MRI Safety

12 February 2023
Post Graduate Centre, KFSHRC, Riyadh

Scientific Track Director:
Maxwell Amurao, PhD
## Program Schedule

### 12 February 2023; Sunday

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tr>
<td>8:00 AM - 9:00 AM</td>
<td>Registration &amp; Morning Coffee</td>
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| 9:00 AM - 10:15 AM | Session 1
| Introduction to MRI Safety  
| • Static Magnetic Field ($B_0$)  
| • Spatial Magnetic Field Gradients ($dB/dx$) |
| 10:15 AM - 10:30 AM | Morning Break                         |
| 10:30 AM - 11:15 AM | Session 2
| Introduction and the Physics of MRI Safety  
| • Time Varying Magnetic Fields ($dB/dt$)  
| • Time Varying Radiofrequency Fields ($B_1$) |
| 11:15 AM - 11:45 AM | MRI Safety – Considerations for Engineering Controls  
| • MR safety zones  
| • MR construction and shielding design  
| • MR safety equipment |
| 11:45 AM - 12:00 PM | Discussion and Q&A Session           |
| 12:00 PM - 1:30 PM | Session 3
| MRI Safety – Considerations for Administrative and Procedural Controls  
| • Signs and labels  
| • MR Safety training  
| • Patient positioning  
| • MR Safety audits  
| • Access control  
| • MR Safety screening  
| • Claustrophobia, anxiety, distress  
| • MR Safety Committee  |
| 1:30 PM - 2:30 PM | MRI Safety – Special Considerations  
| • Implants, Devices, Objects and Interpreting Instructions For Use (IFU) |
| 2:30 PM - 3:30 PM | Prayer and Afternoon Break            |
| 3:30 PM - 4:00 PM | Session 4
| MRI Safety – Special Considerations  
| • Gadolinium based contrast agents  
| • Pregnancy and breastfeeding  
| • Emergencies in the MR environment  
| • Cryogen safety  
| • Hybrid modalities |
| 4:00 PM - 4:45 PM |                                        |

### Speaker

Maxwell Amurao, PhD  
Director, Office of Radiation Safety  
Washington University in St. Louis  
St. Louis, Missouri, USA

### Targeted Audience:

- Medical Physicists  
- Radiologists  
- MRI Technologists  
- Biomedical Engineers