



Programmes Update

This year saw the MSc Diagnostic Radiography increase its intake from 16 students to 27. Demand for places has outstripped places since we opened in 2018. An innovative negotiation with the SAOLTA group of HSE (Health Service Executive) means we have increased the number of placements for students and thus can increase our intake of students. Students will now be placed down the west coast from Donegal to Kerry and on the south coast in Cork and Waterford.

Ann Cosgrove Chief Operations Officer for the Saolta Group welcomed the initiative.

“We are delighted to partner with University College Cork on this incredibly important course. This move will help the Saolta Group to proactively build up a future supply of radiographers while also promoting radiography as an attractive profession.

Pat Nash, the Chief Clinical Officer for the Saolta Group added: “The MSc in Diagnostic Radiography will provide and equip our future radiographers with the clinical and research skills and professional attributes required to work and develop as clinicians within our hospitals.

“The Saolta University Health Care Group has seven hospital locations along the West coast. We look forward to working with these future graduates in our Radiography services across the group.”

Professor Mark McEntee Head of Medical Imaging and Radiation Therapy at UCC (University College Cork) said “This innovative partnership with SAOLTA demonstrates excellent forward planning. Highly skilled radiographers can plan their future with SAOLTA in confidence”

New MSc in Medical Radiation Science

Academics with the Discipline have recently received approval to deliver a new post-graduate programme in Medical Imaging & Radiation Sciences (MIRS). This Programme will be available as a Postgraduate Certificate, Diploma and MSc and will enroll students from September 2024. The Programme is primarily aimed at qualified radiographers and radiation therapists who are progressing up the career ladder and includes nine bespoke pathways covering

- CT,
- MRI,
- Ultrasound,
- Mammography,
- Radiation Protection,
- Image Interpretation,
- Management and Leadership,
- Advanced Practice and
- Radiation Therapy.

Dr Andrew England (Programme Director) commented that “this has been over 12 months of work to gain the necessary approvals for this ambitious programme which will allow online postgraduate study, for both national and international students. Enrolment will be open in a few months and academics at UCC plan an extensive information and marketing campaign – watch this space”.

Application will open January 2024, for a September 2024 start. Applications will be online at



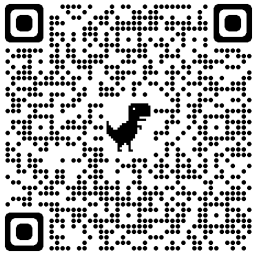
<https://www.ucc.ie/en/apply/>

You can express interest and be added to a mailing list by e-mailing MIRT@UCC.ie

2nd UCC CT Study Day

The 2nd UCC CT Study Day was held online on Saturday 23rd September 2023. Presentations included topics on post-mortem imaging, dual-energy CT, sustainability, CT dose reduction, education and radiation dose optimisation. The multidisciplinary / multinational faculty presented to over 45 delegates and included rich discussion. Future CT study days are currently being planned.

<https://www.ucc.ie/en/medical/gradstudcpd/gradstud/medicalimagingandradiationtherapy/newsandevents/>



Research

The discipline has been busy with multiple grant applications and have been successful on a few.

General Electric Health Care	Rapid Enhanced Assessment of Lung Cancer (REAL Ca)	Andrew England, Niamh Moore, Mark McEntee, Micheal Maher	2023-2-24	77,519
UCC - Satle	INCLUDE: Mapping Inclusion in Health Professions' Education	Dr Margaret Bermingham, Angela Flynn, Mark McEntee et al	2023-24	€25,461
College of Radiographers Industry Partnership Scheme (CoRIPS)	R-AI-diographers: Exploring the changing professional role and identity of radiographers in Europe in the era of AI	Christina Malamateniou Yiannis Kyratsis, Mark McEntee et al.	2022-24	£16,170

	(Artificial Intelligence)			
College of Radiographers Industry Partnership Scheme (CoRIPS)	Black box no more: identifying the knowledge needed to understand regulation and guide procurement of AI in Radiography	Christina Malamateniou Yiannis Kyratsis, Mark McEntee et al.	2022-23	£11,300
UCC - Satle	The integration of sustainability in healthcare professions education	Theresa O'Donovan and Annemarie Devine	2023-24	€1000

Research publications 2023 to date

It has been another outstanding year in research productivity, with the discipline averaging 1 publication every week.

