
  27. **DeCesaris CM**, **Pollock A**, **Zhang B**, **Poirier Y**, **Kowalski E**, Paulosky K, **Mishra MV**, **Nichols E**. Assessing the need for adjusted organ-at-risk planning goals for patients undergoing adjuvant radiation therapy for locally advanced breast cancer with proton radiation. *Pract Radiat Oncol*. 2021;11(2):108-118.
  28. Donington JS, Paulus R, Edelman MJ, Krasna MJ, Le QT, **Suntharalingam M**, Loo BW Jr., Bradley JD, NRG Oncology Lung Group. Resection following concurrent chemotherapy and high-dose radiation for stage IIIA non-small cell lung cancer. *J Thorac Cardiovasc Surg*. 2020 Nov;160(5):1331-1345.
  29. Emadi A, Chua JV, Talwani R, **Bentzen SM**, Baddley J. Safety and efficacy of imatinib for hospitalized adults with COVID-19: A structured summary of a study protocol for a randomised controlled trial. *Trials*. 2020 Oct 28;21(1):897.

30. Fung CY, Vapiwala N, Mattes MD, **Mohindra P**, Shah C, Yechieli R, Truong MT, Sanders T, Arnone A, Royce TJ, Ennis RD. US radiation oncologists (re)defined: An American Society for Radiation Oncology scope of practice study. *Int J Radiat Oncol Biol Phys.* 2021;109(2):335-343.
31. Glaser SM, **Mohindra P**, Mahantshetty U, Beriwal S. Complications of intracavitary brachytherapy for gynecologic cancers and their management: A comprehensive review. *Brachytherapy.* 2021 Jan 19:S1538-4721(20)30255-5. Online ahead of print.
32. Gogineni E, Cai H, Carillo D, **Rana Z**, Bloom B, Potters L, Gaballa H, Ghaly M. Computed tomography-based flap brachytherapy for non-melanoma skin cancers of the face. *J Contemp Brachytherapy.* 2021;13(1):51-58.
33. Gogineni E, **Rana Z**, Soberman D, Sidiqi B, D'Andrea V, Lee L, Potters L, Parashar B. Biochemical control and toxicity outcomes of SBRT vs LDR brachytherapy in the treatment of low and intermediate risk prostate cancer. *Int J Radiat Oncol Biol Phys.* 2021;109(5):1232-1242.
34. Gogineni E, **Rana Z**, Vempati P, Karten J, Sharma A, Taylor P, Pereira L, Frank D, Paul D, Seetharamu N, Ghaly M. Stereotactic body radiotherapy as primary treatment for elderly and medically inoperable patients with head and neck cancer. *Head Neck.* 2020 Oct;42(10):2880–2886.
35. Gogineni E, **Rana Z**, Wotman M, Karten J, Riegel A, Marrero M, Maduro L, Kamdar D, Frank D, Paul D, Seetharamu N, Ghaly M. Impact of stereotactic body radiation therapy on geriatric assessment and management for older patients with head and neck cancer using G8. *J Geriatr Oncol.* 2021 Jan;12(1):122–127.
36. **Hamza M**, Rice S, **Lamichhane N**, **Chen S**, **Mohindra P**. Conformal radiotherapy in patients with cardiovascular implantable electronic devices: Proposed practical implementation of the TG-203 Risk-Stratified Interrogation Schedule. *Pract Radiat Oncol.* 2021;11(4):e402-e414.
37. Han JE, Chang J, Rosen L, Hartsell W, Tsai H, Chen J, **Mishra MV**, Krauss D, Choi IJ, Simone CB, Hasan S. Treatment interruptions affect biochemical failure rates in prostate cancer patients treated with proton beam therapy: Report from the multi-institutional proton collaborative group registry. *Clin Transl Radiat Oncol.* 2020 Oct 22;25:94–101.
38. Holtzman NG, Xie H, **Bentzen S**, Kesari V, Bukhari A, El Chaer F, Lutfi F, Siglin J, Hutnick E, Gahres N, Ruele K, Ahmad H, Shanholtz C, Kocoglu MH, Badros AZ, Yared JA, Hardy NM, Rapoport AP, Dahiya S. Immune effector cell-associated neurotoxicity syndrome after chimeric antigen receptor T-cell therapy for lymphoma: Predictive biomarkers and clinical outcomes. *Neuro Oncol.* 2021;23(1):112-121.
39. Huang W, Yu J, Liu T, Defnet AE, Zalesak S, Farese AM, **MacVittie TJ**, Kane MA. Proteomics of non-human primate plasma after partial-body radiation with minimal bone marrow sparing. *Health Phys.* 2020 Nov;119:621-632.
