

23rd Annual Meeting

& Exhibition • 30 May-05 June 2015

SMRT 24th Annual Meeting • 30–31 May

Toronto, Ontario, Canada

www.ismrm.org • www.ismrm.org/smrt



GUIDE TO THE TECHNICAL & POSTER EXHIBITION 2015

ISMRM 23RD ANNUAL MEETING & EXHIBITION SCHEDULES

	EXHIBITION	MEETING REGIST			
Date	Time	Event/Location	Date	Time	Location
Sunday, 31 May	17:45 – 19:15	Opening Reception, Technical Exhibition Hall	Friday, 29 May	14:00 – 20:00	
Monday, 01 June	10:00 – 17:00	Metro Toronto Convention Centre, South Building	Saturday, 30 May	06:30 – 18:00	Lobby
Tuesday, 02 June	09:30 – 17:00	222 Bremner Boulevard, Toronto, Ontario M5V 3L9	Sunday, 31 May	07:00 – 19:00	Metro Toronto
3.		416 585 8000	Monday, 01 June	06:30 – 18:30	Conven-
Wednesday, 03 June	09:30 – 17:00	www.mtccc.org	Tuesday, 02 June		tion
	09:30 – 16:30	info@mtccc.com (general inquiries)	Wednesday, 03 June	06:30 – 18:00	Centre,
Thursday, 04 June	16:30 – 23:59	Exhibition Dismantle	Thursday, 04 June		South Building
	18:15 – 22:00	Closing Party, North Building, Exhibit Halls B&C	Friday, 05 June	07:00 – 12:30	

TRADITIONAL & E	LECTRONIC PO	STER VIEWING HOURS	SPEAKER READY ROOM (Audiovisual Preview)				
Date	Time	Event	Date	Time	Location		
Sunday, 31 May	07:00 – 14:00	Poster Installation		44.00.00.00			
Monday, 01 June		Viewing	Friday, 29 May	14:00 – 20:00	808 Swing Space		
Tuesday, 02 June	07:00 – 20:30	Viewing	Saturday, 30 May–		Metro Toronto		
Wednesday, 03 June		Viewing	Thursday, 04 June	07:00 – 18:00	Convention Centre,		
T	07:00 – 16:30	Viewing		07.00 10.00	South Building		
Thursday, 04 June	16:30 – 18:00	Poster Dismantle	Friday, 05 June	07:00 – 12:30			

CORPORATE SYMPOSIA									
Date	Date Time Presenter		Room						
Monday, 01 June	13:00 – 14:00	Philips Healthcare (GOLD)	Plenary Hall						
T 1 00 1	12:15 – 13:15	Siemens Healthcare GmbH (GOLD)	Plenary Hall						
Tuesday, 02 June	18:30 – 20:30	Bracco (BRONZE)	Meeting Room 701 A						
Wednesday, 03 June	12:15 – 13:15	GE Healthcare (GOLD)	Plenary Hall						

	HANDS ON WORKSHOPS									
Date	Time	Presenter	Room							
Wednesday, 03 June	1: 10:00–12:00 2: 13:30–15:30	GE Healthcare	Meeting Room 703							
Thursday, 04 June	3: 10:30–12:30 4: 13:30–15:30	Philips Healthcare Siemens Healthcare GmbH	Meeting Room 707 Meeting Room 711							

PRODUCT THEATRE SCHEDULE • BOOTH 623									
Date	Time	Exhibitor	Visit Exhibitors at:						
Tuesday, 02 June	12:00 – 13:15	Bruker	Booth # 101						
	15:30 – 16:00	ZMT Zurich MedTech AG	Booth # 423						
Wednesday, 03 June	12:00 – 13:15	Olea Medical	Booth # 923						
	13:45 – 14:30	Skope Magnetic Resonance Technologies LLC	Booth # 212						

MEET THE TEACHER TIMES

"Meet the Teacher" breaks will follow each session.

Speakers remain available for one-toone interaction with attendees for at least 15 minutes immediately following each session.

These breaks provide an opportunity for informal questions and discussion.

Please note:
Schedules may have
changed since printing.
Please visit www.ismrm.org
for updates





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ASSOCIATE CORPORATE MEMBERS

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Thank You to our Meeting Sponsors

The ISMRM gratefully acknowledges and thanks the following companies for their support:

Metro Toronto Convention Centre

for financial support provided

Nova Medical, Inc.

for support of the pens

Siemens Healthcare GmbH

for support of the Opening Reception, hotel keycards and lanyards

Singapore Tourism Board

for support of the Exhibition Game and gifts

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for support of the Vango Photo Booth, city flags and Email stations

ISMRM Research & Education Fund

for support of Trainee Stipends

MESSAGE FROM THE PROGRAM CHAIR



Christine Chung, M.D.
Chair, ISMRM 23rd Annual Meeting & Exhibition Program Committee

As Chair of the ISMRM 23rd Annual Meeting & Exhibition, I welcome you to the largest meeting dedicated to magnetic resonance imaging. We hope you enjoy the world-class educational and global networking opportunities focused on the advancement and development of MR technology and research.

The logo for the ISMRM 23rd Annual Meeting expresses the ISMRM commitment to sustain and nurture "One

Community for Clinicians and Scientists." This premier forum for interaction between those who drive the technology and those who utilize it for patient care is the bridge that facilitates the tremendous advances in this diagnostic modality, with a remarkable impact on global healthcare.

This sense of "One Community" is infused in each of the five plenary sessions offered. State-of-the-art lectures cover a wide range of topics designed to captivate clinicians and scientists alike. Topics include: Big Data: Population Scale Imaging, MR Imaging of Patients with Implanted Devices, Doing More with Less, Fetal

& Placental Imaging: Technical & Clinical Aspects and Traumatic Brain Injury.

Two extraordinary speakers will share their cutting-edge research in our Mansfield (Elizabeth A. Morris, M.D., F.A.C.R., Memorial Sloan-Kettering Cancer Center) and Lauterbur (Franz Schmitt, Ph.D., Emeritus Siemens Healthcare) lectures this year. Over sixteen parallel weekend courses and over fifty weekday courses cover a broad range of educational content including topics on Body, Cancer,

Cardiovascular, Cross Cutting & Emerging Technologies, Diffusion/Perfusion, Musculoskeletal, Physics and Engineering.

Our 2015 Annual Meeting represents a very rich and varied educational program under the expert guidance of Mark A. Griswold, Ph.D., Vice-Chair of the AMPC, and his team of dedicated volunteers. Attendees can select from a wide range of offerings that will satisfy the needs

of physicians, clinical and basic scientists, engineers, MR technologists and other providers. Courses target a range of expertise, from the beginner to the expert.

We are excited to be holding this groundbreaking meeting in the city of Toronto, ON, Canada—a world-class hub for medicine and technology. This thriving metropolis reflects the soul of the ISMRM in many significant ways, particularly as an international crossroads and a union of diverse cultures.

We invite you to ignite your MR career through global networking and engage the One Community for

Clinicians and Scientists as we bridge the gap between clinical needs and technological solutions in Toronto, Canada.

On behalf of the Annual Meeting Program Committee, I welcome you to Toronto for the ISMRM 23rd Annual Meeting & Exhibition. We hope you will enjoy the program and the beautiful city of Toronto.

Christine Chung, M.D., Program Chair ISMRM 23RD Annual Meeting & Exhibition Program Committee

THE PROGRAM

COMMITTEE,

WELCOME TO THE

ISMRM

23RD ANNUAL

MEETING

& EXHIBITION"

"ON BEHALF OF



EDUCATIONAL CATEGORIES COLOR KEY • ISMRM 23RD ANNUAL MEETING & EXHIBITION

- BODY
- MSK
- NEURO
- CARDIAC
- GENERAL

CE&S:

Combined Educational & Scientific Session

ES:

Educational Session

WEEKEND EDUCA	TIONAL COURSES
Saturday, 30 May	Sunday, 31 May
08:00–16:00 Preclinical Imaging	08:30–17:00 Molecular Imaging
08:30–17:15 Clinical Cancer MRI: Case-Based	08:00-16:30 Body MRI: Optimize Your Clinical Practice
07:30–18:00 Neuro 1	07:30–18:00 Neuro 2
08:00–12:55 Cardiac MRI: Function, Perfusion & Viability	08:00–17:45 Clinical Interpretation & Advanced Imaging
14:00–17:50 Cardiovascular MRI: Vascular Flow & Angiography	09:00–16:40 Imaging Microstructure
08:00–12:20 Perfusion Imaging Brain & Body	08:00–12:00 Big Data: A Primer on Models & Methods
14:00–17:50 Quantitative Physiology	13:30–17:30 A Practical Guide to MR Safety
08:30-11:50 Advanced fMRI: Techniques & Applications	08:30–16:15 RF Engineering: Coils
14:00–17:50 Introduction to fMRI	
08:30–17:00 MR Systems Engineering	08:30–17:30 Imaging Acquisition & Reconstruction
08:30–18:00 MR Physics for	

Program information may have changed since printing.

Please visit: www.ismrm.org/15

Physicists

or download the ISMRM 23RD Annual Meeting mobile app for current program.



SUNRISE EDUCATIONAL SESSIONS (Tuesday through Thursday, 07:00-07:50)

Addressing Clinical Challenges in the Body with MRI

How Can MRI of Mouse Models Provide Value?

Tuesday: Fast Cardiac Imaging; Wednesday: 4D-Flow: Ready for Primetime?; Thursday: Clinical Challenges in Cardiovascular MRI

UTE: Applications & Advances

Contrast by Body Part: How & Why?

