

## 2<sup>nd</sup> ANNUAL MRI SAFETY DAY



Saturday, November 24<sup>th</sup>, 2018
Rush University Medical Center, Chicago IL
Professional Building Searle Conference Center, 5th Floor
1725 West Harrison Street, Chicago, IL 60612

## Hosted by:

## Department of Medical Imaging Sciences College of Health Sciences, Rush University

The 2<sup>ND</sup> ANNUAL MRI SAFETY DAY is a one-day educational activity that enables practitioners engaged in magnetic resonance imaging (MRI) to incorporate the latest information, guidelines, and standards in safety into their practice. This program will review fundamental MRI safety procedures and meets the annual training recommendations from the American College of Radiology (ACR) for Level 2 MR Personnel. Importantly, MRI facilities must now comply with the revised requirements for diagnostic imaging from The Joint Commission (TJC) and document that MRI technologists participate in ongoing education that includes annual training on safe MRI practices. Accordingly, the content presented will cover each important MRI safety topic specified by TJC, as well as many additional subjects that will greatly expand the knowledge-base of healthcare professionals. This program is especially suited for MRI technologists, radiographers, radiologists, imaging nurses, MRI researchers, physicists, MRI directors, managers and administrators.

THIS EVENT IS APPROVED FOR 6.00 CME/CE CREDITS BY THE AMA AND ASRT.

#### **PROGRAM FACULTY**

Jie Deng, Ph.D., DABMP, MRSO (MRSCTM)

William Faulkner, B.S., R.T.(R)(MR)(CT), FSMRT, MRSO (MRSC<sup>TM</sup>)

Kristan Harrington, MBA, R.T.(R)(MR), MRSO (MRSC<sup>TM</sup>)

Frank G. Shellock, Ph.D., FACR, FACC, FISMRM

Laura P. Vasquez, Ph.D., RVT (ARDMS), RT (R), (MR), (ARRT)

Jeffrey C. Weinreb, M.D., FACR, FISMRM, FSCBT/MR

#### **2018 LEARNING OBJECTIVES:**

- 1. Review recommendations for creating an MRI safety culture.
- 2. Describe the process in developing an MRI performance improvement program.
- 3. Differentiate the bioeffects associated with the static magnetic field, time-varying magnetic field, and radiofrequency field.
- 4. Describe the risks associated with the electromagnetic fields utilized for MRI.
- 5. Summarize guidelines and best practices that prevent projectile-related accidents.
- 6. Summarize guidelines that avoid issues related to acoustic noise.
- 7. Summarize procedures that prevent burns associated with MRI.
- 8. Identify appropriate MRI screening procedures for patients, healthcare professionals, and others.
- 9. Identify techniques for management of patients with claustrophobia, anxiety, or emotional distress.
- 10. Describe guidelines for physiological monitoring in the MRI setting.
- 11. Summarize the current MRI labeling terminology for implants and devices
- 12. Describe the MRI-related risks associated with implants and devices.
- 13. Describe guidelines for managing medical emergencies in the MRI setting.
- 14. Summarize guidelines for emergency shut down, quench, and cryogen safety in MRI.
- 15. Summarize updated guidelines for use of gadolinium-based contrast agents (GBCAs).
- 16. Compare the association of various GBCAs with nephrogenic systemic fibrosis and gadolinium retention.

#### PROGRAM SCHEDULE

Registration and Continental Breakfast	7:00 – 8:00 am
Session I	
Welcome	
Creating an MRI Safety Culture and Performance Improvement Program	8:10 – 8:30 am
Laura P. Vasquez, Ph.D., RVT (ARDMS), RT (R), (MR), (ARRT)	
The Physics of MRI Safety	8:30 – 9:00 am
Jie Deng, Ph.D., DABMP, MRSO (MRSCTM)	
Controlling Access to the MRI Environment Including the Use of FMDS	9:00 – 9:20 am
William Faulkner, B.S., R.T.(R)(MR)(CT), FSMRT, MRSO (MRSC <sup>TM</sup> )	
Managing Issues Related to Acoustic Noise	9:20 – 9:40 am
Kristan Harrington, MBA, R.T.(R)(MR), MRSO (MRSC <sup>TM</sup> )	

Preventing Excessive Heating and Burns During MRI Frank G. Shellock, Ph.D., FACR, FACC, FISMRM	9:40 – 10:00 am
Coffee and Snack Break	10:00 – 10:15 am
Session II  Screening Patients and Other Individuals  Frank G. Shellock, Ph.D., FACR, FACC, FISMRM	10:15 – 10:45 am
Managing Patients with Claustrophobia, Anxiety, or Emotional Distress Kristan Harrington, MBA, R.T.(R)(MR), MRSO (MRSC <sup>TM</sup> )	10:45 – 11:00 am
Physiological Monitoring During MRI Frank G. Shellock, Ph.D., FACR, FACC, FISMRM	11:00 – 11:15 am
MRI Labeling Terminology for Implants and Devices Frank G. Shellock, Ph.D., FACR, FACC, FISMRM	11:15 – 11:45 am
MRI Issues for Implants and Devices William Faulkner, B.S., R.T.(R)(MR)(CT), FSMRT, MRSO (MRSC <sup>TM</sup> )	11:45 – 12:00 pm
Lunch Break	12:00 – 1:00 pm
Session III <u>Urgent Issues and Medical Emergencies</u> Kristan Harrington, MBA, R.T.(R)(MR), MRSO (MRSC <sup>TM</sup> )	1:00 – 1:15 pm
Emergency Shut Down, Quench, and Cryogen Safety William Faulkner, B.S., R.T.(R)(MR)(CT), FSMRT, MRSO (MRSC <sup>TM</sup> )	1:15 – 1:30 pm
Update on Gadolinium-Based Contrast Agents (GBCAs) Jeffrey C. Weinreb, M.D., FACR, FISMRM, FSCBT/MR	1:30 – 2:00 pm
Association of GBCAs with NSF and Gadolinium Retention Jeffrey C. Weinreb, M.D., FACR, FISMRM, FSCBT/MR	2:00 – 2:20 pm
Coffee and Snack Break	2:20 – 2:30 pm
Panel Discussion; JD, KH, WF, FGS, JCW Moderator: LPV	2:30 – 3:30 pm
Wine and Cheese Closing of Program (Networking & Photos)	3:30 – 4:30 pm