40. Huang W, Yu J, Liu T, Tudor G, Defnet AE, Zalesak S, Kumar P, Booth C, Farese AM, **MacVittie TJ**, Kane MA. Proteomic evaluation of the natural history of the acute radiation syndrome of the gastrointestinal tract in a non-human primate model of partial-body irradiation with minimal bone marrow sparing includes dysregulation of the retinoid pathway. *Health Phys.* 2020 Nov;119:604-620.
41. **Jackson IL**, Gurung G, Ayompe E, **Rose Fown E**, **Triesler S**, **Mali B**, Casildo A, **Gibbs A**, **Poirier Y**, Cohen E, **Newman D**, **Vujaskovic Z**. Characterization of the hemorrhagic syndrome in the New Zealand White rabbit model following total body irradiation. *Int J Radiat Biol.* 2020 Oct 16:1-13.
42. Jerezek-Fossa BA, Marvaso G, Zaffaroni M, Gugliandolo SG, Zerini D, Corso F, Gandini S, Alongi F, Bossi A, Cornford P, De Bari B, Fonteyne V, Hoskin P, Pieters BR, Tree AC, Arcangeli S, Fuller DB, Franzese C, Hannoun-Levi JM, Janoray G, Kerkmeijer L, **Kwok Y**, Livi L, Loi M, Miralbell R, Pasquier D, Pinkawa M, Scher N, Scorsetti M, Shelan M, Toledano A, van As N, Vavassori A, Zilli T, Pepa M, Ost P; on the behalf of the European Society for Radiotherapy, Oncology Advisory Committee on Radiation Oncology Practice (ESTRO ACROP). Salvage stereotactic body radiotherapy (SBRT) for intraprostatic relapse after prostate cancer radiotherapy: An ESTRO ACROP Delphi consensus. *Cancer Treat Rev.* 2021;98:102206.

43. Jiang Z, Yin FF, Ge Y, **Ren L**. Enhancing digital tomosynthesis (DTS) for lung radiotherapy guidance using patient-specific deep learning model. *Phys Med Biol*. 2021 Jan 26;66(3):035009.
44. Kaushal S, Khan A, Deatrick K, Ng DK, Snyder A, Shah A, Caceres LV, Bacallao K, Bembea M, Everett A, Zhu J, Kaczorowski D, Madathil R, Tabatabai A, Rosenthal G, Brooks A, Longsomboon B, Mishra R, Saha P, Desire Y, Saltzman R, **Hankey KG**, Arias SA, Ayoade F, Tovar JA, Lamazares R, Gershengorn HB, Fontaine MJ, Klein M, Mullins K, Gunasekaran M, Loebe M, Karakeshishyan V, Jayaweera DT, Atala A, Ghodsizad A, Hare JM. Intravenous mesenchymal stem cells in extracorporeal oxygenation patients with severe COVID-19 acute respiratory distress syndrome. *medRxiv*. 2020 Nov 11.10.15.20122523.
45. Keall PJ, **Sawant A**, Berbeco RI, Booth JT, Cho B, Cerviño LI, Cirino E, Dieterich S, Fast MF, Greer PB, Munck Af Rosenschöld P, Parikh PJ, Poulsen PR, Santanam L, Sherouse GW, Shi J, Stathakis S. AAPM Task Group. The safe clinical implementation of MLC tracking in radiotherapy. *Med Phys*. 2021;48(5):e44-e64.
46. Khairnar R, Pugh SL, Sandler HM, Lee WR, Villalonga Olives E, Mullins CD, Palumbo FB, Bruner DW, Shaya FT, **Bentzen SM**, Shah AB, Malone SC, Michalski JM, Dayes IS, Seaward SA, Albert M, Currey AD, Pisansky TM, Chen Y, Horwitz EM, DeNittis AS, Feng FY, **Mishra MV**. Mapping expanded prostate cancer index composite to EQ5D utilities to inform economic evaluations in prostate cancer: Secondary analysis of NRG/RTOG 0415. *PLoS One*. 2021 Apr 14;16(4):e0249123.
47. Kong FS, Moiseenko V, Zhao J, Milano MT, Li L, Rimner A, Das S, Li XA, Miften M, Liao Z, Martel M, **Bentzen SM**, Jackson A, Grimm J, Marks LB, Yorke E. Organs at risk considerations for thoracic stereotactic body radiation therapy: What is safe for lung parenchyma? *Int J Radiat Oncol Biol Phys*. 2021 May 1;110(1):172-187.
48. Kopchick B, **Xu H**, Niu Y, **Becker S**, Qiu X, **Yu C**. Technical Note: Dosimetric feasibility of lattice radiotherapy for breast cancer using GammaPod. *Med Phys*. 2020;47(9):3928-3934.