Brain Networks

Quantitative Musculoskeletal Imaging: Structure & Function

Tuesday: Neuroimaging: Infection; Wednesday: Neuroimaging: Dementia; Thursday: Neuroimaging: Vascular

Nuts & Bolts of Advanced Imaging

MRI: From Morphology to Physiology

WEEKDAY PROGRAMS & PLENARY SESSIONS (MONDAY TH	ROUGH FRIDAY)
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Monday, 01 June	Tuesday, 02 June	Wednesday, 03 June	Thursday, 04 June		
07:30-10:15	08:30-09:30 08:10-09:30		08:00-10:00		
Welcome & Awards		Plenary:	YIA Presentation		
Lauterbur Lecture	Plenary:	Doing More with Less			
Plenary: Big Data: Population – Scale Imaging	MR Imaging of Patients with Implanted Devices	NIBIB New Horizons Lecture	Mansfield Lecture Plenary: Fetal & Placental Imaging: Technical & Clinical Aspects		
BREAK: 10:15-10:45	BREAK: 09:30-10:00	BREAK: 09:30-10:00	BREAK: 10:00-10:30		
10:45–12:45	10:00-12:00	10:00–12:00	10:30-12:30		
CE&S: Quantitative Biomarkers in Liver MRI: How to Use Them in the Real World	ES: MRI in the Emergency Room	ES: MRI & Radiation Therapy	ES: Orthopedic Surgery: What Do I Need to Know Before & After Part 1: Arthritis		
ES: Osteoarthritis: Who, Where & Why?	ES: Analyze This! Practicalities of fMRI & Diffusion Data Analysis	CE&S: Cartilage- Imaging Techniques	CE&S: Traumatic Brain Injury		
CE&S: Hyperpolarized C-13 Imaging	ES: Research Meets Clinical: Incidental	CE&S: Please Hold Still Next Time: Challenges & Solutions in Patient Adherence	CE&S: Pediatric Imaging		
	Findings	Hands-On Workshop 1: Siemens, Philips, GE	Hands-On Workshop 3: Siemens, Philips, GE		
LUNCH SYMPOSIA OR	ON YOUR OWN				
14:15–16:15	13:30–15:30	13:30–15:30	13:30–15:30		
ES: ISMRM/SMRT Joint Forum: Whole Body DWI	ES: Multifarious Manifestations of Muscle Disease	CE&S: Cardiovascular Tissue Characterization	ES: Orthopedic Surgery: What Do I Need to Know Before & After? Part 2: Soft Tissue		
CE&S: Dementia	ES: Challenges in Quantitative Cardiovascular Imaging	ES: MR Economics	ES: Game Show:		
ES: Cancer Theranostics & Monitoring Therapy	ES: Genomics, Proteomics &	ES: Spine	Artifacts, Eh?		
with MRI	Big Data	Hands-On Workshop 2: Siemens, Philips, GE	Hands-On Workshop 4: Siemens, Philips, GE		
BREAK 16:15-16:30	BREAK 15:30-16:00	BREAK 15:30-16:00	BREAK 15:30-16:00		
16:30–18:30	16:00–18:00	16:00–18:00	16:00–18:00		
CE&S: Musculoskeletal Functional Imaging: Mechanics & More	CE&S: UTE & Zero TE Imaging Techniques & Applications	ES: Update on MRI Pulse Sequences for Body MRI	CE&S: Cardiovascular MRA With & Without Contrast		
ES: MR Physics & Techni	ques for Clinicians				
CE&S Quantitative Biomarkers in Renal MRI: From Morphology			CE&S: Quantitative Biomarkers of Chest Disease: The Role of		

Disease: The Role of MRI in a Multimodality

Practice

Friday, 05 June 10:30–11:30

> Plenary: Traumatic Brain Injury

ADJOURNMENT



Educational Course	Educational Course	Educational Course	Educational Course	Educational Course	Educational Course	Educational Course	Educational Course
Preclinical Imaging	Clinical Cancer MRI: Case-Based	Neuro 1	Cardiac MRI: Function, Perfusion & Viability (morning)	Perfusion Advanced fMRI: Imaging Brain & Techniques & Body Applications (morning) (morning)		MR Systems Engineering	MR Physics for Physicists
			08:00-12:55	08:00–12:20	08:30–11:50		
			Room 716 A/B	Room 718 A	Room 718 B		
			Educational Course	Educational Course	Educational Course		
			Cardiovascular MRI: Vascular Flow & Angiography	Quantitative Physiology (afternoon)	Introduction to fMRI (afternoon)		
08:00–16:00	08:30–17:15	07:30–18:00	14:00–17:50	14:00–17:50	14:00–17:50	08:30–17:00	08:30–18:00
Room 701 A	Room 701 B	Room 714 A/B	Room 716 A/B	Room 718 A	Room 718 B	Room 801 A/B	John Bassett Theatre 102 North Building

SMRT

SMRT 24TH ANNUAL MEETING At the Forefront of MR Education (Technologist/Radiographer Program)

Day 1 • 07:45–17:10 • Metro Toronto Convention Centre, North Building

SUNDAY, 31 MAY 2015

ISMRM 23RD ANNUAL MEETING • PROGRAM-AT-A-GLANCE

Educational Course	Educational Course	Educational Course	Educational Course	Educational Course	Educational Course	Educational Course	Educational Course
Molecular Imaging	Body MRI: Optimize Your Clinical Practice	Neuro 2	Clinical Interpretation & Advanced Imaging	Imaging Microstructure	Big Data: A Primer on Models & Methods (morning)	RF Engineering: Coils	Imaging Acquisition & Reconstruction
					08:00–12:00		
					Room 718 B		
					Educational Course		
					A Practical Guide to MR Safety		
08:30–17:00	08:00–16:30	07:30–18:00	08:00–17:45	09:00–16:40	13:30–17:30	08:30–16:15	08:30–17:30
Room 701 A	Room 701 B	Room 714 A/B	Room 716 A/B	Room 718 A	Room 718 B	Room 801 A/B	John Bassett Theatre 102 North Building

SMRT

SMRT 24TH ANNUAL MEETING At the Forefront of MR Education (Technologist/Radiographer Program)

Day 2 • 07:45–17:20 • Metro Toronto Convention Centre, North Building

ISMRM OPENING RECEPTION IN TECHNICAL EXHIBITION • EXHIBITION HALL • 17:45–19:15

ANNUAL MEETING & SESSION ROOM ETIQUETTE

The ISMRM Annual Meeting Program Committee requests your cooperation in observing the following guidelines for etiquette in session rooms. Please respect your colleagues and follow the rules.

- Standing in meeting rooms during a session is prohibited due to Health, Fire and Safety Regulations. Please be respectful of these strict ordinances and be seated immediately upon entering a meeting room. No exceptions.
- Videotaping, audiotaping or photographing the presentations is strictly prohibited.
- Mobile phones and pagers and other devices that can generate sound must be turned off in the session rooms.
- Attendees using laptop computers, personal digital assistants or other electronic devices generating light must sit in the back half of the room to avoid disturbing fellow attendees.
- Admission to the Educational Programs, the Scientific Sessions and the Technical Exhibition is restricted to individuals wearing name badges. Please wear your name badge at all times.
- Children under 16 are not allowed in any meeting sessions, Exhibit Hall, Poster Hall or evening events. No exceptions. Childcare for children four months to 12 years is available for hire onsite. Please visit the ISMRM registration desk for more information.

	SMRT 24 TH A	NNUAL MEETING: AT T	HE FO	REFRONT OF MR EDU	ICATION			
Time	Saturday, 30 May 2015, 07:45–	7:10 (6.50 Category A CE pending approval)	Time	Sunday, 31 May 2015, 07:45-	-17:20 (6.50 Category A CE pending approval)			
06:30	Registration (ISMRM Registration, Sout	h Building; Meeting in North Building)	07:00	Registration (ISMRM Registration, Sc	outh Building; Meeting in North Building)			
07:45	Welcome & Announcements Maureen N. Hood, Ph.D., R.N., R.T. (Mf Chris Kokkinos, B.App.Sc, PgCert, MF	R), FSMRT, SMRT President 2014 – 2015 RI, SMRT Program Chair 2015	07:45	Welcome & Announcements G. Barry Southers, M.Ed., R.T. (R)(MR), SMRT President 2015–2016 Chris Kokkinos, B.App.Sc., PgCert, MRI, SMRT Program Chair 2015				
	Forum 1: MR Ph Moderator: Vera K. Kimbrell, B.S			Forum 6: Body/Or Moderator: Kendra Huber, B	6,			
08:00	Physics for Technologists • Brian A.	Hargreaves, Ph.D.	08:00	Body DWI: A Biomarker in Cancer	• Dow-Mu Koh, M.D., MRCP, FRCR			
08:40	K-Space • Donald B. Plewes, Ph.D.		08:30	Rectum: Imaging Considerations	Gina Brown, M.D., MRCP, FRCR			
09:20	Artefacts: Causes & Cures • Martin	J. Graves, Ph.D.	09:00	Breast MRI Update • Elizabeth J.	Sutton, M.D., C.M.			
10:00	Break		09:30		emens Healthcare GmbH (no CE credit)			
	Forum 2: Musculosk Moderator: Nina U. Salma			Translate MRI Research Power into				
10:20	Sports Injuries in MSK • Garry E. Go		09:40		ate • Mukesh G. Harisinghani, M.D.			
.0.20	Diamond Sponsor Presentation: Phil		10:00	Break				
10:50	Making MR Accessible for Every Pat Marius van Meel, B.Sc. (MR)(R)(N)(T)			Forum 7: PARALLEI				
11:00	Sequence Design & Optimization fo Ben Allen Kennedy, B.App.Sc., Mst. (I	0 0		Emerging Technologies Moderator: Anne Marie Sawyer, B.S., R.T. (R)(MR), FSMRT	MR Management Moderator: Charles T. Stanley, BSRT (R)(CT)(MR), CIIP			
11:30	SMRT Annual Business Meeting (no C	E credit)		Compressed Sensing: Where to Core Leadership Disciplines				
12:00	Lunch		10:30	From Here? Michael Lustig, Ph.D.	Luann Culbreth, MBA, R.T. (R)(MR) (QM) (courtesy of AHRA)			
Fo	rum 3: Proffered Papers: MR Brain – In Moderator: Sheryl L. Foster, N	M.H.Sc. (MRS)(MRI)	11:00	7T MRI: Where We Stand Today & Where are We Headed? Manoikumar Saranathan Ph D (R)(MR)				
12:50	President's Award: The Light Bulb and Its Effect on Noise in P 31MR Spectroscopy @ 3.0T - Zahid Latif, R.T. (R)(MR)(CT)			Manojkumar Saranathan, Ph.D.	(R)(MR)			
13:10	1st Place Clinical Focus Award: Increasing Time of Inversion (TI) in Inversion Recovery Prepped-Fast Spoiled Gradient Recalled Echo (IRP-FSPGR) and Magnetization Prepared-Rapid Gradient Echo (MP-RAGE) for Infant Brain MRI at 3T –		11:30	PET-MR: What's Going On in Positron Emission Tomography? James Crowley, B.S., CNMT Guidelines & Best Practice Nancy A. Talbot, MAppSc, (MR)(R) (courtesy of CAMRT				
	Mark Aaron Smith, M.S., R.T. (R)(MR), ABMI		12:00 Lunch					
13:20	1st Place Research Focus Award: Evaluation Post Contrast Balanced Turbo Field Echo (I Diseases Morphology Understanding – Kirt	BTFE) Sequence: Its Possible Effects on	Forum 8	: Proffered Papers: The Use of MRI to I Moderator: Megan Cromer,	Evaluate Common Pathologies (no CE credit) Ph.D., App.Sc. (Hons)			
13:30	2 nd Place Research Focus Award: <i>Tissue Sp</i>		12:50	2 nd Place Clinical Focus Award: <i>Piriformis Syndrome</i> – Anthea Min, B.App.Sc. (MR				
	MPRAGE Sequence – Claire B. Mulcahy, E Forum 4: PARALLEL S		13:00	3 rd Place Research Focus Award: Susceptibility-Weighted Imaging (SWI) at 7T Showing Subcortical Abnormality in a Case of Atypical Epilepsy – Shawna L. Farquharson, B.Sc., M.Sc., Ph.D.				
	CARDIOVASCULAR	PEDIATRICS	13:10	3rd Place Clinical Focus Award: Overview of the Role of Cardiac MRI in Cryoablation of Paroxysmal Atrial Fibrillation Planning and Success – Tara Lawson, R.T. (CT)(R)				
	Moderator: Rhonda F. Walcarius, B.Sc. (MRT)(R)(MR)	Moderator: Vanessa Louise Orchard, DCR (D), M.Sc.	13:20 SMRT Awards Presentation (no CE credit)					
	Introduction to CMR: Sequences	Location, Location, Location: The Fourth Ventricular Tumors in	Forum 9: Advanced Neuro Moderator: Shawna L. Farquharson, B.Sc., M.Sc., Ph.D.					
13:40	& Techniques Cindy R. Comeau, B.S., R.T. (N)	Charles A. Davis and M.D. Bir D.	14:00	DTI Processing: Pitfalls in Clinical Ap	plications • Alexander Leemans, Ph.D.			
	(MR), FSMRT	Charles A. Raybaud, M.D., Ph.D., FRCPC	14:30	Resting State fMRI • Joshua S. Shimony, M.D., Ph.D.				
	T1/T2 Mapping	Bribery, Tape & Hard Drugs-	15:00	Applications of Perfusion MR in the	Brain • Greg Zaharchuk, M.D., Ph.D.			
14:10	Christopher Jean-Pierre François, M.D.	Successful Pediatric MR Mark A. Smith, M.S., R.T. (R)(MR), ABMP	15:30	Break				
14:40	Why Cardiologists Like CMR Andrew Lewis, M.D.	Pediatric Cardiac MRI Taylor Chung, M.D.		Forum 10: MF Moderator: Amanda Louise Hur	•			
15:10	Break	,	15:50	How to Safely Scan Pacemakers •	Joao A. C. Lima, M.D., M.B.A.			
. 5. 10	Forum 5: Clinical	Neuro	16:20	Retained Gadolinium/Gadolinium Update • Richard C. Semelka, M.D.				
	Moderator: James Stuppino		16:50	The Role of the Technologist in MR Safety • Emanuel Kanal, M.D., F.A.C.R.				
15:30	MRI in Low Back Pain • Johan W.M	. Van Goethem, M.D., Ph.D.	17:20	Closing Remarks/Adjourn				
16:00	Diamond Sponsor Presentation: GE New Clinical Solutions from GE Hea			MONDAY 01 JUNE: ISMRM	/SMRT JOINT FOR IM			