1. Stogiannos, Nikolaos, Rizwan Malik, Amrita Kumar, Anna Barnes, Michael Pogose, Hugh Harvey, Mark F. McEntee, and Christina Malamateniou. "Black box no more: a Scoping review of AI Governance Frameworks to guide procurement and adoption of AI in medical imaging and radiotherapy in the UK." *The British Journal of Radiology* (2023): 20221157.
2. Long, Maria, Salman Albeshan, Yazeed Alashban, Andrew England, Niamh Moore, Rena Young, Paul Bezzina, and Mark F. McEntee. "The effect of contact radiation shielding on breast dose during CT abdomen–pelvis: a phantom study." *Radiation Protection Dosimetry* (2023): ncad218.
3. Stogiannos, Nikolaos, Aristotelis Psimitis, Haralabos Bougias, Eleni Georgiadou, Stephanos Leandrou, Periklis Papavasileiou, Irene Polycarpou, Christina Malamateniou, and Mark F. McEntee. "Exploring radiographers' perceptions and knowledge about patient lead shielding: a cross-sectional study in Greece and Cyprus." *Radiation Protection Dosimetry* 199, no. 13 (2023): 1401-1409.
4. Ahern, Maebh, Mark F. McEntee, and Niamh Moore. "Radiographers' attitudes toward the use of lead contact shielding." *Journal of Medical Imaging and Radiation Sciences* (2023).
5. Moore, N., Maher, M., Murphy, G., Maher, M. C., O'Connor, O. J., & McEntee, M. F. (2023). CT in the detection of latent tuberculosis: a systematic review. *Clinical Radiology*.
6. Gilley, R., L. R. David, B. Leamy, D. Moloney, N. Moore, A. England, M. Waldron, M. Maher, and M. F. McEntee. "Establishing weight-based diagnostic reference levels for neonatal chest X-rays." *Radiography* 29, no. 4 (2023): 812-817.
7. Brage, K., Pank, K. T., Hansen, S., Sondergaard, L. K., McEntee, M. F., & Pedersen, M. R. V. (2023). Technical ultrasonic quality assurance in Danish Radiology Departments. *WFUMB Ultrasound Open*, 100005.
8. Hurley, L., Alashban, Y., Albeshan, S., England, A., & McEntee, M. F. (2023). The effect of breast shielding outside the field of view on breast entrance surface dose in axial X-ray examinations: a phantom study. *Diagnostic and Interventional Radiology (Ankara, Turkey)*.
9. England, A., Thompson, J., Dorey, S., Al-Islam, S., Long, M., Maiorino, C., & McEntee, M. F. (2023). A comparison of perceived image quality between computer display monitors and augmented reality smart glasses. *Radiography*, 29(3), 641-646.
10. Andersen, P. A. B., Precht, H., McEntee, M. F., & Pedersen, M. R. V. (2023). How to set up a mobile X-ray unit in the community-Implementation initiatives for patient-centred care. *Radiography*, 29, S148-S151.
11. Rawashdeh, M., Saade, C., Al Mousa, D. S., Abdelrahman, M., Kumar, P., & McEntee, M. (2023). A new approach to dose reference levels in pediatric CT: Age and size-specific dose estimation. *Radiation Physics and Chemistry*, 205, 110698.