49. **Koroulakis A**, Jamal Z, Agarwal M. Anatomy, head and neck, lymph nodes. 2020 Dec 16. In: *StatPearls* [Internet]. Treasure Island (FL): StatPearls Publishing; 2020 Jan.
50. **Koroulakis A**, **Molitoris J**, **Kaiser A**, Hanna N, Bafford A, Jiang Y, Bentzen S, Regine WF. Reirradiation for rectal cancer using pencil beam scanning proton therapy: A single institutional experience. *Adv Radiat Oncol*. 2020;6(1):100595.
51. **Kowalski ES**, Remick JS, **Sun K**, **Alexander GS**, Khairnar R, Morse E, Chergn HR, Berg LJ, **Poirier Y**, **Lamichhane N**, **Becker S**, **Chen S**, **Molitoris JK**, **Kwok Y**, **Regine WF**, **Mishra MV**. Immune checkpoint inhibition in patients treated with stereotactic radiation for brain metastases. *Radiat Oncol*. 2020 Oct 27;15(1):245.
52. Kumar P, Wang P, Tudor G, Booth C, **Farese AM**, **MacVittie TJ**, Kane MA. Evaluation of plasma biomarker utility for the gastrointestinal acute radiation syndrome in non-human primates after partial body irradiation with minimal bone marrow sparing through correlation with tissue and histological analyses. *Health Phys*. 2020;119(5):594-603.
53. Laack NN, Pafundi D, Anderson SK, Kaufmann T, Lowe V, Hunt C, Vogen D, Yan E, Sarkaria J, Brown P, Kizilbash S, Uhm J, Ruff M, **Zakhary M**, Zhang Y, Seaberg M, Wan Chan Tseung HS, Kabat B, Kemp B, Brinkmann D. Initial Results of a Phase 2 Trial of 18F-DOPA PET-Guided Dose-Escalated Radiation Therapy for Glioblastoma. *Int J Radiat Oncol Biol Phys*. 2021 Aug 1;110(5):1383-1395. doi: 10.1016/j.ijrobp.2021.03.032. Epub 2021 Mar 23.
54. Luetkens T, Metcalf R, Planelles V, Zheng Y, Larragoite ET, Spivak ES, Spivak AM, Steinbach M, Blaylock RC, Avila SV, **Hankey KG**, Martins TB, Slev PR, Manuel HD, Sajadi M, Rapoport AP, Atanackovic D. Successful transfer of anti-SARS-CoV-2 immunity using convalescent plasma in an MM patient with hypogammaglobulinemia and COVID-19. *Blood Adv*. 2020 Oct 13;4(19):4864-4868.
55. Lutfi F, Holtzman N, Siglin J, Bukhari A, Mustafa Ali M, Kim D, Sanchez-Petitto G, Gottlieb D, Ruehle K, Hutnick E, Gahres N, **Hankey K**, Lee S, Kocoglu M, Yared J, Hardy N, Rapoport A,

- Dahiya S. Chimeric antigen receptor T-cell therapy after allogeneic stem cell transplant for relapsed/refractory large B-cell lymphoma. *Br J Haematol*. 2021;192(1):212-216.
56. **MacVittie TJ, Farese AM, Parker GA, Bennett AW, Jackson WE 3<sup>rd</sup>**. Acute radiation-induced lung injury in the non-human primate: A review and comparison of mortality and co-morbidities using models of partial-body irradiation with marginal bone marrow sparing and whole thorax lung irradiation. *Health Phys*. 2020;119(5):559-587.
57. Maggiore RJ, Zahrieh D, McMurray RP, Feliciano JL, Samson P, **Mohindra P**, Chen H, Wong ML, Lafky JM, Jatoi A, Le-Rademacher JG. Toxicity and survival outcomes in older adults receiving concurrent or sequential chemoradiation for stage III non-small cell lung cancer in Alliance trials (Alliance A151812). *J Geriatr Oncol*. 2020;12(4):563-571.
58. McDonald BA, **Vedam S**, Yang J, Wang J, Castillo P, Lee B, Sobremonte A, Ahmed S, Ding Y, Mohamed ASR, Balter P, Hughes N, Thorwarth D, Nachbar M, Philippens MEP, Terhaard CHJ, Zips D, Böke S, Awan MJ, Christodouleas J, Fuller CD; MR-Linac Consortium Head and Neck Tumor Site Group and the Joint Head and Neck Radiotherapy-MRI Development Cooperative. Initial feasibility and clinical implementation of daily MR-guided adaptive head and neck cancer radiotherapy on a 1.5T MR-linac system: Prospective R-IDEAL 2a/2b systematic clinical evaluation of technical innovation. *Int J Radiat Oncol Biol Phys*. 2021;109(5):1606-1618.