16:10

16:40

17:10

17:20

19:30

Traumatic Brain Injury • Pratik Mukherjee, M.D., Ph.D.

Announcements/Adjourn

MRI in Neurodegenerative Disease • Stephen E. Jones, M.D., Ph.D.

SMRT Poster Presentations – Located in exhibitor display area (until 18:20)
SMRT Annual Meeting Welcome Reception – "Imperial Room" at the

Fairmont Royal York, 100 Front Street W., Toronto, ON, Canada

MONDAY 01 JUNE: ISMRM/SMRT JOINT FORUM Whole Body DWI

Program information may have changed since printing. Please visit www.ismrm/org/smrt for program updates.

Exhibition Hall 10:00-17:00 • Traditional Poster Hall 07:00-20:30

TIN 45	III 10:00–17:0								DDE6	ENITED				
TIME	ROOM	PLENARY					PRES	SENTER						
07:30	-	Welcome & Awards					Jeffrey Joseph Neil, M.D., Ph.D., ISMRM 2014–2015 President					President		
08:30	Plenary Hall	& RF & its In	auterbur Lecture: About Recent Developments of Gradients, Magr RF & its Impact on MR Imaging: A Collaborative Effort of Academ esearch & MR Industry					Franz	z Schmitt, P	h.D.				
	Plena	ary Session: I	Big Data: I	Population—	Scale Imagi	ing • O	rganizer	s: James	C. Gee	e, Ph.D. & [Daniel C.	Alexande	r, Ph.D.	
09:15		What is Big	Data?						Paul	Thompson	, Ph.D.			
09:35	1	Collecting B	Collecting Big Data						Moni	que Bretel	er, M.D.,	Ph.D.		
09:55	Plenary Hall	Big Data in A	Action						Viren	Jain, Ph.D				
10:15		Adjournmer	t											
10:15–10:45	BREAK													
10:45–12:4	ļ5													
	itional Poster Se Cancer, Muscul Exhibition	oskeletal	dit)			iffusion,	Session Perfusio ion Hall	(no CME credit)			Psyc	hiatric MR	oup Session (no CME Spectroscopy & l otion Hall 104 BCD	
Power Pitch Session (no CME credit)	Scientific Session	Scientific Session		entific ession	Scientific Session		ntific sion	Scienti Sessio		Scientifi Session	. '	Combined Educational 8 ientific Session	Educational	Combined Educational & Scientific Session
Microstructure in CNS	New Insights & Innovations in Cardiovascular	Young Investigato Awards Presentation	- &Th	erapy F	fMRI: iting-State unctional nnectivity	Meth MR Non-f	ncoding od for 2S & Proton 1RI	Brain Tu Imagii Focus Treatm	ng: Reconstruc- tion Methods		Novel Image Quare Reconstruc- Bio		Osteoarthritis Who, Where 8 Why?	: Hyperpolar-
Power Pitch Theatre, Exhibition Hall	Constitution Hall 105	Room 701 A	Roon	n 701 B Roo	om 714 A/B Room 716		716 A/B	Constitu Hall 1				Room 718 <i>A</i>	Room 718 B	Room 801 A/E
12:45–14:15	LUNCH													
13:00–14:00	Gold Corpora	ite Symposiu	n (no CME crea	dit) ● Philips H	ealthcare •	Plenary	Hall							
14:15–16:1	5													
Young Investig	Poster Session (n gator Award Pres Exhibition Hall			onic Poster Se gineering, UH Exhibition	, MR Safety			o-Magnet	ic Tissu	sion (no CME cr le Propertie 104 BCD		Sto	udy Group Sessio MR Spectroso Constitution Ha	юру
Power Pitch Session (no CME credit)	Scientific Session	Scient Sessi		Scientific Session	Scien Sess			entific ssion		cientific Session		ational ssion	Combined Educational & Scientific Session	Educational Session
Powerful Acquisition	Cartilage Imaging: Technical Development	Relaxor Applica throughous Boo	tions out the	fMRI Applications, Including Optogenetics	Hepatol	biliary I	Phant	usion coms & dation		ovascular Stroke 1	Joint Whol	N/SMRT Forum: e Body WI	Dementia	Cancer Theranostics & Monitoring Therapy with MRI
Power Pitch Theatre, Exhibition Hall	Room 701 A	Room 7	01 B	Room 714 A/B	Room 7	16 A/B		ution Hall 07	John Bassett Theatre 102		Roon	1718 A	Room 718 B	Room 801 A/B
16:15–16:30	BREAK													
16:30–18:30)													
	Poster Session (n Neuro A Exhibition Hall	o CME credit)	Relaxa	onic Poster Se ation, Magneti ation Transfer, Exhibition	Susceptibi Pulse Seque	lity,	S	1	MR Saf	sion (no CME cr ety 104 BCD	edit)	Sto	udy Group Sessio Diffusion Constitution Ha	
Power Pitch Session (no CME credit)	Scientific Session	Scient Sessi		Scientific Session	Scien Sess	entific Scientific ssion Session				cientific Session	Educa	ibined tional & ic Session	Combined Educational & Scientific Session	Educational Session
The Cardiovascular Power Hour	Perfusion & Permeability Contrast Age Methods	: Methodo	logical ches	fMRI: Physiology	Can Precli Studi Animal I	nical es of	Mechanisms Si		Mu	ultaneous ulti-Slice naging	Fund Ima Med	oskeletal tional ging: hanics More	Quantitative Biomarkers in Renal MRI: From Morphology to Physiology	MR Physics & Techniques for Clinicians
					_	Animal Models Damage					-	111/3101099		
Power Pitch Theatre, Exhibition Hall	Room 701 A	Room 7	01 B	Room 714 A/B	Room 7	16 A/B		titution I 107		n Bassett eatre 102	Roon	n 718 A	Room 718 B	Room 801 A/B

YOUNG INVESTIGATOR AWARDS FINALISTS PRESENTATION

The winners of the Young Investigator Awards will be presented on Thursday, 04 June 2015, at 08:00 in the Plenary Hall.

Finalist	Award Category	Poster	Торіс	Date	Presentation	Time	Room
Bo Zhu	I. I. Rabi	29	Selective Magnetic Resonance Imaging of Magnetic Nanoparticles	Monday,	Oral Presentation	10:45	701 A
Bo Znu	I. I. Rabi	29	by Acoustically Induced Rotary Saturation (AIRS)	01 June 2015	Poster Presentation	14:15	Exhibition Hall
		20	Spin Echoes in the Regime of Weak	Monday,	Oral Presentation	11:05	701 A
Jakob Assländer	I. I. Rabi	30	Dephasing	01 June 2015	Poster Presentation	15:15	Traditional Poster Hall
M. I. Cl.:		24	k-t FASTER: Acceleration of fMRI	Monday,	Oral Presentation	11:25	701 A
Mark Chiew	I. I. Rabi	31	Data Acquisition Using Low Rank Constraints	01 June 2015	Poster Presentation	14:15	Exhibition Hall
	W. S.	20	Free-Breathing Pediatric MRI with	Monday,	Oral Presentation	11:45	701 A
Joseph Yitan Cheng	Moore	32	Nonrigid Motion Correction & Acceleration	01 June 2015	Poster Presentation	15:15	Exhibition Hall
M .: TF ::	W. S.	22	In vivo Visualization of Microscopic Anatomy of Healthy & Pathological	Monday,	Oral Presentation	12:05	701 A
Martin T. Freitag	Moore	33	Lymph Nodes Using 7 Tesla MRI: A Feasibility Study	01 June 2015	Poster Presentation	14:15	Exhibition Hall
A K	W. S.	24	Automatic & Quantitative Assessment of Regional Muscle	Monday,	Oral Presentation	12:25	701 A
Anette Karlsson	Moore	34	Volume by Multi-Atlas Segmentation Using Whole-Body Water-Fat MRI	01 June 2015	Poster Presentation	15:15	Exhibition Hall

ISMRM STUDY GROUP SCHEDULE • JOIN TODAY!

ISMRM Study Groups are established to foster interaction among members with a common interest in topical and active areas of MR. If you are interested in joining any of the ISMRM Study Groups, please contact the ISMRM membership department: membership@ismrm.org.