12. Shelly, E., Waldron, M. G., Field, E., Moore, N., Young, R., Scally, A., ... & McEntee, M. F. (2023). Cumulative Radiation Dose from Medical Imaging in Children with Congenital Heart Disease: A Systematic Review. *Children*, 10(4), 645.
13. Field, E. L., Tam, W., Moore, N., & McEntee, M. (2023). Efficacy of Artificial Intelligence in the Categorisation of Paediatric Pneumonia on Chest Radiographs: A Systematic Review. *Children*, 10(3), 576.
14. O'Leary, A. B., Scally, A., Moore, N., Maiorino-Groeneveld, C., & McEntee, M. F. (2023). Radiographers' knowledge and attitudes toward dementia. *Radiography*, 29(2), 456-461.
15. Fallon, B., England, A., Young, R., Moore, N., & McEntee, M. (2023). Prevalence of low back pain among Irish radiographers. *Journal of Medical Imaging and Radiation Sciences*.
16. Young, R., McEntee, M. F., & Bennett, D. (2023). Radiographers' perspectives on clinical supervision of students in Ireland. *Radiography*, 29(2), 291-300.
17. Midthun, P., Kirkhus, E., Østerås, B. H., Høiness, P. R., England, A., & Johansen, S. (2023). Metal artifact reduction on musculoskeletal CT: a phantom and clinical study. *European Radiology Experimental*, 7(1), 1-13.
18. Alzyoud, K., Al-Murshedi, S., & England, A. (2023). The impact of the early stages of the COVID-19 pandemic on academic studies, clinical training, and their opinion on vaccination among radiography students. *Electronic Journal of General Medicine*, 20(5).
19. Mellor, F. E., Smith, L., England, A., Snaith, B., & Cosson, P. (2023). A retrospective evaluation of supine pelvic radiography image quality using centring points and anatomical axial rotation, including reliability of measurements (ARLEX-P STUDY). *Radiography*, 29(5), 941-949.
20. Partner, A., England, A., Young, R., Shiner, N., & Bridge, P. (2023). Post COVID-19 trends in simulation use within diagnostic radiography and radiation therapy education. *Radiography*, 29(4), 684-689.
21. Mraity, H., England, A., Cassidy, S. F., Eachus, P., Dominguez, A., & Hogg, P. (2023). Developing and validating a psychometric scale for AP pelvis image quality.
22. Trozic, S., England, A., & Mekis, N. (2023). Erect pelvic radiography with fat tissue displacement: Impact on radiation dose and image quality. *Radiography*, 29(3), 546-551.
23. England, A., Beardmore, C., & Cunha, A. (2023). The EFRS patient centred care awards: Supporting the identification, promotion and propagation of high-quality care across Europe. *Radiography*, 29, S3-S4.
24. Alzyoud, K., Al-Murshedi, S., Yaghi, S., & England, A. (2023). The effect of erect abdomen radiography on absorbed doses to internal organs and tissues: A clinical study. *Journal of Medical Imaging and Radiation Sciences*, 54(1), 83-87.
25. O'Mahony, A.T., Henry, P.J., Coghlan, P., Waldron, M., Crowley, C., Ryan, D., Moore, N., Bennett, D.M., O'Connor, O.J., Maher, M.M. and Henry, M.T., 2023. Analytic Morphomics in Myositis-Related Interstitial Lung Disease. *Lung*, pp.1-9.
26. Mushonga, M., Helou, J., Weiss, J., Dawson, L. A., Wong, R. K., Hosni, A., ... & Barry, A. (2023). Clinical Outcomes of Patients with Metastatic Breast Cancer Treated with Hypo-Fractionated Liver Radiotherapy. *Cancers*, 15(10), 2839.
27. Lawrence, Y. R., Miszczyk, M., Barry, A. S., Diaz Pardo, D. A., Aguiar, A., Limon, D., ... &

- Symon, Z. (2023). Celiac plexus radiosurgery for pain management in advanced cancer: An international phase II trial, health-related quality of life (HRQOL) outcomes.
28. Midthun, P., Kirkhus, E., Osteras, BH., Hoiness, PR., England, A., Johansen, S. Metal artifact reduction on musculoskeletal CT: a phantom and clinical study. *European Radiology Experimental* 7(1):1-13.
29. Fleming, A., Buckley, C., Kamal, S., McCarthy, N., Dalton-O'Connor, C., Daly, J., ... & Young, R. (2023). Development of a pilot interprofessional education workshop for healthcare students and assessment of interprofessional collaborative competency attainment. *Journal of Interprofessional Care*, 1-10.
<https://doi.org/10.1080/13561820.2023.2202189>
30. Alzyoud, K., Al-Murshedi, S., England, A. The impact of early stages of the COVID-19 pandemic on academic studies, clinical training, and their opinion on vaccination among radiography students. *Elec J Gen Med* 20(5).

Published Posters with DOI

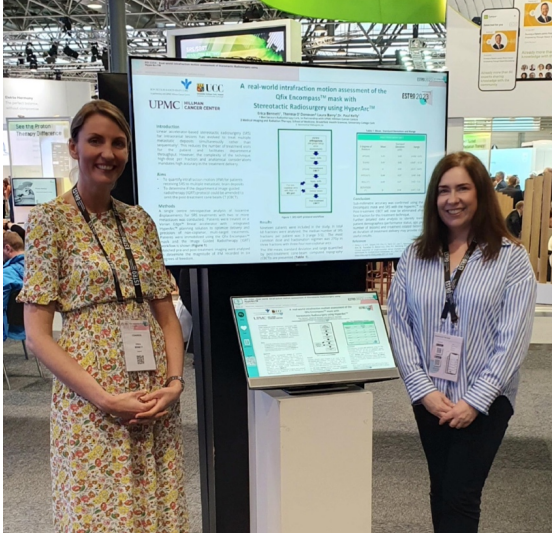
31. O'Donovan, T., Delaney, L., Devine, A., England, D. A., McEntee, P. M., Barry, P. A., ... & Jamaluddin, D. M. F. (2023). PO-2266 A stop-motion animation aid to provide information to patients on radiotherapy for thoracic cancers. *Radiotherapy and Oncology*, 182, S2038.
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33. O'Donovan, T., K. Fitzgerald, D. C. Lyons, D. A. England, P. M. McEntee, A. Devine, P. A. Barry, and D. E. O'Sullivan. "PO-1189 A retrospective review: risk factors associated with osteoradionecrosis in Head and Neck cancer." *Radiotherapy and Oncology* 182 (2023): S951-S952.
34. O'Donovan, T., L. Noonan, A. Devine, P. M. McEntee, P. A. Barry, and D. A. England. "PO-1570 Proton beam therapy in treating rhabdomyosarcoma in children: a systematic review." *Radiotherapy and Oncology* 182 (2023): S1274-S1275.
35. O'Donovan, T., K. Murphy, A. Devine, P. M. McEntee, P. A. Barry, and D. A. England. "MO-0559 The effectiveness of an educational intervention on young adults' perception of radiation therapy." *Radiotherapy and Oncology* 182 (2023): S439.
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38. Investigating the experiences and opinions of deaf service users within Radiology Departments. <https://dx.doi.org/10.26044/ecr2023/C-17448>
39. The prevalence of harassment of student Radiographers and Radiation Therapists while on clinical placement. <https://dx.doi.org/10.26044/ecr2023/C-17505>
40. Understanding dementia together - Evaluation of an interdisciplinary workshop.

