

PRELIMINARY PROGRAM

Monday, April 14

7:00 AM

Registration & Breakfast

8:00 AM

Welcome and Introduction

- Michael P. Recht, MD
Louis Marx Professor and Chair, Department of Radiology, NYU Langone Health, New York, NY, United States
 - Alec C. Kimmelman, MD, PhD
Director, Laura and Isaac Perlmutter Cancer Center, Laura and Isaac Perlmutter Professor and Chairman, Department of Radiation Oncology, Associate Dean for Cancer Research, NYU Langone Health, New York, NY, United States
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8:30 AM

Clinical Evidence and Trial Progress in MRgRT

- 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*
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10:00 AM

Proffered Papers 1 - Clinical Studies and Applications in MRgRT

Time	Title	Speaker
10:00 AM	A Super-Resolution model for auto-segmentation of low-resolution Prostate	Rob Tijssen

	MR-Linac data	
10:10 AM	Simulation and Pre-Planning Omitted Radiation Therapy (SPORT): Advancing MR-Guided Adaptive Radiotherapy for Prostate Cancer	Tsuicheng Chiu
10:20 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

10:30 AM

Coffee Break

11:00 AM

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*

12:00 PM

Lunch

Proffered Papers 2 - MRI for Treatment Planning

1:00 PM

Time	Title	Speaker
1:00 PM	Evaluating MR based ultra-hypofractionated focal boost to intraprostatic lesions for high-risk localized prostate cancer with histological reference	Tufve Nyholm

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

Improving Patient Throughput: Novel Workflows and Tools in MRgRT

2:00 PM

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

3:00 PM

Coffee Break

3:30 PM

Young Investigator Award Finalist Presentations

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 TBA)

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	Robert Jones

	dynamic MRI	
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

Coffee Break

Proffered Papers 4 - Quantitative MRI Part 1

11:00 AM

Time	Title	Speaker
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 Part 1

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

Coffee Break

3:30 PM

Dose Accumulation and Re-Irradiation: Tools, Guidelines, and Implementation

- Lando Bosma, PhD, *University Medical Center Utrecht, Utrecht, the Netherlands*
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Proffered Papers 6 - Clinical Studies and Applications in MRgRT Part 2

4:30 PM

Time	Title	Speaker
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

5:00 PM

Industry Development Update

6:30 PM

Poster Viewing

PRELIMINARY PROGRAM

Wednesday, April 16

7:30 AM

Breakfast

Proffered Papers 7 - Quantitative MRI Part 2

8:30 AM

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
8:50 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	
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Proffered Papers 8 - Advanced and Special Topics Part 2

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

Coffee Break

Low Field vs. High Field MRI: A Comparative Perspective

11:20 PM

- Priti Balchandani, PhD, *Icahn School of Medicine at Mount Sinai, New York, NY, United States*
- Jelle Varmaart, PhD, *NYU Grossman School of Medicine, New York, NY, United States*

12:20 PM

Awards & Closing Remarks

12:30 PM

Boxed Lunch & Adjourn