If you are interested in joining any of the ISMRM Study Groups, pie	ease contact the ISMRM membership department: membership@ismrm.org.
Cardiac MR: Tuesday, 02 June 2015 • 10:00–12:00 • Constitution Hall 105	MR Elastography: Wednesday, 03 June 2015 • 10:00–12:00 • Reception Hall 104 BCD
Current Issues in Brain Function: Wednesday, 03 June 2015 • 16:00–18:00 • Constitution Hall 105	MR Engineering: Wednesday, 03 June 2015 • 13:30–15:30 • Constitution Hall 105
Detection & Correction of Motion in MRI & MRS: Thursday, 04 June 2015 • 13:30–15:30 • Reception Hall 104 BCD	MR Flow & Motion Quantitation: Tuesday, 02 June 2015 • 13:30–15:30 • Reception Hall 104 BCD
Diffusion: Monday, 01 June 2015 • 16:30–18:30 • Constitution Hall 105	MR Safety: Monday, 01 June 2015 • 16:30–18:30 • Reception Hall 104 BCD
Electro-Magnetic Tissue Properties (SWI): Monday, 01 June 2015 • 14:15–16:15 • Reception Hall 104 BCD	MR Spectroscopy: Monday, 01 June 2015 • 14:15–16:15 • Constitution Hall 105
High Field Systems & Applications: Tuesday, 02 June 2015 • 13:30–15:30 • Constitution Hall 105	Musculoskeletal MR: Wednesday, 03 June 2015 • 13:30–15:30 • Reception Hall 104 BCD
Hyperpolarized Media; Hyperpolarization Methods & Equipment: Wednesday, 03 June 2015 • 10:00–12:00 • Constitution Hall 105	Perfusion: Tuesday, 02 June 2015 • 16:00–18:00 • Constitution Hall 105
Interventional MR: Wednesday, 03 June 2015 • 16:00–18:00 • Reception Hall 104 BCD	Psychiatric MR Spectroscopy & Imaging: Monday, 01 June 2015 • 10:45–12:45 • Reception Hall 104 BCD
Molecular & Cellular Imaging: Thursday, 04 June 2015 • 10:30–12:30 • Reception Hall 104 BCD	White Matter: Tuesday, 02 June 2015 • 16:00–18:00 • Reception Hall 104 BCD
MR of Cancer: Thursday, 04 June 2015 • 13:30–15:30 • Room 801 A/B	X-Nuclei Imaging: Thursday, 04 June 2015 • 16:00–18:00 • Reception Hall 104 BCD
MR in Drug Research: Tuesday, 02 June 2015 • 10:00–12:00 • Reception Hall 104 BCD	



Exhibition Hall 09:30–17:00 • Traditional Poster Hall 07:00–20:30

TIME		ROOM	S	UNRISE	EDUCATIONAL S	SESSIONS				Plenary	Session		
07:00-	R	Room 701 A			cal Challenges in t		-		MR Imaging o				
07:50		titution Hall 107			Mouse Models Pr		TIME	ROOM		nizer: Dai -ENARY	niel Ennis, Ph		SENTER
		oom 714 A/B	Fast Car				1	Plenary			(D :: .		
	Ro	oom 716 A/B			s & Advances		08:30	Hall	MR Safety Con- with Implanted		is for Patients	Niels Kuste	r, Ph.D.
	R	Room 718 A	Contrast	t by Bod	y Part: How & Why	?			MR Imaging of	Patients	with		
	F	Room 718 B	Brain Ne	etworks	•		08:50		Implanted Met			Brian A. Ha	rgreaves, Ph.D.
	Ro	oom 801 A/B	Cartilag	e Structu	re & Function				MRI in the Setti				
	F	Room 701 B	Neuroim	naging: lı	nfection		09:10		Pacemakers & Defibrillators	mplantab	ole	Saman B. N	lazarian, M.D.
	John Ba	assett Theatre 102	Nuts & E	Bolts of A	Advanced Imaging		09:30		Adjournment				
09:30–1	0:00	BREAK											
10:00-	12:00												
Tradit	Body,	oster Session (no c Interventional chibition Hall	ME credit)	Elec	tronic Poster Sess Neuro A Exhibition H		Stu	MR in E	p Session (no CME cn Drug Research on Hall 104 BCD	edit)	•	Group Sessic Cardiac M Constitution Ha	R
Power Pitch (no CME		Scientific Session	Scier Sess		Scientific Session	Scientific Session	Scient Sessi		Scientific Session	Educa Sess		Educational Session	Educational Session
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Power Theat	tre,	Room 701 A	Room	701 B	Room 714 A/B	Room 716 A/B	Constitut		John Bassett Theatre 102	Room 718 A		oom 718 B	Room 801 A/B
12:00–1	3:30	LUNCH											
12:15–1	3:15	Gold Corpora	te Sympos	sium (no CN	ME credit) • Siemens I	Healthcare GmbH	• Plenar	y Hall					
13:30-	15:30	-						·					
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Power										Disease Room 718 A			
Theat Exhibitio		Room 701 A	Room	701 B	Room 714 A/B	Room 716 A/B	Constit Hall	I	John Bassett Theatre 102	Room	718 A R	oom 718 B	Room 801 A/B
	n Hall	Room 701 A BREAK	Room	701 B	Room 714 A/B	Room 716 A/B		- 1		Room	718 A R	doom 718 B	Room 801 A/B
Exhibition 15:30–1	6:00		Room	701 B	Room 714 A/B	Room 716 A/B		- 1		Room	718 A R	oom 718 B	Room 801 A/B
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Exhibition Hall 09:30-17:00 • Traditional Poster Hall 07:00-20:30

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TIME		ROOM	9	SUNRISE	EDUCATIONAL	SESSIONS			·:	~l			Doing M					
07:00–	Ro	oom 701 A	Addressir	ng Clinica	al Challenges in th	e Body with	MRI	TIME	ROO!		opner ivi. C PLENARY	Joilins, Pr	1.D. & Ala	ionong .	PRESEN	Ph.D., D.A.B.R TER		
07:50		itution Hall 107			Mouse Models Pro	vide Value?		08:10	Plenar	ry	Emerging (_	es Faced	by the		T. Modic, M.D.		
		om 714 A/B om 716 A/B			or Primetime?			08:30			MRI Service	es in Reso		ited,	Pek-Lar	Khong, M.D.		
		oom 718 A			& Advances Part: How & Why?	ı					Underserve Using Techr			with		<u> </u>		
		oom 718 B	Brain Net		i art. How & vvily!			08:50			Less				John M	. Pauly, Ph.D.		
		om 801 A/B			uloskeletal Imagino	ı: Structure &	Function	n 00.10			NIBIB New Emerging N			e	Qiyong	Gong, M.D.,		
		oom 701 B	Neuroima			,. o dotal o a		<u>n</u> 09:10			"Disordere Era of "Psy			n an	Ph.D.			
	John Bas	ssett Theatre 102			dvanced Imaging			09:30	Adjo	urnm		crio-readi	ology :					
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Exhibition Hall 09:30–16:30 • Traditional Poster Hall 07:00–16:30

TIME	ROOM	SUNRISE EDUCATIONAL SESSIONS	TIME	ROOM	PLENARY SESSION	PRESENTER
07:00-	Room 701 A	Addressing Clinical Challenges in the Body with MRI	08:00	Plenary Hall	Young Investigator Awards Presentation	James G. Pipe, Ph.D.,
07:50	Constitution Hall 107	How Can MRI of Mouse Models Provide Value?			2015-2016 ISMRM President	
	Room 714 A/B	Clinical Challenges in Cardiovascular MRI	08:15		Mansfield Lecture: MRI in the Era of Personalized Medicine	Elizabeth A. Morris, M.D., F.A.C.R.
	Room 716 A/B	UTE: Applications & Advances			Plenary Sessions	
	Room 718 A	Contrast by Body Part: How & Why?		Orga	Fetal & Placental Imaging: Technical & Cli anizers: Patricia Ellen Grant, M.D. & Jeffrey	·
	Room 718 B	Brain Networks	09:00	Plenary Hall	Technical Aspects/Challenges	Joseph V. Hajnal, Ph.D.
	Room 801 A/B	Bone Structure & Bone Interface	09:20		Clinical Aspects of Fetal Brain Imaging	Orit A. Glenn, M.D.
	Room 701 B	Neuroimaging: Vascular	09:40		Clinical Aspects of Imaging the Placenta	Daniela Prayer, M.D.
	John Bassett Theatre 102	Nuts & Bolts of Advanced Imaging	10:00 Adjournment			

10:00–10:30 BREAK

10:30-12:30

Traditi	onal Poster Sessio Cardiovascula Exhibition Hall		Electronic Poster Session (no CME credit) Cardiovascular Exhibition Hall					Study Group Session (no CME credit) Molecular & Cellular Imaging Reception Hall 104 BCD				
Power Pitch Session (no CME credit)	Scientific Session	Scientific Session	Scientific Session	Scientific Session		Scientific Session	Scientifi Session	:			Combined Educational & Scientific Session	Combined Educational & Scientific Session
High Field Applications	Fetal & Neonatal Imaging: Clinical	CESToronto	Perfusion & Permeability Validation Studies	Diabetes Metabolis & GI		Motion Correction	Multipl Sclerosis	1 S	Surg Do (nov Afte	hopedic ery: What Need to v Before & er? Part 1: rthritis	Traumatic Brain Injury	Pediatric Imaging
Power Pitch Theatre, Exhibition Hall	Room 701 A	Room 701 B	Room 714 A/B	Room 716 A	4/ B	Constitution Hall 107	John Bass Theatre 1	Room /18 Δ		om 718 A	Room 718 B	Room 801 A/B
Hands-On Wor	kshop 3 (no CME credit)	Siemens Heal	thcare GbmH • I	Room 711	G	E Healthcare • Ro	om 703	Philips Healthcare • Room 707			707	

12:30–13:30 LUNCH

13:30-15:30

	ter Session (no CME credit Diffusion Libition Hall		C Poster Session (no C) ar Imaging, Spectroso Exhibition Hall	ID .		dy Group Session (& Correction of Motion Reception Hall 104 I	on in MRI & MRS	Study Group Session (no CME credit MR of Cancer Room 801 A/B		
Power Pitch Session (no CME credit)	Scientific Session	Scientific Session	Scientific Session	Scientific Session		Scientific Session	Scientific Session	Educational Session		
Body	Novel RF Coil Concepts	MR Guided Interventions	CE & Non CE: Innovations Around the Body	Breast Can Clinical Technica	&	Brain Oxygenation, Perfusion & Metabolic Rate	Multiple Sclerosis 2	Orthopedic Surgery: What Do I Need to Know Before & After? Part 2: Soft Tissue	Game Show: Artifacts, Eh?	
Power Pitch Theatre, Exhibition Hall	Room 701 A	Room 701 B	Room 714 A/B	Room 716 A	A/B	Constitution Hall 107	John Bassett Theatre 102	Room 718 A	Room 718 B	
Hands-On Works	shop 4 (no CME credit)	Siemens Healtho	care GbmH • Room	711		GE Healthcare •	Room 703	Philips Healthcar	Philips Healthcare • Room 707	
15 20 17 00	DDEAK									

15:30–16:00 BREAK

16:00-18:00

Study Group Session (no CME credit) X-Nuclei Imaging Reception Hall 104 BCD

Scientific Session	Scientific Session	Scientific Session	Scientific Session	Scientific Session	Scientific Session	Combined Educational & Scientific Session	Combined Educational & Scientific Session	Educational Session
RF Pulse Design	Methods of Magnetic Susceptibility & Electromagnetic Tissue Property Mapping	Bone & UTE	Abdomen/Pelvis	Diffusion Acquisition	Normal Brain Anatomy & Morphometry	Cardiovascular MRA With & Without Contrast	Quantitative Biomarkers of Chest Disease: the Role of MRI in a Multimodality Practice	MR Physics & Techniques for Clinicians
Room 701 A	Room 701 B	Room 714 A/B	Room 716 A/B	Constitution Hall	John Bassett Theatre 102	Room 718 A	Room 718 B	Room 801 A/B
18:15–22:00	Closing Party, MT	FCC, North Building	ı, Halls B&C					