59. Miller B, Vunnam R, Mesubi O, Smith MF, Chen W, Mahat JB, **Bentzen SM**, See V, Restrepo A, Shorofsky S, Dilsizian V, Dickfeld TL. Metabolic heterogeneous zone assessed by <sup>18</sup>F FDG-PET is predictive of postablation mortality in patients with ventricular tachycardia. *J Cardiovasc Electrophysiol*. 2021 Jun 23. Online ahead of print.
60. **Miller RC**, Tsai CJ. Scholarly publishing in the wake of COVID-19. *Int J Radiat Oncol Biol Phys*. 2020 Oct 1;108(2):491-495.
61. **Miller RC**, Tsai CJ. The year 2020 in review at ASTRO's Advances. *Adv Radiat Oncol*. 2020 Nov-Dec;5(6):1091-1092.
62. **Mishra MV**, Thayer WM, Janssen E, Hoppe B, **Eggleston C**, Bridges JFP. Patient preferences for reducing bowel adverse events following prostate radiotherapy. *PLoS One*. 2020 Jul 8;15(7):e0235616.
63. Mohan R, Liu AY, Brown PD, Mahajan A, Dinh J, Chung C, **McAvoy S**, McAleer MF, Lin SH, Li J, Ghia AJ, Zhu C, Sulman EP, de Groot JF, Heimberger AB, McGovern SL, Grassberger C, Shih H, Ellsworth S, Grosshans DR. Proton therapy reduces the likelihood of high-grade radiation-induced lymphopenia in glioblastoma patients: Phase II randomized study of protons vs. photons. *Neuro Oncol*. 2021;23(2):284-294.
64. **Molitoris JK, Alexander GS, Siddiqui O, Cohen J, Mishra MV, Rana Z**. High-risk, recurrent and oligometastatic prostate cancer: recent developments on the role of radiation. *Curr Opin Oncol*. 2021 May 1;33(3):238-243.
65. Moran BJ, **Koroulakis A, Decesaris C**, Braccioforte MH, Amin N, **Agarwal M**. Long-term outcomes of a prospective randomized trial of <sup>131</sup>Cs/<sup>125</sup>I permanent prostate brachytherapy. *Brachytherapy*. 2021;20(1):38-43.
66. Moses BS, McCullough S, Fox JM, Mott BT, **Bentzen SM**, Kim M, Tyner JW, Lapidus RG, Emadi A, Rudek MA, Kingsbury TJ, Civin CI. Antileukemic efficacy of a potent artemisinin combined with sorafenib and venetoclax. *Blood Adv*. 2021 Feb 9;5(3):711-724.
67. **Mossahebi S, Sabouri P**, Chen H, **Mundis M**, O'Neil M, **Maggi P, Polf JC**. Initial validation of proton dose calculations on SPR images from DECT in treatment planning system. *Int J Part Ther*. 2020 Nov 23;7(2):51-61.
68. **Nasser NJ**, Chernyak V, Shankar V, Garg M, Bodner W, Kalnicki S, Klein J. Predictors of prostate bed recurrence on magnetic resonance imaging in patients with rising prostate-specific antigen after radical prostatectomy. *Can Urol Assoc J*. 2021 Jan;15(1):E22-E28.
69. **Nasser NJ**, Fenig E, Klein J, Agbarya A. Maintaining consistent bladder filling during external beam radiotherapy for prostate cancer. *Tech Innov Patient Support Radiat Oncol*. 2021 Jan 30;17:1-4.

70. **Nichols EM, Guerrero M, McAvoy S, Biggins T, Yi B, Becker SJ.** Workflow guide to delivering a safe breast treatment using a novel stereotactic radiation delivery system. *J Radiosurg SBRT.* 2021;7(3):249-252.
71. Nowak RG, Liska TA, **Bentzen SM**, Kim E, Chipato T, Salata RA, Celentano DD, Morrison CS, Gravitt PE. Brief report: Herpes simplex virus type-2 shedding and genital ulcers during early HIV in Zimbabwean women. *J Acquir Immune Defic Syndr.* 2021 Jun 1;87(2):789-793.
72. Panthi R, **Maggi P**, Peterson S, Mackin D, **Polf J**, Beddar S. Secondary particle interactions in a Compton camera designed for in vivo range verification of proton therapy. *IEEE Trans Radiat Plasma Med Sci.* 2021;5(3):383-391.
73. Parzen JS, Hartsell W, Chang J, Apisarnthanarax S, **Molitoris J**, Durci M, Tsai H, Urbanic J, Ashman J, Vargas C, Stevens C, Kabolizadeh P. Hypofractionated proton beam radiotherapy in patients with unresectable liver tumors: multi-institutional prospective results from the Proton Collaborative Group. *Radiat Oncol.* 2020 Nov 4;15(1):255.
