PRELIMINARY PROGRAM

Monday, April 14

7:30 AM   **Breakfast**

8:00 AM   **Welcome and Introduction**

Clinical Evidence and Trial Progress in MRgRT

8:30 AM

- Michael Chuong, MD, *Miami Cancer Institute, Miami, FL, United States*
- Anna Bruynzeel, MD, PhD, *Amsterdam University Medical Centers, Amsterdam, The Netherlands*
- Himanshu Nagar, MD, MS, *Memorial Sloan Kettering Cancer Center, New York, NY, United States*

9:30 AM

Proffered Papers 1 - Clinical Studies and Applications in MRgRT

Time	Title	Speaker
9:30 AM	A Super-Resolution model for auto-segmentation of low-resolution Prostate MR-Linac data	Rob Tijssen
9:40 AM	Simulation and Pre-Planning Omitted Radiation Therapy (SPORT): Advancing MR-Guided Adaptive Radiotherapy for Prostate Cancer	Tsuicheng Chiu
9:50 AM	Liver Function Preservation after Feraheme-Enhanced MRI-Guided SBRT on 1.5T MR-Linac in Patients with HCC and Advanced Hepatic Cirrhosis	Parisa Shamsesfandabadi

10:00 AM	Low-field (0.55T) respiratory-resolved and pulmonary functional MRI for lung radiotherapy	Jessica Scholey
10:10 AM	Deliverability of biologically guided RT plans driven by quantitative MR imaging	Annette Haworth
10:20 AM	Evaluating T1 and T2-weighted MR images for improved liver GTV delineation and subsequent ITV generation using a novel 4D multitasking MR sequence	Theodore Geoghegan

10:30 AM   **Break**

11:00 AM

Improving Patient Throughput: Novel Workflows and Tools in MRgRT

- Eric Paulson, PhD, *Medical College of Wisconsin, Milwaukee, WI, United States*
- Harini Veeraraghavan, PhD, *Memorial Sloan Kettering Cancer Center, New York, NY, United States*
- Kathyrn Mittauer, PhD, *Miami Cancer Institute, Miami, FL, United States*

12:00 PM   **Lunch**

1:00 PM

Proffered Papers 2 - MRI for Treatment Planning

Time	Title	Speaker
1:00 PM	Evaluating MR based ultra-hypofractionated focal boost to intraprostatic lesions for high-risk	Tufve Nyholm

		localized prostate cancer with histological reference	
	1:10 PM	Longitudinal per fraction lesion segmentation and tracking via few-shot deep learning for MR-guided radiotherapy of prostate cancer patients	Josiah Simeth
	1:20 PM	Identification of Radiotherapy Target Volumes in Glioblastoma using Advanced MRI and 18F-DOPA PET/CT	Eyesha Younus
	1:30 PM	A simplified online adaptive workflow for long-course MR-guided radiotherapy in esophageal cancer	Koen Kuijer
	1:40 PM	Investigating artefact-free online MR imaging during actively scanned proton therapy using a bi-directional whole-body in-beam MRI scanner	Emely Weichert
	1:50 PM	Initial clinical experience of stereotactic body radiotherapy (SBRT) for lung metastases with target intrafraction tracking and gating by means 1.5T MR-Linac	Michele Rigo

2:00 PM

Sustainability in MRgRT: Strategies for Resource Management and Local Practices

- Rob Tijssen, PhD, *Catharina Hospital, Eindhoven, The Netherlands*
- Daniel Hyer, PhD, *University of Iowa, Iowa City, IA, United States*