08:00-10:00								
Scientific Session	Scientific Session	Scientific Session	Scientific Session	Scientific Session	Scientific Session	Scientific Session	Scientific Session	Scientific Session
Proton MRSI Methods	Magnetization Transfer	Novel Techniques for Cardiac Perfusion & Function	Gradient Field Engineering & Monitoring	Diffusion Weighted Image Analyses	Pulmonary MRI – Proton & Non-Proton Applications	Cancer: Prostate Cancer	Elastography	Multimodality Approach for Traumatic Brain Injury
Room 701 A	Room 701 B	Room 714 A/B	Room 716 A/B	Room 718 A	Room 718 B	Room 801 A/B	Constitution Hall 107	Plenary Hall FG
10:00–10:30	BREAK							

		Plenary Session Traumatic Brain Injury Organizer: Robert E. Lenkinski, Ph.D.	
TIME	ROOM	PLENEARY SESSION	PRESENTER
10:30	Plenary Hall	Traumatic Brain Injury in War	Geoffrey Ling, M.D., Ph.D.
10:50		Chronic Traumatic Encephalopathy: The Last Seven Years	Ann C. McKee, M.D.
11:10		Neuroimaging of Traumatic Brain Injury, Including Magnetoencephalography	Roland R. Lee, M.D.
11:30		Adjournment	



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07-13 May 2016 • Singapore

ISMRM 24th Annual Meeting & Exhibition • SMRT 25th Annual Meeting: 07-08 May 2016

22-28 April 2017 • Honolulu, HI, USA

ISMRM 25th Annual Meeting & Exhibition • SMRT 26th Annual Meeting: 22–23 April 2017

14-20 April 2018 • Paris, France

ISMRM 26th Annual Meeting & Exhibition • SMRT 27th Annual Meeting: 14-15 April 2018

11-17 May 2019 • Montreal, QC, Canada

ISMRM 27th Annual Meeting & Exhibition • SMRT 28th Annual Meeting: 11-12 May 2019

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19-22 July 2015 • Pacific Grove, CA, USA

ISMRM Workshop on Simultaneous Multi-Slice Imaging: Neuroscience & Clinical Applications

11-14 September 2015 • Pacific Grove, CA, USA

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09-11 October 2015 • La Jolla, CA, USA

ISMRM Workshop on MRI Cell Tracking for Visualizing Cellular Therapeutics & Inflammation

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This meeting has applied to the Commission on Accreditation of Medical Physics Education Programs, Inc. (CAMPEP) for 178.24 MPCEC credits.

Please consult our Web site for up-to-date information on accreditation.

SMRT ANNUAL MEETING

North America:

6.50 Category A CE credits for Saturday, 30 May; 6.50 Category A CE credits for Sunday, 31 May; 13 Total Category A CE credits for SMRT Annual Meeting. Monday ISMRM/SMRT Joint Forum, 2.00 Category A CE and selected ISMRM Annual Meeting sessions.

Australia:

Australia Institute of Radiology (AIR), CPD Activity is approved for the SMRT Annual Meeting and selected ISMRM Annual Meeting sessions.

New Zealand:

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United Kingdom:

College of Radiographers (UK) has approved the SMRT Annual Meeting for CPD Credits and selected ISMRM Annual Meeting sessions.

MONDAY-FRIDAY COURSES

Weekday sessions up to 35.25 AMA PRA Category 1 Credits™ (study group meetings, lunchtime programs, symposia, poster sessions [including Power Pitches and hands-on workshops] are not certified for credit).

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Preclinical Imaging	6.00
Clinical Cancer MRI: Cased-Based	6.00
Neuro 1	8.00
Cardiac MRI: Function, Perfusion &Viability	4.50
Cardiovascular MRI: Vascular Flow & Angiography	3.50
Perfusion Imaging Brain & Body	4.00
Quantitative Physiology	3.50
Advanced fMRI: Techniques & Applications	3.00
Introduction to Functional MRI	3.50
MR Systems Engineering	6.00
MR Physics for Physicists	7.00
Sunday Courses	Credits
Molecular Imaging	6.00
Body MRI: Optimize Your Clinical Practice	6.00
Neuro 2	8.00
Neuro 2 Clinical Interpretation & Advanced Imaging	8.00 7.50
1100.0 2	

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Imaging Acquisition & Reconstruction

RF Engineering: Coils

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OUTSTANDING TEACHER AWARDS

To recognize outstanding educational contributions to the ISMRM Annual Meeting, the Annual Meeting Program Committee will acknowledge the highest rated speakers in weekend and Monday–Friday educational courses. Recipients of these awards will be determined by the evaluation scores. Recipients will be recognized in MR Pulse and on the ISMRM website, in addition to receiving certificates of appreciation. Let us know about the outstanding teachers in our educational courses. Please fill out your evaluation forms completely.

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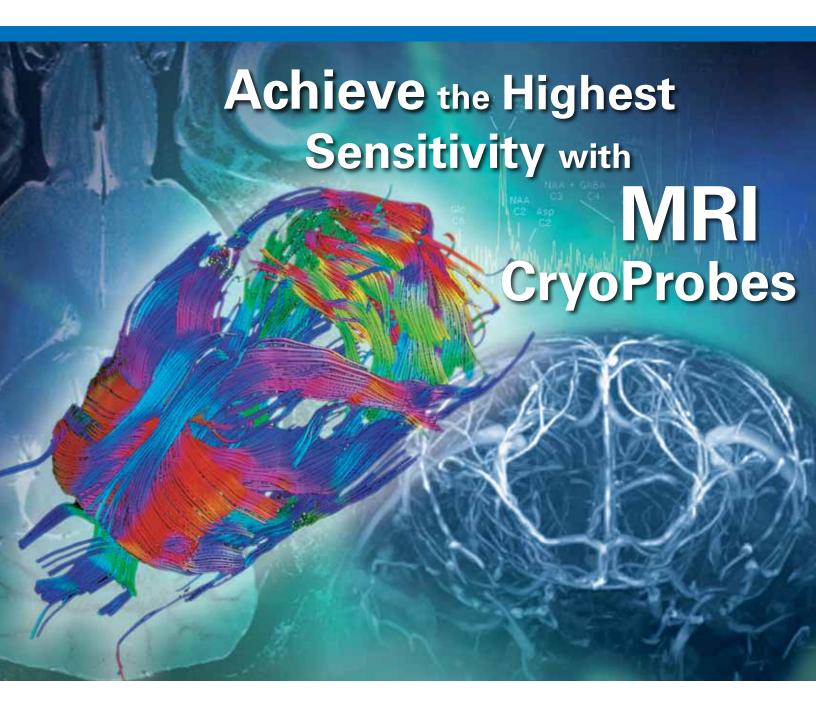
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www.corechsolutions.com

Our capabilities include the most advanced MRI-safe EEG/ERP, high-resolution video displays, eye-tracking, audio stimulation / communication and functional near-infrared spectroscopy (fNIRS). We are also the developer of the EMSE Suite software for ElectroMagnetic Source Estimation and integration of EEG/MEG signals with structural and functional MRI as well as other imaging modalities. In addition, we are pleased to announce the estab-

lishment of the Cortech Translational Solutions Center in La Mesa, California, with a primary focus on development of technologies to advance translational research. More broadly, we offer BCI systems, eye-tracking systems for use in the lab and with fMRI, EEG/ERP systems for the lab and for use with fMRI and TMS, functional NIRS systems and patented technology for measuring high-resolution scalp EEG and ERP from Wistar rats. About Cortech

Solutions: We specialize in innovative solutions for brain research, identifying best-in-class solutions, working with the manufacturers to ensure compatibility and offering the total package with a single source for technical support. We represent g.tec Medical Engineering, Biosemi, Cambridge Research Systems, MEGA EMG, Polhemus and many other world-class research instrument manufacturers around the world.

воотн 1112

CorTechs Labs, Inc.

4960 Executive Dr., Suite 250 • San Diego, CA 92121 USA

Phone: +1 858 459 9700 • Fax: +1 858 459 9705 • Email: sadams@cortechslabs.com

www.cortechslabs.com

CorTechs Labs develops and markets cutting-edge brain imaging solutions used by neurologists and radiologists in hundreds of clinics and research centers around the world. CorTechs' flagship product, NeuroQuant®, is a breakthrough, 510(k)-cleared and CE-Marked software that makes quantitative analysis of MRI images of the human brain a routine part of the clinical practice.

NeuroQuant® brings fully automated MRI post-processing capabilities to the medical professionals providing a convenient and cost-effective means to quantify atrophy of brain structures to help in the assessment of a variety of neurodegenerative disorders, including Alzheimer's, epilepsy, multiple sclerosis and traumatic brain injury. Stop by to hear more about our latest

NeuroQuant reports – Hippocampal Volume Asymmetry Report, Multiple Structure Atrophy Report and Triage Brain Atrophy Report. CorTechs Labs normative database range has been extended from 3 – 100 years old.

For more information please visit, www.cortechslabs.com.

воотн 701

CST – Computer Simulation Technology

492 Old Connecticut Path, Suite 500 • Framingham, MA 01701 USA

Phone: +1 (508) 665 4400 • Support: +1 (508) 665 4444 • Fax: +1 (508) 665 4401 • Email: info@us.cst.com

www.cst.com

CST develops and markets software for the simulation of electromagnetic fields. Its products allow you to characterize, design and optimize electromagnetic devices all before going into the lab or measurement chamber. The extensive range of tools integrated in CST STUDIO SUITE® enables numerous applications to be analyzed without leaving the user-friendly CST design environment and can offer additional security through cross

verification. CST's customers operate in industries as diverse as Defense, Telecommunications, Automotive, Electronics, and Medical Equipment.

ВООТН 703

Cubresa

11-1393 Border Street • Winnipeg, MB R3X 1L7 Canada Phone: +1 204 272 2409 • Fax: +1 855 294 3779 • Email: info@cubresa.com

www.cubresa.com

Cubresa provides small animal molecular imaging solutions, empowering biomedical and pharmaceutical researchers to better understand complex disease processes and develop innovative treatments.

Cubresa is developing an ultracompact, preclinical PET scanner for simultaneous PET/MRI imaging. The MR compatible scanner can be inserted into high field MRI systems from Bruker and Agilent, and features silicon photomultiplier based detector technology, minimizing any compromises in PET and MRI image quality. With new instrumentation combining time-synchronized anatomical, functional and metabolic information, preclinical researchers can evaluate time-sensitive physiological and pathophysiological processes *in vivo*—with a single scan.

In addition, Cubresa markets the SPARK™, an ultra-compact, high performance SPECT scanner for small animal *in vivo* imaging. The scanner is a fraction of the size of legacy systems,

while still providing excellent resolution, sensitivity and image quality. Due to its small footprint, the SPARK™ can seamlessly integrate with existing small animal CT systems, transforming them into hybrid imaging instruments for conducting cutting edge biomedical and drug discovery research.