74. Patel NV, Yu NY, **Koroulakis A**, Diwanji T, **Sawant A**, Sio TT, **Mohindra P.** Proton therapy for thoracic malignancies: a review of oncologic outcomes. *Expert Rev Anticancer Ther.* 2021;21(2):177-191.
75. Patterson AM, Plett PA, Chua HL, Sampson CH, Fisher A, Feng H, Unthank JL, Miller SJ, Katz BP, **MacVittie TJ**, Orschell CM. Development of a model of the acute and delayed effects of high dose radiation exposure in Jackson diversity outbred mice: Comparison to inbred C57BL/6 mice. *Health Phys.* 2020 Nov;119:633-646.
76. Pfister DG, Spencer S, Adelstein D, Adkins D, Anzai Y, Brizel DM, Bruce JY, Busse PM, Caudell JJ, Cmelak AJ, Colevas AD, Eisele DW, Fenton M, Foote RL, Galloway T, Gillison ML, Haddad RI, Hicks WL, Hitchcock YJ, Jimeno A, Leizman D, Maghami E, Mell LK, Mittal BB, Pinto HA, Ridge JA, Rocco JW, Rodriguez CP, Shah JP, Weber RS, Weinstein G, **Witek M**, Worden F, Yom SS, Zhen W, Burns JL, Darlow SD. Head and Neck Cancers, Version 2.2020, NCCN Clinical Practice Guidelines in Oncology. *J Natl Compr Canc Netw.* 2020 Jul;18(7):873-898.
77. **Poirier Y, Becker S, Decesaris C**, Culberson W, Draeger E, Gerry AJ, Johnstone CD, Gibbs A, **Vujaskovic Z, Jackson IL.** The impact of radiation energy on dose homogeneity and organ dose in the Göttingen minipig total-body irradiation model. *Radiat Res.* 2020;194(5):544-556.
78. **Poirier Y**, Prado C, Prado K, Draeger E, **Jackson IL, Vujaskovic Z.** Use of a CT simulation and 3-D radiation therapy treatment planning system to develop and validate a total-body irradiation technique for the New Zealand White rabbit. *Int J Radiat Biol.* 2020 Sep 24:1-10. Online ahead of print.
79. Pollard-Larkin JM, Briere TM, Kudchadker RJ, Sadagopan R, Nitsch PL, Wang XA, Salehpour M, Wang J, **Vedam S**, Nelson CL, Sahoo N, Zhu XR, Court LE, Balter PA, Robinson IJ, Yang J, Howell RM, Followill DS, Kry S, Beddar SA, Martel MK. Our experience leading a large medical physics practice during the COVID-19 pandemic. *Adv Radiat Oncol.* 2021;6(4):100683.
80. Prabhu RS, Dhakal R, Vaslow ZK, Dan T, **Mishra MV**, Murphy ES, Patel TR, Asher AL, Yang K, Manning MA, Stern JD, Patel AR, Wardak Z, Woodworth GF, Chao ST, Mohammadi A, Burri SH. Preoperative radiosurgery for resected brain metastases: the PROPS-BM multicenter cohort study. *Int J Radiat Oncol Biol Phys.* 2021 May 29:S0360-3016(21)00666-0.
81. Prusator MT, Samson P, **Cammin J**, Robinson C, Cuculich P, Knutson NC, Goddu SM, Moore K, Hugo GD. Evaluation of motion compensation methods for non-invasive cardiac radioablation of ventricular tachycardia. *Int J Radiat Oncol Biol Phys.* 2021 Jul 1:S0360-3016(21)00842-7. Online ahead of print.
82. Puts G, Jarrett S, Leonard M, Matsangos N, Snyder D, Wang Y, Vincent R, Portney B, **Abbotts R, McLaughlin L**, Zalzman M, **Rassool F**, Kaetzel D. Metastasis suppressor NME1 modulates choice of double-strand break repair pathways in melanoma cells by enhancing alternative NHEJ while inhibiting NHEJ and HR. *Int J Mol Sci.* 2020 Aug 17;21(16):E5896.
83. **Nasser NJ**, Klein J, Fenig E, Agbarya A. Automatic localization of the prostatic urethra for image guided radiation therapy. *Tech Innov Patient Support Radiat Oncol.* 2021 Jun 11;19:1-6.

84. Nasser NJ. Applicator for cervical brachytherapy for MRI or CT guided therapy. *Tech Innov Patient Support Radiat Oncol.* 2021 Oct 30;20:23-27.
