

AUS MRinRT 2022 Program

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## Day 1: Wednesday the 7<sup>th</sup> of December

Education Session	
Session Chairs: Kate Skehan and Shivani Kumar	
9:00 – 1:00pm	
9-10:00am	Dr Richard Speight (NHS) Talk – Title TBA
10-10:15am	Q&A with Dr Richard Speight
10:15-10:30am	Laura O'Connor: Magnetic Resonance Imaging to Cone Beam Computed Tomo
10:30-10:45am	Kate Skehan: Implementation of a dedicated MRI protocol for RT planning
10:45-11:15am	<b>Morning Tea</b>
11:15-12:15pm	Dr Donald McRobbie: MRI safety first and safety second
12:15-12:30pm	Q&A with Dr Donald McRobbie
12:30-12:45pm	Min Ku: Development of a Professional Certification for Radiation Therapists Undertaking MRI
12:45-1:00pm	Shivani Kumar: Implementation of workflows for the Australian MRI Linac
1:00-2:00pm	<b>Lunch</b>

Session 1: Solving Clinical Problems	
Session Chairs: Farshad Faroudi and Sirisha Tadimalla	
2:00 – 3:00pm	
2:00-2:15pm	Leah McDermott: Plan Adaption Sanity Check for MR-Linac Adapted Treatment
2:15-2:30pm	Madiha Tai: The use of Electron Contamination Deflector
2:30-2:45pm	Elizabeth Patterson: Electron Streaming Dosimetry on the Elekta Unity MR-Linac
2:45-3:00pm	Sarah Elliott: Assessment and Shielding of Electron streams for APBI on Unity
3:00-3:15pm	Julie Burbery & Crispin Chamunyonga: Keeping Abreast of MR Technology: Developing educational opportunities
3:15-3:30pm	David Crawford: Dose Escalated Stereotactic Ablative Radiotherapy of Pancreas
3:30-4:00pm	<b>Afternoon Tea</b>

Session 2: Building Better Systems	
Session Chairs: Stuart Crozier and Laura O'Connor	
4:00 – 6:00pm	
4:00-4:15pm	David Waddington: Advanced Reconstruction with Deep Learning for ultralow field MRI
4:15-4:30pm	Esther Wong: Extended FOV Imaging on the Australian MRI Linac
4:30-4:45pm	Shanshan Shan: Motion-Corrected Image Reconstruction using and unrolling network
4:45-5:00pm	James Grover: Super-Resolution Imaging on the Australian MRI-Linac
5:00-5:15pm	Paul Liu: In Silico Demonstration of MR-Guided Multi-leaf Collimator Tracking
5:15-5:30pm	James Korte: Magnetic Resonance Biomarker Assessment Software
5:30-5:45pm	Mingyan Li: Initial imaging results using the 8-element torso coil array for the Australian MRI Linac system
5:45-6:00pm	Paul Keall: Towards MRI-Guided Proton Therapy: The ultimate Cancer Treatment
<b>END OF CONFERENCE PROCEEDINGS FOR DAY 1</b>	



## Day 2: Thursday the 8<sup>th</sup> of December

Session 3: International Speaker Presentations	
Session Chairs: Paul Keall and Sarah Elliott	
9:00 – 11:00am	
9:00-9:45am	Dr. Percy Lee: MRI-Guided Radiotherapy: A New Standard of Care?
9:45-10:00am	Q&A
10:00-10:45am	Dr. Neelam Tyagi: Pancreas stereotactic ablative RT on a 1.5 Tesla MRI-linac system
10:45-11:00am	Q&A
11:00-11:30am	<b>Morning Tea</b>