## **AUDIENCE**

Radiologists and Physicians

- MRI Technologists/Radiographers
- Imaging Nurses and Nursing Personnel
- MRI Physicists
- **MRI** Researchers
- **♣** MRI Directors/Supervisors/Managers/Administrators
- Medical Imaging Specialists
- MRI and Other Vendors
- **4** Educators/Instructors
- **♣** Front Office Staff Members

# WE PROUDLY WELCOME OUR PROGRAM FACULTY - WORLD-FAMOUS, MRI SAFETY EXPERTS!

William Faulkner, B.S., R.T.(R)(MR)(CT), FSMRT, MRSO (MRSC<sup>TM</sup>)

Kristan Harrington, MBA, R.T.(R)(MR), MRSO (MRSC<sup>TM</sup>)



**William Faulkner and Kristan Harrington** are currently working as independent consultants through William Faulkner & Associates. They provide MRI general and customized education and operations consulting services. They have been providing MR Safety Officer courses and training for the last 4 years and are both credentialed MR Safety Officers by the ABMRS.

**William Faulkner** has been working as an independent consultant for the last 19 years. He is the first president of the Society for MR Radiographers and Technologists (SMRT). He is the author and contributing author on several MRI books. Bill is also a founding board member of the American Board of Magnetic Resonance Safety (ABMRS).

**Kristan Harrington** has over 20 years of experience in the medical imaging profession. She received her bachelorette and MBA from Emory University and worked for 12 years for Philips Medical before returning to Emory as an Associate Professor to head the B.S. program in MRI. She has been lecturing and working with William Faulkner & Associates for the last 10 years.

Frank G. Shellock, Ph.D., FACR, FACC, FISMRM



**Dr. Frank G. Shellock** is a physiologist with more than 30 years of experience conducting laboratory and clinical investigations in the field of magnetic resonance imaging. He is an Adjunct Clinical Professor of Radiology and Medicine at the Keck School of Medicine, University of Southern California. Dr. Shellock has authored or co-authored more than 250 publications in the peer-reviewed literature. His medical textbooks are best sellers, including the annually revised textbook series, the Reference Manual for Magnetic Resonance Safety, Implants and Devices. His company, Shellock R & D Services, Inc. specializes in the assessment of MRI issues for implants and devices, as well as the evaluation of electromagnetic field-related bioeffects. As a commitment to the field of MRI safety, bioeffects, and patient management, he created and maintains the internationally popular web site, www.MRIsafety.com.

Jeffrey C. Weinreb, M.D., FACR, FISMRM, FSCBT/MR



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**Dr. Jeffrey C. Weinreb** is the Director of the MRI Service at Yale-New Haven Hospital and a Professor in the Department of Radiology and Biomedical Imaging at the Yale School of Medicine. After graduating Phi Beta Kappa from the MIT, he received his M.D. from the Icahn School of Medicine at Mount Sinai. He has held faculty positions at UT Southwestern Medical School, Columbia College for Physicians and Surgeons, and NYU School of Medicine. For more than three decades, Dr. Weinreb has been an innovator in clinical MRI, and is a leading authority on MRI contrast agents, MRI safety issues, and clinical applications of body MRI. He has authored/co-authored more than 200 published manuscripts, including 13 book chapters and three textbooks, served on the editorial boards of numerous medical journals, and has presented more than 950 invited lectures throughout the world. Recently, he led an international effort to develop PI-RADS v2 (Prostate Imaging Reporting and Data System Version 2) to standardize the acquisition, interpretation, and reporting of prostate MRI, and he was one of the organizers for the NIH/NIBIB workshop on clinical manifestations of gadolinium deposition in 2018.

Dr. Weinreb has served as Vice President of the American College of Radiology, Chairman of the ACR Commission on Quality and the ACR Forum, member of the ACR Board of Chancellors, President of the New York Roentgen Society, and President of the SCBT/MR. He is also the recipient of the 2017 ACR Gold Medal Award.

### TO REGISTER GO TO:

https://cmetracker.net/RUSH/Login?formname=RegLoginLive&EventID=41789

Registration Cost: \$95.00

Student Registration: \$30.00

You'll receive an email to confirming your registration and hotel information. Registration is from 7:00-8:00 am and conference begins promptly at 8:00 am. Registration fee includes continental breakfast, snacks, lunch and a closing photo session with our guest speakers (wine & cheese served). Plus, attendees will receive a "SWAG BAG" containing great giveaways.

### HOTEL RESERVATION INFORMATION

Marriott Chicago at Medical District/UIC 625 S. Ashland Ave Chicago, IL 60612. Go to this link below to receive discounted rate of \$149 per night:

Book your group rate for Rush University 2nd Annual MRI Safety Day Room Block <a href="https://bit.ly/2PfXFiF">https://bit.ly/2PfXFiF</a>

Please make your reservations no later than Saturday, October 13, 2018



Please direct questions about the 2<sup>nd</sup> Annual MRI Safety Day to course director: Laura\_Vasquez@rush.edu

## Sincerely,

Laura P. Vasquez, Ph.D., RVT (ARDMS), RT (R), (MR), (ARRT)

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