85. Ranjbar M, Sabouri P, Mossahebi S, Sawant A, Mohindra P, Lasio G, Topoleski LDT. Validation of a CT-based motion model with in-situ fluoroscopy for lung surface deformation estimation. *Phys Med Biol.* 2021;66(4):045035.
86. Rao AD, Sun K, Zhu M, Mossahebi S, Sabouri P, Houser T, Jatczak J, Zakhary M, Regine WF, Miller RC, Bentzen S, Mishra MV. Plan quality effects of maximum monitor unit constraints in pencil beam scanning proton therapy for central nervous system and skull base tumors. *Radiother Oncol.* 2021;160:18-24.
87. Rasmussen JH, Olin AB, Lelkaitis G, Hansen AE, Andersen FL, Johannesen HH, Kjaer A, Fischer BM, Specht L, Bentzen SM, von Buchwald C, Wessel I, Vogelius IR. Intratumor heterogeneity is biomarker specific and challenges the association with heterogeneity in multimodal functional imaging in head and neck squamous cell carcinoma. *Eur J Radiol.* 2021 Jun;139:109668.
88. Remick JS, Kowalski E, Samanta S, Choi S, Palmer JD, Mishra MV. Health-related quality of life and patient-reported outcomes in radiation oncology clinical trials. *Curr Treat Options Oncol.* 2020 Aug 29;21(11):87.
89. Rhee DJ, Jhingran A, Rigaud B, Netherton T, Cardenas CE, Zhang L, Vedam S, Kry S, Brock KK, Shaw W, O'Reilly F, Parkes J, Burger H, Fakie N, Trauernicht C, Simonds H, Court LE. Automatic contouring system for cervical cancer using convolutional neural networks. *Med Phys.* 2020 Nov;47(11):5648–5658.
90. Roberts DA, Sandin C, Vesanen PT, Lee H, Hanson IM, Nill S, Perik T, Lim SB, Vedam S, Yang J, Woodings SW, Wolthaus JWH, Keller B, Budgell G, Chen X, Li XA. Machine QA for the Elekta Unity system: A report from the Elekta MR-Linac Consortium. *Med Phys.* 2021;48(5):e67-e85.
91. Sabirzhanov B, Makarevich O, Barrett JP, Jackson IL, Glaser EP, Faden AI, Stoica BA. Irradiation-induced upregulation of miR-711 inhibits DNA repair and promotes neurodegeneration pathways. *Int J Mol Sci.* 2020 Jul 23;21(15):E5239.
92. Slagowski JM, Redler G, Malin MJ, Cammin J, Lobb EC, Lee BH, Sethi A, Roeske JC, Flores-Martinez E, Stevens T, Yenice KM, Green O, Mutic S, Aydogan B. Dosimetric feasibility of brain stereotactic radiosurgery with a 0.35 T MRI-guided linac and comparison versus a C-arm mounted linac. *Med Phys.* 2020;47(11):5455-5466.
93. Snider JW, Molitoris J, Shyu S, Diwanji T, Rice S, Kowalski E, Decesaris C, Remick JS, Yi B, Zhang B, Hall A, Hanna N, Ng VY, Regine WF. Spatially fractionated radiotherapy (grid) prior to standard neoadjuvant conventionally fractionated radiotherapy for bulky, high-risk soft tissue and osteosarcomas: Feasibility, safety, and promising pathologic response rates. *Radiat Res.* 2020;194(6):707-714.
94. Snider JW, Nichols EM, Mutaf YD, Chen S, Molitoris J, Diwanji T, Becker SJ, Feigenberg SJ. Reproducibility of a novel, vacuum-assisted immobilization for breast stereotactic radiotherapy. *J Appl Clin Med Phys.* 2021;22(3):8-15.
95. Solano-Gonzalez E, Coburn KM, Yu W, Wilson GM, Nurmammedov E, Kesari S, Chang ET, MacKerell AD, Weber DJ, Carrier F. Small molecules inhibitors of the heterogeneous ribonuclear protein A18 (hnRNP A18): a regulator of protein translation and an immune checkpoint. *Nucleic Acids Res.* 2021;49(3):1235-1246.
96. Sood A, Bivona L, Mahkzoumi Z, Hausner P, Miller K, Regine WF, Snider J, Ng VY. Beyond the dermis-high-risk invasive squamous cell carcinoma: a retrospective review. *J Wound Care.* 2020 Oct 2;29(10):556-561.
97. Sun L, Jiang Z, Chang Y, Ren L. Building a patient-specific model using transfer learning for four-dimensional cone beam computed tomography augmentation. *Quant Imaging Med Surg.* 2021 Feb;11(2):540-555.
98. Teng X, Chen Y, Zhang Y, Ren L. Respiratory deformation registration in 4D-CT/cone beam CT using deep learning. *Quant Imaging Med Surg.* 2021 Feb;11(2):737-748.

