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Safety of Devices and Magnetic Resonance Imaging guided Interventions and Surgery, 2nd hands on course

SINAPSE event - www.sinapse.co.uk

Integrated Interventional Imaging Operating System IIOS Training event

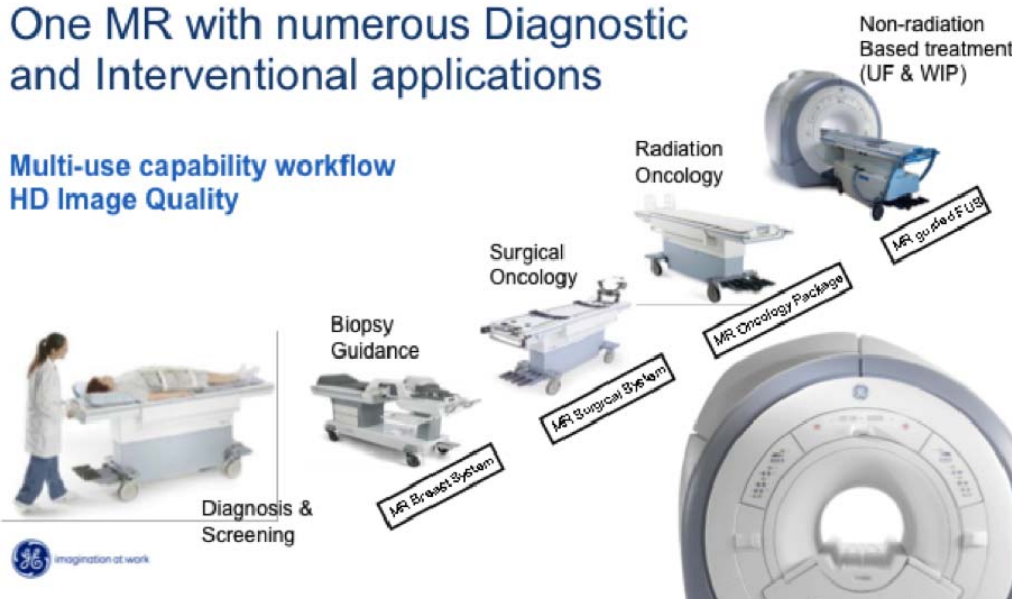
Institute for Medical Science and Technology IMSaT, University Dundee, Scotland
 GE's First European Center of Excellence in MRI guided Interventions and Surgery
 In collaboration with InSightec, Haifa, Israel and Innomotion i.G. Munich, Germany

Pre-Seminar June 2nd UK and Scottish regulations regarding MRI safety and MRI procedures

12:00 - 13:00	Welcome reception lunch Introduction to SINAPSE	Janet De Wilde, SINAPSE EM
13:00 - 14:30	Basics of MR Imaging safety in relation to clinical aspects of interventional techniques <ul style="list-style-type: none"> - Imaging procedures - Work flow & staffing issues - Clinical trials in IR 	Graeme Huston SINAPSE chair Dundee
14:30 - 15:00	Coffee Break	
15:00 - 16:30	Basics of MR technical aspects <ul style="list-style-type: none"> - MR safety regulation in the UK and Scotland - Approval of MRI systems for clinical use - experimental imaging 	Stephen Gandy Dundee
16:30-17:30	Basics of MR product safety <ul style="list-style-type: none"> - Medical Device regulation EU - UK - Safe use of ancillary equipment - Maintenance and Quality assurance 	(Scot Reid, TBC) John Ferut GE Health Care
	Discussion	Houston/Gandy

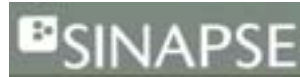
One MR with numerous Diagnostic and Interventional applications

Multi-use capability workflow
 HD Image Quality





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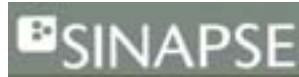
June 3, 2010 IIOS intra network level training event