To learn more, visit Cubresa at booth #703 or on our website: www.cubresa.

воотн 708



Doty Scientific, Inc.

700 Clemson Road • Columbia, SC 29229 USA

Phone: +1 803 788 6497 • Email: Laura@dotynmr.com • Email: Judy@dotynmr.com • Email: sales@dotynmr.com

www.dotynmr.com

Doty Scientific specializes in coils for small animal and pre-clinical imaging. Doty makes RF volume coils and surface coils as well as microscopy probes - which include gradients and RF. Doty's patented simple-tune Litz and Litzcage RF coils are easy to use, yet provide extraordinary homogeneity and unmatched S/N. Litz small animal

imaging platforms come in standard coil sizes, allow maximum flexibility for animal handling, and can be single or dual frequency. Litz imaging modules may have dimensions customized to your specifications, and can also be single or dual frequency.

Vertical bore microscopy probes with 5 to 12 mm diameter samples can be

tuned up to 900 MHz. With 350 G/cm pulsed gradient strength and Litz RF coils, the S/N is unmatched.

Hundreds of numerically optimized surface coils for up to twice the S/N are available as transmit-receive, receive only, passively detuned, or dual frequency, for many applications.

воотн 507

Electrical Geodesics, Inc. (EGI)

500 East 4th Avenue, Suite 200 • Eugene, OR 97401 USA Phone: +1 541 687 7962 • Fax: +1 541 687 7963

www.egi.com

EGI is the sole provider of the Geodesic EEG Platform for advanced brain research. Geodesic EEG offers the advantages of whole head coverage, dense array EEG for high spatial resolution, and the HydroCel Geodesic Sensor Net electrode placement system for exceptional comfort and ease of use. Geodesic EEG Systems

come with 32, 64, 128, or 256 channels, and include the HydroCel Geodesic Sensor Net; amplifiers for up to 256 channels; and Net Station software for acquisition, review, and analysis. MetaFile Format facilitates interoperation with third party analysis and signal processing routines. Systems can be easily upgraded for compatibility with

fMRI. EGI also offers an integrated source estimation and optical sensor localization system, experimental control software, integrated eye tracking systems, and polygraphic input boxes. Excellence in customer support is provided with all products. Stop by the EGI booth for a demo!

POOT⊔ 1101

Elsevier

1600 JFK Blvd, Suite 1800 • Philadelphia, PA 19103 USA

Phone: +1 215 239 3722 • Fax: +1 215 239 3494 • Email: K.Pollock@elsevier.com

www.elsevierhealth.com

Elsevier is a world-leading provider of information solutions that enhance the performance of science, health, and technology professionals, empowering them to make better decisions, deliver better care, and sometimes make ground-breaking discoveries that advance the boundaries of knowledge and human

progress. Elsevier provides over 33,000 book titles, including a number of iconic reference works, web-based, digital solutions and publishes nearly 2,200 journals, including The Lancet and Cell, a world-leading provider of information solutions for professional customers across industries.

Be sure to stop by the booth and see the new edition of Diffusion MRI, 2nd Edition From Quantitative Measurement to In vivo Neuroanatomy; authored by Johansen-Berg & Behrens, along with many other relevant titles to your professions.

воотн 309

EMMOTRAC - Max Planck Institute for Human Cognitive and Brain Sciences

Stephanstraße 1a • Leipzig, 04103 Germany

Phone: +49 341 9940 2425 • Email: info@emmotrac.com

www.emmotrac.com

Emmotrac is a startup project at the Max Planck Institute for Human Cognitive and Brain Sciences in Leipzig (Germany) funded by the German Ministry of Economics. We are refining a patented technology for optical head motion tracking and intend to found a company by the end of 2015 that offers a tracking system delivering position information for real-time head motion correction in MR. On

our booth, we present the current state of our development.

In an aging society, an increasing number of people will suffer from neurodegenerative diseases like Alzheimer's and Parkinson's that are diagnosed using MR. As these people have difficulties to stay still, the likelihood of bad imaging due to motion will increase. Therefore, we believe that an effective way of

motion correction compatible with all MR techniques will be inevitable in the future. With our product we want to offer a tool for robust and fast head motion tracking that can be integrated directly into an MR head coil. Position information is sent to the MR scanner to adjust the imaging volume in real-time and, thus, motion artifacts are prevented.

рости 510

Ergospect GmbH

Oppolzerstrasse 6 • Innsbruck, Tirol, 6020 Austria

Phone: +1 00 43 699 1602 0200 • Fax: +1 00 43 5128 4598 • Email: info@ergospect.com

www.ergospect.com

Ergospect is specialized in the development and production of "Diagnostic Pedals" for the examination of different muscle groups, the myocardium and the musculoskeletal system. The main diagnostic focus is on the evaluation of peripheral arterial disease besides supervision of training success in professional sports. By objective evaluation of blood flow, blood circulation and differential

diagnosis of orthopedic and neurological indications the muscle physiology and energy metabolism in the extremities can be assessed accurately. With advanced MRI techniques pathological alteration, which may be masked and therefore be underdiagnosed during rest, can be examined during stress or physical exercise.

The pedals are compatible with all MRI-systems (up to 7 Tesla) and consist of a basic platform to be combined with different modules.

On request, we can also develop and deliver individual solutions according to customer specifications.

воотн 931

European Society for Magnetic Resonance in Medicine and Biology (ESMRMB)

Neutorgasse 9 • Vienna, 1010 Austria

Phone: 0043 1 5351306 • Fax: 0043 1 5357041 • Email: office@esmrmb.org

www.esmrmb.org

Founded in 1984 as a platform for clinicians, physicists and basic scientists with an interest in the field of MR, ESMRMB has around 1,200 active members. In 1994, MAGMA was introduced as the official journal (which is included in the membership) and has become well-established since then with a remarkably high impact factor. ESMRMB runs several successful educational programmes: The School of MRI, which offers a variety of advanced clinical courses (11 courses in 2015),

and the Lectures on MR programme, which provides teaching courses for MR physicists and basic scientists (6 courses in 2015). The Hands-On MRI course programme, launched in 2009, is designed for radiographers and physicians with 50% lectures and 50% hands-on sessions on the scanner. The ESMRMB is furthermore proud to be holding its 32th Annual Scientific Meeting from October 1-3, 2015 in Edinburgh/UK offering several highlights of an equally balanced

programme forming the European Forum for MR research and clinical practice. An exciting congress programme has been composed including educational, scientific and poster sessions as well as great networking opportunities.

For further information please refer to our website www.esmrmb.org or contact us directly at the ESMRMB Office at office@esmrmb.org

воотн 311

Exprodo Software Ltd.

C21, Didcot Enterprise Centre • Hawksworth, Southmead Industrial Estate • Didcot, Oxforshire OX11 7PH UK

Phone: +44 1235 813458 • Fax: +44 870 622 0845 • Email: info@exprodo.com

www.exprodo.com

Exprodo Software produces Calpendo, an intelligent facility management and booking system designed to manage scheduling and projects for shared equipment within your facility. Originally designed for a busy MR laboratory at the University of Oxford, Calpendo is now utilized in universities and research facilities across Europe, North America and Asia.

Calpendo is recognized as a best-in class online scheduling calendar with

configurable rules to control who can book what, where and when. It has a fully-featured reporting system for producing usage, billing and auditing reports and, as an integrated system, allows for multifaceted activity bookings. Additionally, Calpendo has full automated and targeted email capabilities for activity or booking notifications, confirmations and cancellations.

Calpendo takes the hassle out of booking and scheduling resources. From under-

graduate student to administrator or research director, the bespoke user accessibility minimizes mistakes and stress and maximizes efficient use of your resources. Calpendo will save you time and money in such a way that you will never want to change your facility management and booking system.

To learn more about Calpendo as well as other Exprodo Software products, please visit us at stand 311 or visit www. exprodo.com.

воотн 604

ExtendMR LLC

808 Valencia Dr. • Milpitas CA 95035 USA

Phone: +1 408 832 0568 • Email: Ernest.Wong@extendmr.com

www.ExtendMR.com

Recently founded in 2014, ExtendMR is located at the heart of Silicon Valley in California, USA. We are committed to servicing Millipede coils and other preclinical RF coils for existing Agilent/Varian RF coils users. We also design and build custom-made RF coils for your special needs.

In 2014, ExtendMR pushed the Millipede technology front by successfully developing the Helmet coil optimized for rodent brain imaging. Several custommade housings were designed to match with different animal beds provided by customers. Excellent imaging performance was achieved with this advanced

technology and the cost to own it can be as low as \$5,000.

Please visit our booth 604 to learn more details.



EXHIBITOR 15+ Years

GE Healthcare

3200 N. Grandview Blvd. • Waukesha, WI 53188 Phone: +1 262 951 9320 • Email: cory.stahl@ge.com

www.gehealthcare.com

GE Healthcare provides transformational medical technologies and services that are shaping a new age of patient care. Our broad expertise in medical imaging and information technologies, medical diagnostics, patient monitoring

systems, drug discovery, biopharmaceutical manufacturing technologies, performance improvement and performance solutions services help our customers to deliver better care to more people around the world at a lower cost. In addition, we

partner with healthcare leaders, striving to leverage the global policy change necessary to implement a successful shift to sustainable healthcare systems.

воотн 710

GMW Associates

955 Industrial Road • San Carlos, CA 94070 USA

Phone: +1 650 802 8292 • Fax: +1 650 802 8298 • Email: lan@gmw.com

www.gmw.com

GMW will be showing Instrumentation for magnetic field and electric current measurement including: Bartington Three-Component Fluxgate Magnetic Field Sensors with frequency response from dc to 3kHz for high resolution mapping or active cancellation of fringe magnetic fields. Metrolab Three Component Fluxgate and Hall Teslameters with USB Interface with

Probes covering the field range from 10nT to 20T for mapping fringe and magnet fields for safety and equipment placement requirements. Metrolab NMR Teslameters and Probe Arrays for B0 magnet mapping and shimming. PEM Flux Probes for ac and pulse fields with single or differential coils and frequency response bands that can be specified between <1Hz to about 20MHz. DaniSense very low noise

Current Transducers for variable field magnet control, measurement of magnet charging currents and gradient amplifier test. Magnelab Current Transformers for ff and pule current measurement to over 500MHz. GMW Resistive and HTS-110 Superconducting Electromagnets and Coils for biological, materials and device research, development and testing.

воотн 1001

Guerbet LLC

120 West 7th Street, Suite 18 • Bloomington, IN 47404 USA

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www.guerbet.com

Guerbet LLC, the U.S. subsidiary of Guerbet headquartered in Paris, is responsible for the marketing, sales, and distribution of Dotarem® (gadoterate meglumine) Injection, indicated for intravenous use with MRI, in brain (intracranial), spine and associated tissues in

adult and pediatric patients (2 years of age and older); Lipiodol® (ethiodized oil) Injection, an iodinated, oil based contrast agent indicated for selective hepatic intra-arterial use for imaging tumors in adults with known hepatocellular carcinoma (HCC), lymphography in adult and

pediatric patients, and hysterosalpingography in adults; and HEXABRIX® (ioxaglate meglumine 39.3% and ioxaglate sodium 19.6%) Injection, an ionic, low-osmolar iodinated contrast agent, for diagnostic and interventional procedures.