<https://dx.doi.org/10.26044/ecr2023/C-23588>

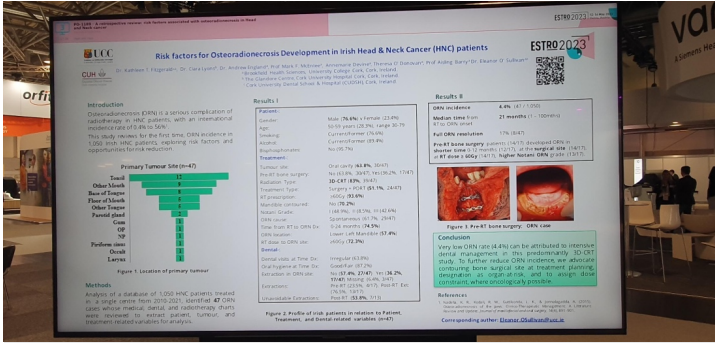
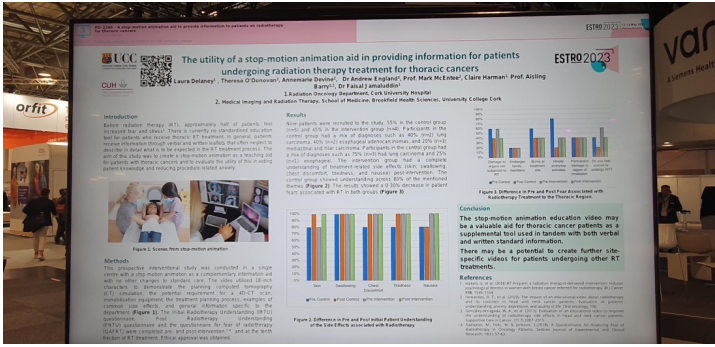
The annual meeting of the European Society for Radiotherapy and Oncology (ESTRO)

The annual meeting of the European Society for Radiotherapy and Oncology (ESTRO) 2023 was held in Vienna, Austria from 12-16 May. The congress theme, *From innovation to action*, builds on previous topics and focusses on how we translate and implement research into practice.





Annemarie Devine (UCC), Cyntia Eccles (The Christie), Theresa O' Donovan, (UCC), pictured at the industry exhibition hall at ESTRO 2023.



UCC/GE CT Symposium

On 14th June, UCC held a successful CT Symposium with GE HealthCare. Over 40 people attended in the beautiful Dora Altman room. This day captured the attention of the audience covering a wide range of topics delivered by experts from Ireland and the UK (United Kingdom). There was a particular emphasis on the applications of GE's revolutionary Dual energy imaging and Artificial Intelligence Image reconstructions and included talks on the Impact of low-dose CT in a clinical setting; Clinical, Clinical Specialist in CT Cork University Hospital Mary Jane Murphy presented an intriguing talk on The value of investing in the Latest CT Technology which provoked a lot of discussion from the other clinical experts in the room.



Commented [MM1]: @Niamh Moore would you mind adding a brief report on the GE study day.

Study Day on Central Venous Access Devices

A successful study day on accessing Central Venous Access Devices for administration was held for Radiographers and Radiation Therapists with experience in cannulation on 21st August in UCC. This generated a lot of interest from radiographers nationwide. This study day included talks from Gillian Lumley who is a Senior Radiographer in University Hospital Waterford and is one of the first radiographers in Ireland to undertake insertion of PICC lines.

European Federation of Radiographer Societies (EFRS)

Dr Andrew England represented the European Federation of Radiographer Societies (EFRS) and University College Cork at a recent ESCO-MRI Magnetic Resonance Safety Officer transnational project meeting in Malta.