99. Thompson JA, Lubek JE, Amin N, Joy R, Dyalram D, Ord RA, Taylor RJ, Wolf JS, Mehra R, Cullen KJ, **Molitoris JK**, **Witek M**, Papadimitriou JC, Morales RE, Hatten KM. Impact of the novel coronavirus 2019 (COVID-19) pandemic on head and neck cancer care. *Otolaryngol Head Neck Surg.* 2021 Mar 30:1945998211004544. Online ahead of print.
100. Thomson DJ, Yom SS, Saeed H, El Naqa I, Ballas L, **Bentzen SM**, Chao ST, Choudhury A, Coles CE, Dover L, Guadagnolo BA, Guckenberger M, Hoskin P, Jabbour SK, Katz MS, Mukherjee S, Rembielak A, Sebag-Montefiore D, Sher DJ, Terezakis SA, Thomas TV, Vogel J, Estes C. Radiation fractionation schedules published during the COVID-19 pandemic: A systematic review of the quality of evidence and recommendations for future development. *Int J Radiat Oncol Biol Phys.* 2020 Oct 1;108(2):379–389.
101. Tseng YD, Hoppe BS, Dedeckova K, Patel CG, Hill-Kayser CE, Miller DM, Maity A, Mendenhall NP, Mailhot RB, Yock TI, Baliga S, Hess CB, Winkfield KM, **Mohindra P**, Rosen LR, Tsai H, Chang J, Hartsell WF, Plastaras JP. Risk of pneumonitis and outcomes after mediastinal proton therapy for relapsed/refractory lymphoma: A PTCOG and PCG collaboration. *Int J Radiat Oncol Biol Phys.* 2021;109(1):220-230.
102. Tseng YD, Pankuch M, **Mohindra P**, McGee L, Rossi C, Flampouri S, Hajj C, **Molitoris JK**, Chang JH, Tsai H, Stevens C, Rosen L, Vargas C, Hartsell W. Selection of mediastinal lymphoma patients for proton therapy within the Proton Collaborative Group Registry: Concordance with the ILROG guidelines. *Am J Clin Oncol.* 2021;44(6):269-274.
103. **Vicente E**, **Modiri A**, Kipritidis J, Hagan A, Yu K, Wibowo H, Yan Y, Owen DR, Matuszak MM, **Mohindra P**, Timmerman R, **Sawant A**. Functionally weighted airway sparing (FWAS): a functional avoidance method for preserving post-treatment ventilation in lung radiotherapy. *Phys Med Biol.* 2020;65(16):165010.
104. Vempati P, Halthore AN, Teckie S, **Rana Z**, Gogineni E, Antone J, Zhang H, Marrero M, Beadle K, Frank DK, Aziz M, Paul D, Ghaly M. Phase I trial of dose-escalated stereotactic radiosurgery (SRS) boost for unfavorable locally advanced oropharyngeal cancer. *Radiat Oncol.* 2020 Dec 11;15(1):278.
105. Vittrup AS, Tanderup K, **Bentzen SM**, ...EMBRACE Collaborative Group. Persistence of late substantial patient-reported symptoms (LAPERS) after radiochemotherapy including image-guided adaptive brachytherapy for locally advanced cervical cancer: A report from the EMBRACE study. *Int J Radiat Oncol Biol Phys.* 2021;109(1):161-173.
106. Vogelius IR, **Bentzen SM**. In reply to Berk and Alfonso. *Int J Radiat Oncol Biol Phys.* 2020 Nov 1;108(3):834-835.
107. Vogelius IR, **Bentzen SM**. Radiation dose escalation for early prostate cancer: Reigniting the FLAME? *J Clin Oncol.* 2021 Jun 4:JCO2100586. Online ahead of print.
108. **Vyfhuis MAL**, Suzuki I, **Bentzen SM**, Cullen KJ, Goloubeva OG. Adherence to guideline-concordant care and its effect on survival in black patients with head and neck cancers: A SEER-Medicare analysis. *Oncologist.* 2021;26(7):579-587.
109. Wang J, Salzillo T, Jiang Y, Mackeyev Y, David Fuller C, Chung C, Choi S, Hughes N, Ding Y, Yang J, **Vedam S**, Krishnan S. Stability of MRI contrast agents in high-energy radiation of a 1.5 T MR-linac. *Radiother Oncol.* 2021;161:55-64.
110. Weyerer V, Eckstein M, **Strissel PL**, Wullweber A, Lange F, Tögel L, Geppert CI, Sikic D, Taubert H, Wach S, Wullich B, Hartmann A, Stoehr R, Giedl J. TERT promoter mutation analysis of whole-organ mapping bladder cancers. *Genes (Basel).* 2021 Feb 5;12(2):230.
