



CRUK RadNet Leeds Year 3 Publications

Theme 1

Chalkidou, A, Macmillan, T, Grzeda, MT, Peacock, J, Summers, J, Eddy, S, Coker, B, Patrick, H, Powell, H, Berry, L, Webster, G, Ostler, P, Dickinson, PD, Hatton, MQ, Henry, A, Keevil, S, Hawkins, MA, Slevin N, van As, N. **Stereotactic ablative body radiotherapy in patients with oligometastatic cancers: a prospective, registry-based, single-arm, observational, evaluation study.** The Lancet Oncology. January, 2021. doi:10.1016/S1470-2045(20)30537-4 (Published)

Skaarup M, Lundemann MJ, Darkner S, Jørgensen M, Marner L, Mirkovic D, ... Appelt A. (2021). **A framework for voxel-based assessment of biological effect after proton radiotherapy in pediatric brain cancer patients using multi-modal imaging.** Medical physics, 48(7), pp. 4110-4121. 2021 May. doi: 10.1002/mp.14989 (Published)

Choudhury A, Theophanous S, Lønne PI, Samuel R, Guren MG, Berbee M, ... Appelt AL (2021). **Predicting outcomes in anal cancer patients using multi-centre data and distributed learning - A proof-of-concept study.** Radiotherapy and oncology : journal of the European Society for Therapeutic Radiology and Oncology, 159, pp. 183-189. June 2021. doi: 10.1016/j.radonc.2021.03.013 (Published)

Rais-Bahrami S, Efstathiou JA, Turnbull CM, Camper SB, Kenwright A, Schuster DM, ... Scarsbrook AF. (2021). **18F-Fluciclovine PET/CT performance in biochemical recurrence of prostate cancer: a systematic review.** Prostate cancer and prostatic diseases, 24(4), pp. 997-1006. 19 May 2021 doi: 10.1038/s41391-021-00382-9 (Published)

Appelt, A, Elhaminia B, Gooya A, Gilbert A, Nix M. **Deep Learning for Radiotherapy Outcome Prediction Using Dose Data – A Review.** Clinical Oncology. Feb 2022; doi: 10.1016/j.clon.2021.12.002 (Published)

Payne H, Bomanji J, Bottomley D, Scarsbrook AF, Teoh EJ, FALCON study group. (2022). **Impact of 18F-fluciclovine PET/CT on salvage radiotherapy plans for men with recurrence of prostate cancer postradical prostatectomy.** Nuclear medicine communications, 43(2), pp. 201-211. Feb 2022 doi: 10.1097/mnm.0000000000001501 (Published)

Currie, S, Nix, M et al, **HarMONAE: Harmonisation of MR imaging for Oncology with style-blind AutoEncoders.** Physics and Imaging in Radiation Oncology. 17 May 2022. doi: 10.1016/j.phro.2022.05.005 (Published)

Zakeri, A et al, **FlowVRNN: A convolutional variational recurrent neural network for motion estimation and generating synthetic sequential image data.** Journal Med Image Anal. April 2022. (Accepted)

Themes 1 and 3

Scarsbrook, A, Gilbert, A et al, **Combined PET-CT and MRI for response evaluation in patients with squamous cell anal carcinoma treated with curative-intent chemoradiotherapy.** European Radiology. 2022 Mar 11;1-11. doi: 10.1007/s00330-022-08648-z (Published)

Theme 2

Slevin F, Thompson CM, Speight R, Murray LJ, Lilley J, Henry AM. (2021). **Ultra hypofractionated extended nodal irradiation using volumetric modulated arc therapy for oligorecurrent pelvic nodal prostate cancer.** Medical dosimetry : official journal of the American Association of Medical Dosimetrists, 46(4), pp. 411-418. 2021 June. doi: 10.1016/j.meddos.2021.05.002 (Published)

Zhong J, Slevin F, Scarsbrook AF, Serra M, Choudhury A, Hoskin PJ, ... Henry AM. (2021). **Salvage Reirradiation Options for Locally Recurrent Prostate Cancer: A Systematic Review.** Frontiers in oncology, 11, pp. 681448. 09 Sept 2021 doi: 10.3389/fonc.2021.681448 (Published)