3:00 PM   **Break**

Young Investigator Award Finalists Presentations

3:30 PM

Time	Title	Speaker
3:30 PM	Patient-specific imaging modality agnostic virtual digit twins modeling temporally varying digestive motion	Jorge Tapias Gomez
3:40 PM	Towards a clinically-relevant computational platform for systematically adapting radiation therapy for treating glioma	Hugo J Miniere
3:50 PM	Highly-Accelerated, Time-Resolved 4D Golden-Angle Radial MRI with Self-Supervised Learning	Haoyang Pei
4:00 PM	A Longitudinal Study of Functional Connectivity Changes of Patients with Diffuse Glioma After Chemoradiotherapy using Aberrancy Parcel Map Analysis of Resting-state Functional MRI	Tong Zhu
4:10 PM	Correlation of histopathological cell density and hypoxic fraction with time-dependent diffusion MRI in glioblastoma	Minea Jokivuolle
4:20 PM	Deducing Cardiorespiratory Motion of Cardiac Substructures Using a Novel 5D-MRI Workflow for Radiotherapy	Chase Ruff
4:30 PM	Distortion-Free Diffusion-Weighted Imaging of the Prostate Using TGSE-Based Golden-Angle PROPELLER Acquisition and Deep Learning Denoising	Jingjia Chen
4:40 PM	Modality-AGnostic Image Cascade: Cross-Modality MAGIC for improved MR-Linac Cardiac Segmentation	Nicholas Summerfield
4:50 PM	Segmentation Regularized Registration Training Improves Multi-Domain Generalization of Deformable Image Registration for MR-Guided Prostate Radiotherapy	Sudharsan Madhavan

Novel Imaging Biomarkers: Leveraging Quantitative MRI for Image-Guided Adaptive Radiotherapy

5:00 PM

- Faisal Mahmood, PhD, *Odense University Hospital, Odense, Denmark*
- Michael Dubec, PhD, *University of Manchester, Manchester, United Kingdom*
- Angus Lau, PhD, *Sunnybrook Health Sciences Centre, Toronto, Canada*

6:30 PM   **Reception (Location TBD)**

PRELIMINARY PROGRAM

Tuesday, April 15

7:30 AM	**Breakfast**

Embracing Motion: Recent Innovations in 4D MRI

8:30 AM

- Martin Fast, PhD, *University Medical Center Utrecht, Utrecht, The Netherlands*
- Chiara Paganelli, PhD, *Polytechnic University of Milan, Milan, Italy*
- Jing Cai, PhD, *The Hong Kong Polytechnic University, Hong Kong, China*

Proffered Papers 3 - MRI-Based Motion Management and Assessment

9:30 AM

Time	Title	Speaker
9:30 AM	Optimizing Motion Management in Spine SBRT on the MR-Linac: Enhancing Delivery Efficiency with Real-Time Cine Imaging and Baseline Shift Corrections	Eun Young Han
9:40 AM	Characterization of a Cartesian Self-Gated 4D-MR Imaging Sequence for SBRT	Stefan Dorsch
9:50 AM	Longitudinal Acceleration of Time-Resolved 4D MRI Exploiting Multi-Fraction Temporal Correlations	Jingjia Chen
10:00 AM	Optimizing gated MR-linac treatments using 4D-MRI for motion-compensated daily imaging	Katrinus Keijnemans
10:10 AM	Characterizing contractile motion along the stomach medial axis from dynamic MRI	Robert Jones

10:20 AM	Combination of Pseudo-Golden-Angle Radial Acquisition and Deep Learning Reconstruction for Motion-Resolved 4D MRI on a 1.5T MR-Linac	Can Wu

10:30 AM	**Break**

Proffered Papers 4 - Quantitative MRI I

	Time	Title	Speaker
11:00 AM	11:00 AM	A multi-centre investigation of longitudinal changes in the apparent diffusion coefficient during short-course radiotherapy for patients with rectal cancer	Anne Bisgaard
	11:10 AM	MR Multitasking-driven Abdominal Integrated Imaging (MT-AI2)	Junzhou Chen
	11:20 AM	Evaluation of a Novel Quantitative Multiparametric MR Sequence for Radiation Therapy Treatment Response Assessment	Yuhao Yan
	11:30 AM	Longitudinal ADC changes in the prostate and dominant lesion during hypo-fractionated SBRT on a 1.5 T MR linac: correlation with PSA response	Sarah Morris
	11:40 AM	Multi-Center Diffusion-Weighted MRI Validation for 0.35T MR-Linac	Siamak Nejad-Davarani
	11:50 AM	Quantitative modelling of oxygen delivery in patients with head and neck cancer using oxygen-enhanced MRI	Michael Dubec

12:00 PM **Lunch**

1:00 PM

Advancements in Imaging Sequences for MRgRT: New Techniques and Applications

- Zhaoyang Fan, PhD, *University of Southern California, Los Angeles, CA, United States*
- Marielle Philippens, PhD, *University Medical Center Utrecht, Utrecht, The Netherlands*
- Yong Chen, PhD, *Case Western Reserve University, Cleveland, OH, United States*