08:00 - 08:30	Welcome reception Breakfast snack sponsored by www.MagResource.com MRI Implant Safety Database	
08:30 - 09:00	Introduction MR Safety Seminar Content and local rules	Melzer, Kugel, Schaefers Zylka
09:00 - 10:25	Basics of MR physics and technical aspects I - Physics of MRI (spin, magnetization, MR signal) - MR image acquisition (RF pulse sequences, gradients, geometry, signal to noise and contrast, contrast agents)	Kugel
10:25 - 10:35	Break	
10:35 - 12:00	Basics of physics and technical aspects II - MR Imaging techniques (fast imaging, Perfusion. Diffusion, Spectroscopy, etc.) - MR hardware revisited (static magnetic field, gradients and RF coils)	Kugel/Zylka
12:00 - 13:00	Lunch break, Lunch sponsored by www.metrasens.com – Ferroguard - The Future in MRI safety	
13:00 - 15:00	Hands-on: MR basics I - Preventive measures and safety in the MR environment (staff & items) - Workflow with Ferrodetector (topic sponsored by Metrasens Ferroguard, UK) - Hands On, Basic MR imaging: Sequence selection, planning geometry and contrast	Kugel Collinge, Melzer Schaefers Zylka
15:00 - 15:10	Break	
15:10 - 16:30	Advanced techniques, Safety & Implants - Research & Trends - Numerical simulation and modelling	Zylka
16:30 - ~ 18:00	Hands-on: MR basics II - MR imaging: image quality, artefacts	Kugel/Zylka
~ 18:00 – open end	Discussion	Kugel, Melzer Schaefers, Zylka

Subject to alteration



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4. June 2010

08:00 - 08:15	Breakfast	
08:15 - 09:40	MR safety and compatibility I of medical devices (and items) - Interactions of medical devices with the MR environment - Current standards & guidance	Schaefers
09:40 - 09:50	Break	
09:50 - 10:25	MR safety and compatibility II of medical devices (and items) - MR testing methods - Marking of medical devices for the MR environment	Schaefers
10:25 - 10:30	Break	
10:30 - 11:45	MR safety, the MR system and the MR worker – IEC 60601-2-33 - Requirements of the MR system and the MR environment	Engels
11:45 - 11:50	Break	
11:50 - 12:45	MRI from a clinical view I - Diagnostics & Therapy - Surgery & Interventions (Biopsy, Ablation (RF, Laser), etc.)	Melzer
12:45 - 13:30	Lunch break, Lunch sponsored by www.MRI-Tec.com - Your Distributor for MRI - Tools – Accessories - Equipment	
13:30 - 16:00	Hands-on: MR Intervention (limited to 6 part.) - MR guided Puncture of an ex vivo kidney model	Melzer/Schaefers
16:00 - 16:10	Break	
16:10 - 17:20	MRI from clinical view II Robotics, Navigation, Visualisation of implants and Instruments	Melzer
17:20 – open end	Wrap up discussion with snack “Whiskey tasting”	Melzer, Kugel, Schaefers, Zylka

Subject to changes



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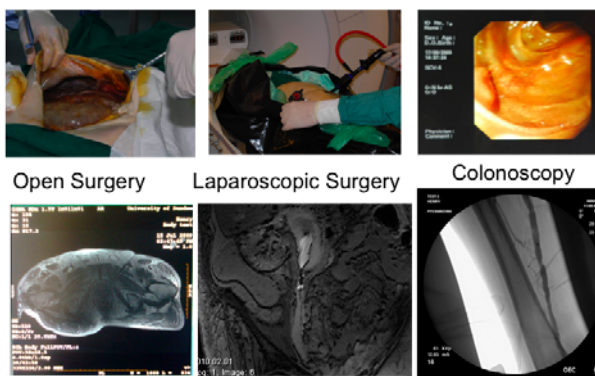
Hands on MR guided interventions and Surgery on Thiel soft embalmed human cadaver

Limited to 8 participants

08:00 - 08:15	Welcome reception and introduction Breakfast	
08:15 - 09:15	MR guided Focused Ultrasound	Alex Volovick, InSightec, Israel
09:15 - 11:15	Demonstration equipment for patient transfer - Neurosurgery and Neuronavigation - Optional Endoscopic Surgery	John Ferut, GE Health Care, Milwaukee, IL, USA
11:15 - 11:45	Coffee Break	
11:45 - 13:15	Basics of Hybrid x-ray and MR guided vascular interventions MR guided stent implantation - MR guided vena cava implantation	Arno Buecker, Homburg Saar, Germany (TBC) Andreas Melzer
13:15	Lunch	



Image guided procedures developed and trained on Thiel soft embalmed cadaver



MRI guided Biopsy and VCF implantation

Images property of IMSaT, University Dundee and have been taken from Thiels soft embalmed human cadaver prepared by the Centre of Human Anatomy and Identification of the University Dundee (Roos Eisma, Rogers Soames and Sue Black)

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