Rønne HS, Kallehauge JF, Kronborg CJS, Nyvang L, Rekstad BL, Hanekamp BA, ... Spindler KLS. (2021). **Intensity modulated proton therapy planning study for organ at risk sparing in rectal cancer re-irradiation.** Acta

oncologica (Stockholm, Sweden), 60(11), pp. 1436-1439.15 July 2021 doi: 10.1080/0284186x.2021.1953139 (Published)

Slevin F, Aitken K, Alongi F, Arcangeli S, Chadwick E, Chang AR, ... Murray LJ. (2021). **An international Delphi consensus for pelvic stereotactic ablative radiotherapy re-irradiation. Radiotherapy and oncology.** Journal of the European Society for Therapeutic Radiology and Oncology, 164, pp. 104-114.20 Sept 2021 doi: 10.1016/j.radonc.2021.09.010 (Published)

Nix M, Gregory S, Aldred M, Aspin L, Lilley J, Al-Qaisieh B, ... Murray L. (2022). **Dose summation and image registration strategies for radiobiologically and anatomically corrected dose accumulation in pelvic re-irradiation.** Acta oncologica (Stockholm, Sweden), 61(1), pp. 64-72.29 Sept 2021 doi: 10.1080/0284186x.2021.1982145 (Published)

Pagett, CJH, Lilley, J, Lindsay, R, Short, S, Murray, L. **Optimising tumour coverage and organ at risk sparing for hypofractionated re-irradiation in glioblastoma.** phiRO. 24 Feb 2022. doi: 10.1016/j.phro.2022.02.012 (Published)

Diez, P, Hanna, G G, Aitken, K L, van As, N, Carver, A, Colaco, RJ, Conibear, J, Dunne, EM, Eaton, DJ, Franks, K N, Good, JS, Harrow, S, Hatfield, P, Hawkins, MA, Jain, S, McDonald, F, Patel, R, Rackley, T, Sanghera, P, Tree, A, Murray, L. **UK 2022 Consensus on Normal Tissue Dose-Volume Constraints for Oligometastatic, Primary Lung and Hepatocellular Carcinoma Stereotactic Ablative Radiotherapy.** Clinical Oncology. 2022 May;34(5):288-300. doi: 10.1016/j.clon.2022.02.010. (Published)

Theme 3

Fatania F, Mohamud F, Clark A, Nix M, Short SC, O'Connor J, Scarsbrook AF, Currie S. **Intensity standardization of MRI prior to radiomic feature extraction for artificial intelligence research in glioma – A systematic review.** European Radiology. 2022 Jan; doi: 10.1007/s00330-022-08807-2 (Published)

Brüning-Richardson A, Shaw GC, Tams D, Brend T, Sanganee H, Barry ST, ... Short SC. (2021). **GSK-3 Inhibition Is Cytotoxic in Glioma Stem Cells through Centrosome Destabilization and Enhances the Effect of Radiotherapy in Orthotopic Models.** Cancers, 2021 November 2021; doi: 10.3390/cancers13235939 (Published)

Fatania, K, Mohamud, K, Clark, A, Nix, M, Short, SC, O'Connor, J, Scarsbrook AF, Currie, S. **Intensity standardization of MRI prior to radiomic feature extraction for artificial intelligence research in glioma—a systematic review.** European Radiology. Published: 29 April 2022. doi: 10.1007/s00330-022-08807-2 (Published)

Brown, S.R, Hinsley, S, Hall, E, Hurt, C, Baird, R.D, Forster, M, Scarsbrook, A, Adams, R.A, **A road map for designing phase I clinical trials of radiotherapy-novel agent combinations.** Clinical Cancer Research. 12 May 2022, <https://doi.org/10.1158/1078-0432.CCR-21-4087> (Published)

S. Currie et al, **A comprehensive clinical review of adult-type diffuse glioma incorporating the 2021 WHO Classification.** Neurographics (Accepted)