111. Weyerer V, **Strissel PL**, Stöhr C, Eckstein M, Wach S, Taubert H, Brandl L, Geppert CI, Wullich B, Cynis H, Beckmann MW, Seliger B, Hartmann A, Strick R. Endogenous retroviral-K envelope is a novel tumor antigen and prognostic indicator of renal cell carcinoma. *Front Oncol.* 2021 Apr 22;11:657187.
112. Weyerer V, Strissel PL, Strick R, Sikic D, Geppert CI, Bertz S, Lange F, Taubert H, Wach S, Breyer J, Bolenz C, Erben P, Schmitz-Draeger BJ, Wullich B, Hartmann A, Eckstein M. Integration of spatial PD-L1 expression with the tumor immune microenvironment outperforms standard PD-L1

- scoring in outcome prediction of urothelial cancer patients. *Cancers (Basel)*. 2021 May 12;13(10):2327
113. Witt JS, Kuczmarska-Haas A, Lubner M, Reeder SB, Cho SY, Minter R, Weber S, Ronnekleiv-Kelly S, Abbott D, LoConte N, Mulkerin DL, Lubner SJ, Uboha NV, Deming D, Ritter MA, **Mohindra P**, Bassetti MF. A phase I dose escalation study of neoadjuvant SBRT plus elective nodal radiation with concurrent capecitabine for resectable pancreatic cancer. *Int J Radiat Oncol Biol Phys*. 2021;109(2):458-463.
  114. Wright CM, **Koroulakis AI**, Baron JA, Chong EA, Tseng YD, Kurtz G, LaRiviere M, Venigalla S, Jones JA, Maity A, **Mohindra P**, Plastaras JP, Paydar I. Palliative radiotherapy for diffuse large B-cell lymphoma. *Clin Lymphoma Myeloma Leuk*. 2021 May 19:S2152-2650(21)00194-4. Online ahead of print.
  115. Wu T, Plett PA, Chua HL, Jacobsen M, Sandusky GE, **MacVittie TJ**, Orschell CM. Immune reconstitution and thymic involution in the acute and delayed hematopoietic radiation syndromes. *Health Phys*. 2020 Nov;119:647-658. Wullweber A, Strick R, Lange F, Sikic D, Taubert H, Wach S, Wullich B, Bertz S, Weyerer V, Stoehr R, Breyer J, Burger M, Hartmann A, **Strissel PL**, Eckstein M. Bladder tumor subtype commitment occurs in carcinoma in-situ driven by key signaling pathways including ECM remodeling. *Cancer Res*. 2021;81(6):1552-1566.
  117. Xie Y, Petzoldt J, Janssens G, O'Grady F, Yin L, **Bentfour EH**, Smeets J, Prieels D, Lustig RA, Lin A, Teo BK. Prompt gamma imaging for the identification of regional proton range deviations due to anatomic change in a heterogeneous region. *Br J Radiol*. 2020 Dec 1;93(1116):20190619.
  118. **Xu H, Zhang B, Guerrero M, Lee S, Lamichhane N, Chen S, Yi B.** Toward automation of initial chart check for photon/electron EBRT for the clinical implementation of new AAPM task group reports and automation techniques. *J Appl Clin Med Phys*. 2021;22(3):234-245.
  119. Yang D, **Lasio G, Zhang B, Yi B, Chen S,** Zhang Y, **Macvittie TJ**, Metaxas D, **Zhou J.** Automated pulmonary fibrosis segmentation using a 3D multi-scale convolutional encoder-decoder approach in thoracic CT for the rhesus macaque with radiation-induced lung damage. *J Sign Process Syst*. 2020 October 27.
  120. Yu S, **Xu H,** Zhang Y, Zhang X, Dyer M, Hirsch A, Tam Truong M, Zhen H. Knowledge-based planning in robotic intracranial stereotactic radiosurgery treatments. *J Appl Clin Med Phys*. 2021;22(3):48-54.
  121. Yuan X, Zheng Z, Liu F, Gao Y, Zhang W, Berardi R, **Mohindra P,** Zhu Z, Lin J, Chu Q. A nomogram to predict the overall survival of patients with symptomatic extensive-stage small cell lung cancer treated with thoracic radiotherapy. *Transl Lung Cancer Res*. 2021 May;10(5):2163-2171.
  122. Zhang Y, Jabbour SK, Zhang A, Liu B, Yue NJ, **Biswal NC.** Proton beam therapy can achieve lower vertebral bone marrow dose than photon beam therapy during chemoradiation therapy of esophageal cancer. *Med Dosim*. 2021 Jan 13:S0958-3947(20)30166-7. Online ahead of print.