

Registration:

Course fee (+10% after early booking deadline, 4 weeks before seminar)	USD	Please select ↓
Attendance option		
"Medical Device MRI Safety Specialist" "Full Tilt" 9, 10, 11 June 2022 (Lectures & MRI hands-on):	2,345	

Title, First name, Name

Function title

Organization

Street, Number

City, Zip-code

Telephone, Fax

Email

Land / Country

Date, Signature

Please send your registration to:
MRI-STaR GmbH
Fax: +49 209 1497730 88
Email: seminar@mri-star.com

Information:

Terms of payment:

The amount is due for payment 2 weeks after receipt of the invoice. The course fee must be paid via wire transfer, check or via credit card. Information is provided in separate invoice. Credit card information please provide here via fax:

Visa MasterCard AMEX

Credit card #

_____ Name of
card holder _____
valid until _____
date _____

Discounts:

20% discount on regular price for ONLINE participation.
Every 2nd and further registrant from the same organization applies for a 5% discount on top.

Registration is valid only with receipt of confirmation and payment of the course fee. Early booking deadline: 4 weeks before seminar date

A cancellation is free of charge up to 6 weeks before the seminar date. After that date we charge 50% of the registration fee. For a cancellation within the last 7 days 80% are charged of the course fee. If the cancellation takes place later or the participant or a backup does not attend in the course, we are entitled to deduct the full participation fee.

The course fee includes: certificate* "Medical Device MR Safety Specialist", script, confirmation of participation.

The number of participants is limited. The places will be assigned in sequence of the receipt of registrations. MRI-STaR reserves the right to offer an alternative seminar date, if the number of participants is too low or too high.

Seminar location:

Georgetown University Medical Center
3900 Reservoir Road NW
SW107 Medical/Dental Building
Washington DC, 20057
USA

We would be pleased to welcome you as attendee!



MRI-STaR

Magnetic Resonance Institute
for Safety, Technology and Research

online & on-site Hands-on MR Seminar

EST Time Zone

The "Medical Device MR Safety Specialist" (MRSS) Magnetic Resonance Imaging MR Safety and Compatibility of Medical Devices

June 9-11, 2022

Organizer

MRI-STaR GmbH
www.mri-star.com

In cooperation with  www-mrcomp.com

 **MRSS Seminar Day 1:**

08:00	08:05	Dial in	
08:05	08:30	Welcoming / Introduction	Sch
08:30	08:45	Virtual visit of the MR system	Kug
08:45	10:15	Basics of MR physics and technical aspects - Static mag. field, RF-Field, Gradient-field - MR components - Refresh of the physical principle - Physics of MRI (spin, magnetization, MR signal) - MR image acquisition (RF pulse sequences, gradients, geometry, signal to noise and contrast, contrast agents) - MR Imaging techniques (fast imaging, Perfusion, Diffusion, Spectroscopy)	Kug
10:15	10:30	Grab a Coffee	
10:30	11:20	The Anatomy of modern Gradient Systems & its related Safety Aspects	Schm
11:20	11:30	Grab a Coffee	
11:30	13:00	Significant hazards MRI I system-specific (MR safety, the MR system and the MR worker – IEC 60601-2-33) - General terms - Presentation of hazards - Technology of superconductivity and potential risks of cryogenics - Laser	Eng
13:00	14:00	Lunch break	
14:00	15:30	MR safety and compatibility of medical devices (and items) I / Significant hazards MRI II item-specific - Interactions of items (incl. implants) within the MR environment (static mag.field, switched gradient and RF field) - Current technical standards & guidance, MR testing methods	Sch
15:30	15:45	Coffee break	
15:45	16:30	MR safety instruction/Hands on preparation	
16:30	18:00	Hands-on: MR basics - Preventive measures and safety in the MR environment (staff & items) - Basic MR imaging: Sequence selection, planning geometry and contrast - MR Imaging: image quality, artifacts	Sch Kug
18:00	open	Final discussion	

 **MRSS Seminar Day 2:**

08:15	08:30	Dial in/Welcoming	
08:30	10:00	Modeling for RF Safety and Implant Safety Assessments - From Basics to Current Research Trends - Research & Trends related to MR safety - Numerical simulation and modeling	Mur
10:00	10:15	Coffee break	
10:15	11:15	MRI from a clinical view I - Diagnostics & Therapy - Surgery & Interventions (Biopsy, Ablation (RF, Laser), etc.)	Mel
11:15	11:30	Grab a Coffee	
11:30	12:30	MRI from a clinical view II - Robotics, Navigation, Visualization of implants and Instruments	Mel
12:30	13:30	Lunch break/Transfer to scanner	
13:30	15:30	Hands-on: MR Safety - RF-induced heating experiment Hands on: MR interventions - Your first MR-guided biopsy - Learn about workflow and technique	Sch Mel
15:30	16:00	Discussion	

Target audience:

The seminar is especially designed for the **MR safety technical** interests of **auditors and quality/regulatory affairs managers, product and sales managers, R&D managers/engineers/physicists.**

The seminar language is English. Each hands-on participant should become qualified for basic MR imaging, understanding the MR interactions and applying required safety precautions in the MR environment.

**The seminar will be held together with the separate course "MR Safety Expert" (MRSE) for MRI users*

Program is Subject to changes

TIME SLOTS in Eastern Standard Time (EST)

 **MRSS Seminar Day 3:**

08:15	08:30	Dial in/Welcoming	
08:30	09:45	MR safety and compatibility of medical devices (and items) II - Finding the "worst-case" - Labeling of devices for the MR environment	Sch
09:45	10:00	Coffee break	
10:00	11:00	Practical training: Behavioral measures in MR routine (Implant labeling research) - Implant research - Case studies	Sch
11:00	11:15	Coffee break	
11:15	13:00	Assessment of MR safety for patients with implantable medical devices - ISO/TS 10974: Requirements for active implantable medical devices - Potential physical relevance for passive devices	Eng
13:00	13:10	Coffee break	
13:10	13:40	Guest lecture: FDA Regulatory Aspects on MR Safety, Testing, and Labeling of medical devices	Kai
13:40	14:00	Final discussion/Multiple-Choice-Test/Farewell	

Lecturers:

Dr. M. Murbach
Murbach EMConsulting, Zurich, Switzerland

Dr. rer. nat. H. Kugel
Department of Clinical Radiology, University of Munster, Germany

Prof. A. Melzer, M.D., DDS
Institute for Medical Science and Technologies IMSaT, Universities Dundee & St. Andrews, United Kingdom

H. Engels, Ph.D.
MR Safety Consultant, MR:comp and former MR Safety Director Philips Healthcare, The Netherlands

Dipl.-Phys. F. Schmitt
MR-Consultant, MR:Comp, former VP Gradient Systems & Director Ultra Highfield Imaging at Siemens Healthcare, Erlangen, Germany

G. Schaeffers, Dipl.-Ing. (FH)
MR Safety Testing Laboratory, MR:comp GmbH, Gelsenkirchen, Germany

Wolfgang Kainz, PhD
CEO & President, High Performance Computing for MRI Safety, LLC, USA