Session 4: Adapting to Change and Managing Motion	
Session Chairs: Peter Metcalfe and Urszula Jelen	
11:30 – 1:30pm	
11:30-11:45am	Paul Keall: ICRU Report on MRI-Guided Radiation Therapy using MRI-Linacs
11:45-12:00pm	Yu Feng Wang: Quantitative imaging biomarkers: reliable detection of treatment-related changes from measurement uncertainty
12:00-12:15pm	Maxwell Eastwood: Comparison of Adaptive and Non-Adaptive Radiation Therapy plans using deformable
12:15-12:30pm	Maddison Picton: Adaptive MR Guided Radiotherapy for Head & Neck Cancer
12:30-12:45pm	Parmoun Daghigh: Assessing Real-Time Liver Motion Monitoring on the Elekta Unity MR-Linac
12:45-1:00pm	Reza Alinaghizadeh: Motion Evaluation for the Abdomen Imaging on Elekta MR-Linac
1:00-1:15pm	Sirisha Tadimalla: Personalised liver Stereotactic body RT using MRI
1:15-1:30pm	Felicity Height: Initial Experience with Daily ART for APBI on unity
1:30-2:30pm	<b>Lunch</b>
1:45-2:30pm	ACPSEM MRI-Linac Working Group Meeting (in the conference room)

Session 5: Better and Faster Images	
Session Chairs: Brad Oborn and Yu Feng Wang	
2:30 – 4:45pm	
2:30-3:00pm	Marco Mueller: Clinical Applications of APTW CEST Imaging in Brain Cancer
3:00-3:15pm	Philip Martin: Repeatability of Quantitative MRI Radiomic in Glioblastoma
3:15-3:30pm	Dominique Mathieu: Inter-Fraction T2/Flair Variation During MRI-Guided Radiotherapy
3:30-4:00pm	<b>Afternoon Tea</b>
4:00-4:15pm	Sweet Ping Ng: Automatic Segmentation of Salivary Glands and Skeletal Muscles
4:15-4:30pm	Stephen Gibson: Seeing the Beam: First-Time Imaging of the B0 Variation
4:30-4:45pm	Elia Lombardo – Offline and Online LSTM Networks for Respiratory Motion Prediction at MR-Linacs
<b>END OF NORMAL CONFERENCE PROCEEDINGS FOR DAY 2</b>	

<b>6:30pm: Conference Dinner (Hawaiian Shirt Themed)</b>
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## Day 3: Friday the 9<sup>th</sup> of December

Session 6: Dosing Up	
Session Chairs: David Waddington and Leah McDermott	
9:00 – 10:15am	
9:00-9:15am	Amrinder Chhabra: Beam Matching for Two 1.5T MR Linacs
9:15-9:30am	Alex Burton: The Current Status of MR-Linac Dosimetry Audits: An Update from the ACDS
9:30-9:45am	Brendan Whelan: Open Source Toolkit for Quantification, Reporting and Correction
9:45-10:00am	Sweet Ping Ng: Early Experience of MR-Guided Radiotherapy for Brain, Head
10:00-10:15am	Tamara Barry: New Kids on the Block: Winning and Learning - the PAH MRI Sim Service
10:15-10:45am	<b>Morning Tea</b>

Session 7: No CT Required	
Session Chairs: Sweet Ping Ng and Peter Greer	
10:45 – 12:20pm	
10:45-11:00am	Yosef Al-Abasse: Prostate Cancer Treatment: Validation of air coils and synthetic CT images
11:00-11:15am	Jonathan Goodwin: Susceptibility based detection of gold seed fiducial markers
11:15-11:30am	Hilda Chourak: MRI-Only Radiation Therapy for Prostate Cancer:
11:30-11:45am	Peter Greer: The NINJA MRI-Only Implementation Substudy-Preliminary results
11:45-12:00pm	Laura O'Connor: Comparison of Popular SCT Generation methods for MRI
12:00-12:15pm	Urszula Jelen: Towards Simulation-Free MR-Linac Treatment Planning
12:15-12:20pm	Conference close
12:30-1:30pm	<b>Lunch</b>
<b>END OF CONFERENCE PROCEEDINGS FOR DAY 3</b>	

1:30-2:30pm	TROG Special Interest Group Meeting (In the conference room)
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