воотн 1009

Heart Imaging Technologies, LLC

5003 Southpark Dr. Suite 140 • Durham, NC 27713 USA

Phone: +1 919 323 3001 • Fax: +1 866 457 3694 • Email: sales@heartit.com

www.heartit.com

Founded in 2000 and headquartered near North Carolina's Research Triangle Park, Heart Imaging Technologies (HeartIT) is a global leader in Cardiac MR medical image analysis and distribution. HeartIT was the first company to offer a FDA approved zero foot-print CMR medical image workstation which has become the precedent for other zero-footprint

products seeking FDA approval. HeartIT provides web-based medical image management technology and services to health care systems, large hospitals and private clinics as well as drug and device companies sponsoring multicenter clinical trials. HeartIT technology contains functionality which enables real time collaboration of medical images,

structured reporting, and extensive data mining for research. With built-in modules for sharing studies with referring physicians and cloud-based de-identification options, worldwide HeartIT solutions have provided secure web browser access to over one billion medical images. For more information visit our website at www.heartit.com.



A world of MR created around a world of collaboration.

Learn more at ISMRM booth 1023 or visit collaborate.mr.gehealthcare.com



воотн 602

HeartVista, Inc.

998 Hamilton Ave. • Menlo Park, CA 94025 USA

+1 650 336 6543

www.heartvista.com

HeartVista is dedicated to improving the capabilities of MRI. HeartVista's core technology provides an advanced MR operating system that is an accessory to most 1.5T and 3T GE MRI scanners. The operating system controls all aspects of the scan, including unique, custom pulse sequences, cutting-edge reconstruction, and interactive real-time scan control and visualization.

HeartVista's RTHawk Research helps research institutions extend the capabilities of their existing MRI systems. This flexible and extensible platform is comprised of an intuitive GUI-based application builder and simulator, delivering a unique level of control and simplicity for creating pulse sequences, reconstruction methods, and user interface controls. Resulting applications may support real-time feedback or control, and can be integrated with interventional devices or external hardware.

The HeartVista cardiac software package is a product intended to provide a comprehensive cardiovascular MR solution. It implements sophisticated imaging applications, a streamlined user interface, and integrated real-time analysis to support the evaluation of cardiovascular anatomy, function, and flow in a clinically feasible time with high spatial and temporal resolution. Advanced and real-time image acquisition and reconstruction techniques are especially designed to support the evaluation of challenging patients, such as those with arrhythmia or who cannot effectively hold their breath.

воотн 1030

High Precision Devices

Boulder, CO 80301 USA

Phone: +1 303 447 2558 • Fax: +1 303 447 2548 • Email: Emirowski@hpd-online.com

www.hpd-online.com

High Precision Devices (HPD) will be exhibiting its line of quantitative NIST traceable MRI phantoms for reproducible longitudinal and multisite studies. The Isotropic Diffusion Phantom, developed under a joint effort between NIST/RSNA QIBA/NCI, provides a standard for evaluating the apparent diffusion coeffi-

cient. The System Phantom, based on the joint effort of ISMRM and NIST, is the first NIST-traceable system phantom for evaluating geometric distortion, T1, T2, and proton density. The Breast Phantom is designed to fit into breast coils and incorporates both ADC and DCE breast tissue mimics. These phantoms are an exceptional tool for evaluating new MRI techniques. With over 20 years of experience in developing and manufacturing precision instrumentation, HPD can also meet your custom phantom and research instrumentation needs so you can focus on your research.



Hitachi Medical Systems America, Inc.

1959 Summit Commerce Park • Twinsburg, OH 44087 USA

Phone: +1 330 425 1313 • Fax: +1 330 405 8173 • Email: JohnstonM@hitachimed.com

www.hitachimed.com

Hitachi Medical Systems America, Inc. offers a broad range of diagnostic imaging equipment including MRI, CT and Ultrasound. Our innovations in diagnostic imaging provide technology that drives clinical solutions to deliver diagnostic confidence, improve workflow efficiency and provide a better patient

experience. In addition to exceptional equipment, Hitachi Medical is known for its comprehensive customer support programs to maximize the lifecycle value of equipment through responsive service maintenance, significant software upgrades and on-going applications support.

At Hitachi Medical, every technological innovation is born from our core sources of inspiration: maximum patient comfort and safety, uncompromised imaging performance, proven efficiency, and absolute ease of use.

воотн 508

Innovere Medical, Inc.

Toronto, ON Canada

Phone: +1 647 283 3579 • Email: Garry.Liu@innoveremedical.com

www.innoveremedical.com

Innovere Medical Inc. produces wireless peripheral devices that facilitate tasks performed in the Magnetic Resonance Imaging (MRI) suite. Our first product, the MRI-Voicelink, provides wireless voice communication via headsets to a team of clinicians to facilitate teamwork during complicated interventional procedures performed under MRI-guidance.



SPEED CLARITY

FASTER SCAN TIMES

RAPID-RADAR takes Hitachi's leadership in motion compensation to new levels. By combining RAPID parallel imaging with RADAR motion compensation you can now achieve clear images with faster scan times.







воотн 812

International Electric Company (IECO)

Sahaajankatu 48 • Helsinki, FI-00880 Finland

Phone: +358 09 759 4470 • Fax: +358 09 759 447 57 • Email: info@ieco.fi

www.ieco.fi

International Electric Co. (IECO), established in 1974, designs and manufactures precision power electronics, MRI gradient amplifiers, bipolar/unipolar magnet power supplies, and precision temperature controllers for MRI and other applications.

IECO introduced its first gradient amplifier in 1994. This revolutionary PWM amplifier enabled excellent image quality in open MRI systems. Simultaneously IECO also launched the first D-class magnet power supply delivering new efficiency levels

with 0,1ppm accuracy. IECO's expertise has also been utilized in the development of the industry's first High Temperature Superconductive (HTS) MRI magnets.

IECO gradient amplifiers and bipolar magnet power supplies have modular design so they can be flexibly matched to a wide range of coils. Compact amplifier units can be connected in series or in parallel in Master/Slave operation to gain output voltages up to 1100V and output currents over 2000A. Amplifiers are utilized in resistive, superconductive and

permanent magnet MRI systems, both in human and in research scanning systems.

IECO bipolar power supplies are the best choice when high precision and speed are of importance. They can be implemented in single or multichannel configurations and are ideal for e.g. pulsed magnet applications or ion beam guidance etc.

IECO has ISO 9001 and ISO 13485 certified quality system and is headquartered in Helsinki, Finland.

EXHIBITOR
15 Years

Invivo

3630 SW 47th Avenue • Gainesville, FL 32608 USA Phone: +1 877 468 4861 • Email: info@invivo.com

www.invivocorp.com

Invivo is proud to deliver innovative high performance RF coils and advanced clinical MRI solutions, including visualization, analysis, MRI targeting and reporting systems for breast, prostate, neuro, orthopedic, and fMRI applications. System solutions streamline MR image viewing, provide automatic analysis processing,

simplified review and interventional planning tools for rapid, repeatable results and improved diagnostic confidence.

Invivo is also the world leader in MRI wireless patient monitoring, providing accurate and high performing care

solutions for your MRI patients.

Technology leaders in the MRI now and for the future, Invivo brings innovation to you. For more information, visit www. invivocorp.com or call +1 877 INVIVO1

воотн 623

ISMRM Product Theater

2030 Addison Street, Suite 700, Berkeley, CA 94704 USA
Phone: +1 510 841 1899 • Fax: +1 510 841 2340 • Email: info@ismrm.org

www.ismrm.org/15/product_theater.htm.

The ISMRM's Product Theatre will allow you to learn about specific products and services presented by exhibitors during specific time periods. We recommend you personally visit each exhibitor to receive a ticketed invitation guaranteeing your attendance and seat. Otherwise entrance will be based on a first-come, first-served

basis with any seats remaining. Seating is limited. View the full schedule at: www.ismrm.org/15/product_theater.htm.

воотн 723

ISMRM Resource Center

Metro Toronto Convention Centre South Building • 255 Front Street W, Toronto, ON M5V 2W6, Canada

Phone: +1 416 585 8000

www.ismrm.org

The International Society for Magnetic Resonance in Medicine is a nonprofit professional association dedicated to promoting communication, research, development and application of magnetic resonance techniques in medicine and biology. The Society presents annual meetings and sponsors other major educational and scientific workshops. We are accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

воотн 1013

KinetiCor, Inc.

4348 Waialae Ave. #571 • Honolulu, HI 96816 USA Phone: +1 808 366 0333 • Email: Will.Alameida@kineticor.com

www.kineticor.com

KinetiCor is a medical imaging company dedicated to bringing razor sharp clarity to MR imaging. Our patented prospective motion correction optical imaging technology delivers unparalleled performance to fully optimize the power of MR imaging. One of the biggest challenges in MR imaging today is blur caused by

patient motion. Often those patients that need a scan the most are the ones who cannot keep still, due to trauma, a medical condition or non-compliance due to their youthful age. Many require sedation, or just cannot be scanned. KinetiCor's motion correction adjusts for patient motion prospectively in real-time,

enabling an MR scanner to adjust the image acquisition plane with the patent movement, ensuring that every MR scan is razor sharp. KinetiCor's prospective motion correction is available for research purposes to MR research centers worldwide

воотн 411

KOPP Development, Inc.

785 NE Dixie Hwy. • Jensen Beach, FL 34957 USA

Phone: +1 772 225 6932 • Fax: +1 772 225 6291 • Email: annasrb@koppdevelopment.com

www.koppdevelopment.com

Kopp Development Inc., the world leading manufacturer of ferromagnetic detectors for MRI Safety, is proud to announce the release of a new entryway system; FerrAlert™ HALO II PLUS. This detection system dramatically reduces alarm fatigue by not alarming on the MRI door and ferromagnetic objects exiting the MRI room. Alarm fatigue reduction is a top priority for ECRI and The Joint Commission.

In addition, FerrAlert™ HALO II PLUS will accept the forthcoming accessory from KDI, the Ferromagnetic Incident Log Manager (F.I.L.M.). This logging device will assist with Root Cause Analyses and facilitates The Joint Commission compliance.

Along with entryway detector we also offer a single pole prescreening device, FerrAlert™ SOLO The SOLO detector is designed for screening patients and personnel for very small ferromagnetic

objects and is usually installed in Zones II or III.

FerrAlert™ detectors are recognized to be the most accurate ferromagnetic detectors for MRI, due to their unique, patented technology to detect and precisely locate the offending ferrous objects. This timesaving feature makes them the preferred choice by hospitals and imaging centers worldwide.

воотн 408

LMT Medical Systems GmbH

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www.lmt-medicalsystems.com

LMT Medical Systems GmbH is based in Luebeck, Germany and is specialized in the development of MRI Accessories such as the MR Diagnostics Incubator Systems nomag® IC or miscellaneous MR-coils.

With the nomag® IC, MRT images of premature babies and newborns can be produced gently and free from complications. Radiologists, pediatricians and nurses are considerably relieved of their workload and costs are optimized.