2:00 PM

Proffered Papers 5 - Advanced and Specific Topics I

Time	Title	Speaker
2:00 PM	C-SegDeform: a novel alternative to image registration in MR-guided adaptive radiotherapy of pancreatic cancer	Mehdi Shojaei
2:10 PM	Need for Speed: Timegain of AI-based delineations for MR-guided online adaptive radiotherapy of prostate cancer	Maximilian Konrad
2:20 PM	Accelerate Diffusion-Weighted MRI with Extended b-values via Implicit Neural Representation Learning	Lianli Liu
2:30 PM	A software framework for automated commissioning of AI Segmentation models for radiation therapy workflows	Nico Cote
2:40 PM	The impact of deep learning organ delineation uncertainty for prostate cancer radiotherapy	Christian Jamtheim Gustafsson
2:50 PM	Radiomics Approaches for Survival Prediction and Risk Stratification in Glioma Using MRI	Walid Dandachly

3:00 PM	**Break**
3:30 PM	**Dose Accumulation and Re-Irradiation: Tools, Guidelines, and Implementation** ● Lando Bosma, PhD, *University Medical Center Utrecht, Utrecht, the Netherlands*
5:00 PM	**Industry Development Update**
6:30 PM	**Poster Presentation and Reception**

PRELIMINARY PROGRAM

Wednesday, April 16

7:30 AM   **Breakfast**

Proffered Papers 6 - Quantitative MRI II

	Time	Title	Speaker
	8:30 AM	Repeatability of longitudinal apparent diffusion coefficient measurements in esophageal tumors on a 1.5 T MR-linac	Koen Kuijer
	8:40 AM	Preliminary Results from Consensus Measurement Methods for Longitudinal relaxometry on the 1.5T Unity MR-linac: a multi-institution comparison	Mike van Rijssel
8:30 AM	8:50 AM	Longitudinal Assessment of Diffusion-MRI Hypoxia Score in Patients with Prostate Cancer Receiving Definitive Radiotherapy	Ivan A. Rashid
	9:00 AM	Early radiation induced changes to the microenvironment in cervical cancer patients	Tiril Hillestad
	9:10 AM	Longitudinal Diffusion-Weighted MRI for Treatment Response Assessment in Locally Advanced Rectal Cancer Patients Undergoing Short-Course Radiotherapy	Jonathan Pham
	9:20 AM	Monitoring Concurrent Chemoradiation Treatment Response in Cervical Cancer Using Quantitative 3D T1ρ Mapping	Sandeep Panwar
	9:30 AM	Assessment of treatment response after prostate Stereotactic Body Radiation Therapy using quantitative	Hayley Reynolds

	MRI and radiomics: the SBRT SI-BiRT trial	

Proffered Papers 7 - Advanced and Special Topics II

9:40 AM

Time	Title	Speaker
9:40 AM	Implementation of Quantitative MRI-Guided Adaptive Radiotherapy on MR-LINAC	Jie Deng
9:50 AM	Online adaptive MR-Guided radiotherapy on a 1.5 T MR-Linac: clinical experience and evaluation of the first 1000 patients in a monocentric analysis	Michele Rigo
10:00 AM	Bowel motion: Is it a concern for multi-isocenter treatments?	Saskia Damen
10:10 AM	Synthetic 3D MRI generation from CBCT for deep-inspiration breath-hold (DIBH) abdominal treatments	Paulo Quintero
10:20 AM	Toward Personalized Automation in MR-Linac Workflows: Transforming Adaptive Radiotherapy with Advanced Monaco TPS Scripting	Sean Domal
10:30 AM	Comparative Plan Quality and Dosimetric Analysis of Two Commercially Available MR-Linac Systems in Prostate and Pancreas Cancers	Huiming Dong
10:40 AM	Investigating the dosimetric impact of intrafractional motion in prostate cancer patients during MR-guided adaptive radiotherapy	Stella Xing

10:50 PM   **Break**

11:20 PM

Low Field vs. High Field MRI: A Comparative Perspective
- Priti Balchandani, PhD, *Icahn School of Medicine at Mount Sinai, New York, NY, United States*
- Jelle Varaart, PhD, *NYU Grossman School of Medicine, New York, NY, United States*

12:20 PM

Awards & Closing Remarks