Due to the high demand of miscellaneous MR-Coils for particular examinations and research, LMT is also specialized in developing different coils for MRI.

More information is available at www.lmt-medicalsystems.com

воотн 422

Medis Medical Imaging Systems, Inc.

9360 Falls of Neuse Rd. • Suite 103 • Raleigh, NC 27615 USA
Phone: +1 919 278 7890 • Fax: +1 919 847 8817 • Email: info@medis.nl

www.medis.nl

Since 1989 Medis is a leading provider of software for the quantification in cardio-vascular image processing. Our software solutions enable medical professionals to carry out time-efficient, cost-effective and high-quality image analysis. At this

year's ISMRM we will demonstrate our latest solutions for both invasive imaging (QAngio® XA 2D and 3D RE, Qlvus® and QAngio®OCT RE, with unique features like side branch ostium measurements in 3D OCT) and non-invasive imaging

(QMass®, QFlow®, and QAngio®CT RE with tissue characterization in 3D coronary arteries from CTA).

For 25 years already Medis offers you Quality in Quantification, so make sure to visit booth 422.

POOTU 528

Mediso Medical Imaging Systems & RS²D

Alsotorokvesz 14 • H-1022 Budapest, Hungary
Phone: +36 1 3993030 • Fax: +36 1 3993040 • Email: info@mediso.hu

www.mediso.com • www.rs2d.com

Mediso have been working in the field of nuclear and molecular medicine since 1990 with a profile of development, manufacturing, sales and servicing of multi-modality *in-vivo* imaging systems. The company offers complete solutions from hardware design to evaluation and quantification software, both for clinical patient care and high-level life science research. Mediso launched the world's first pre-clinical integrated PET/MRI and SPECT/MRI cameras as members of the nanoScan® high-end small animal imager family, consisting of SPECT, PET, CT and

MRI modalities.

Recently, Mediso extended its preclinical portfolio by 3T and 7T cryogen-free MRI systems integrated into the nanoScan platform, via exclusive strategic collaborations with SSI and RS²D. Simultaneously Mediso and University of Tübingen entered into collaboration to develop a whole-body preclinical PET-insert based on silicon photomultiplier sensor technology for high field MRI, enabling simultaneous PET/MR imaging.

Founded in 2003, RS2D is in every sense an innovative, young and dynamic compa-

ny. RS²D has used its extensive experience combined with partnerships and collaboration to manufacture complete, novel preclinical MRI systems together with a compact and modular NMR spectrometer.

RS²D also distributes NMR accessories and offers a wide range of services to the NMR community throughout Europe. These new systems are opening up the possibility of molecular structure determination at affordable prices.

оотн 512

Metrasens, Ltd.

8 Beauchamp Business Centre, Sparrowhawk Close • Malvern, Worcestershire, WR14 1GL UK
Phone: +44 0 1684 219000 • Email: Sales@metrasens.com

www.ferroguard.com

Only Ferroguard ferromagnetic detection solutions will provide you with confidence from added safety and best-in-class usability with no alarm fatigue.

Always mounted in Zone III and so fully compliant with ACR guidance, Ferroguard Assure is always ready to provide real visual early warning of risk items well in advance of the door, giving you adequate

time to react to prevent an accident. Its intelligent Smart AlarmTM makes it the only FMD with zero alarms when exiting the room and zero alarms from MRI door movement; that's with any door and without compromising detection of approaching risk items. Ferroguard Screener offers the highest sensitivity screening available, much faster and more

reliable than a hand wand and ideal for screening of subjects to prevent frustrating and time-wasting image artefacts. Metrasens always provides comprehensive pre-planning and professional installation by certified product specialists; and with Ferroguard Assure, CEU-accredited in-service training is a standard part of the package.

воотн 707

Mint Labs

Ronda Sant Pere 13, 3 1A • Barcelona 08010 Spain Phone: +34 633 817 514 • Email: Paulo@mint-labs.com

www.mint-labs.com

Mint Labs is a cloud-based advanced neuroimage analysis and visualization platform. Specialists can upload neuroimaging data, have it processed and have access to big datasets all in one place, within the browser, without the need to buy costly hardware or software. We have eliminated the need for scripts and

complicated research tools. With one click get your results and focus on their interpretation.

To meet the needs of each project and its specific requirements, our platform provides integrated support for multiple investigators and projects with the ability to share data with collaborators.

Out-of-the-box job and data management to support virtually unlimited storage and processing power. With Mint Labs, quickly scale to the cloud and increase your capacity to manage your current and future processes and workflows.

воотн 1022

Modus Medical Devices, Inc.

1570 North Routledge Park • London, ON N6H 5L6 Canada

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www.modusmed.com

Founded in 2000, Modus Medical Devices Inc. develops and manufactures costeffective and innovative quality assurance tools for advanced radiology and radiotherapy. From routine, motion and imaging QA phantoms to automated QA software, optical CT scanners and 3D dosimetry, Modus continues to evolve and innovate. With 3,000 QUASAR™ phantoms in clinical use in over 1,800 leading treatment centres worldwide, Modus products are built to provide you with confidence that every patient

is receiving the best possible treatment.

Modus has grown steadily based on a strong foundation of science, research, development and collaboration with medical physicists around the world. Driven by scientific roots, in-house expertise and collaborative relationships, Modus strives to remain at the forefront of the complex and ever-evolving field of medical radiation technology. Modus is proud to have been first to market in a number of significant areas, including: nondosimetric QA, daily on-board

imaging and cone beam optical CT scanning for 3D dosimetry. Modus also developed the first commercial programmable respiratory motion phantom and platform.

As a manufacturer, Modus ensures its products are built to the highest standards in accordance with stringent principles of process control and continuous improvement. This commitment to quality is further reflected in the company's strong after-sales customer service and technical support.

воотн 1028

MR Instruments, Inc.

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MR Instruments is an independent designer and manufacturer of advanced MRI RF coils with over ten years of RF coil design experience. The Company continues on the path of designing superior products that enhances the patient experience at the lowest possible cost to the customer.

In 2009 MR Instruments introduced the first clinically available 32-channel, 3.0T head coil. We strive for continual product improvement and have recently complet-

ed our 4th generation of this coil providing superior SNR compared to competing products. This advanced technology has made MR Instruments the leader in independent coil manufacturers for high channel count RF coil technology. We continue to improve on our 32-channel head coil with advanced to be introduced soon

MR Instruments continues to improve its product line by introducing the latest

in flexible coils with its DuoFLEX® Coil Suite and DuoFLEX® Interventional Suite. The DuoFLEX Coil Suite uses the latest in flexible coil technology and provides improved signal in an 8-channel phased array configuration that is designed to easily be used with multiple anatomies.

MR Instruments continues to expand through development programs with top research facilities and work with major OEMs.

воотн **52**3

MR Solutions LTD

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www.mrsolutions.com

MR SOLUTIONS (www.mrsolutions.com) leader in the development of innovative preclinical imaging solutions continues to provide the market with innovation.

Following its success, MR Solutions has introduced its second generation MRI magnet technology to its range of ground breaking 3T, 4.7T and 7T, cryogen free, preclinical scanners. Features of this new technology include variable field operation, higher intrinsic magnetic field homogeneity, larger fields of view (FOV) elliptical in shape to better fit the subject and automatic field ramping. This jump in technology has been made possible

by MR Solutions' proprietary technology for optimization of magnet performance.

MR SOLUTIONS' MRI range includes several bore size magnets allowing research on large species.

MR SOLUTIONS has introduced C2P a conversion kit that enables small animal imaging using only the magnetic field of a Clinical MRI system for Preclinical research. The system operates in complete independence of the clinical system hardware, software and electronics

As multi-modality is an important factor

for researchers, MR SOLUTIONS provide a complete portfolio of preclinical PET and SPECT modules allowing real-time (simultaneous) or sequential imaging with MRI.

The revolutionary development of its' cryogen free superconducting technology with negligible stray field make these systems extremely compact, light easy to install and with no special construction investment.

MR SOLUTIONS has 30 years of experience in MRI, application, technology hardware & software innovation.

BOOTH 600

MR:comp/MRI-Tec & NORAS MRI Products

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www.mrcomp.com

www.MRI-Tec.com is your provider for all products and services for the MRI environment. Benefit from our strength the competence of our strong partners.

MRI-Tec is distributing worldwide MR Safe and MR Conditional products like equipment, tools and accessories. Offering MR: comp's seminars in USA and Europe for several occupational groups concerning MR Safety and Compatibility as well as www.mrcomp.com consulting services for R&D and MRI safety testing for implants and other medical devices according to standardized test methods of ASTM, IEC, ISO.

Get also MagResource in the EU, the most complete and up-to-date database of MRI implant safety information in the world, www.MagResource.eu. www. MagResource.com provides a searchable online database of printable MRI safety information for medical implants.

Our database lists over 7500 implants & features daily updates. MagResource database has the most comprehensive and up-to-date MRI Implant Safety information in the world. MagResource is designed by an MRI tech for MRI techs.

воотн 431

MRC Systems GmbH

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www.mrc-systems.de

MRC Systems GmbH from Heidelberg, Germany offers MRI compatible video cameras and accessories since more than 10 years. Researchers and radiologists all over the world successfully use the video cameras in their daily routine and research work.

The cameras can be used inside the bore of MRI scanners or anywhere in the MR cabinet without any artifacts or interference. They have been tested in differ-

ent environments ranging from 0.23 to 9.4 T. The cameras can be used during imaging as well as functional MRI. Typical applications are monitoring of subjects or devices, eye-tracking, motion tracking, MRI diagnostics in pediatrics and room monitoring.

The different camera models are complemented by infrared and visible light sources as well as by different types of camera holders. MRC also introduces a

brand new series of digital in-bore highspeed and high-resolution cameras. All systems can be easily integrated into specific applications. The installation is without any difficulty.

MRC celebrates its 20th anniversary in 2015 and offers a broad range of medical and technical products in the fields of MRI, neurology, laser applications and many more. The company also develops customized and OEM solutions.

воотн 412

MRI.TOOLS GmbH

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www.mritools.de

MRI.TOOLS's main focus is the development, sales and services of innovative hardware and novel technology for magnetic resonance imaging (MRI). Our product portfolio encompasses enabling radiofrequency (RF) coils tailored for a broad range of applications from head to toe. We also offer devices for reliable cardiac gating of imaging plus accessories that will make your daily life more comfortable. MRI.TOOLS is also very proud to offer services such as electromagnetic

field simulations, testing and validation of medical devices for clinical research.

MRI.TOOLS GmbH is a competent partner that develops and delivers solutions for clinical and preclinical life science applications. The key mission of MRI.TOOLS GmbH is to help you achieve your research and clinical goals. The harder we work the easier your research and clinical work becomes.

From our portfolio: RF coils for clinical and

preclinical MRI — we provide solutions for your applications stretching through all field strength for human and animal imaging. We design RF coils that suit to your exact needs and specifications. EasyACT— triggering/gating device for medical imaging — that will transform your workflow for triggering and gating of MRI and other biomedical imaging techniques. MRI Accessories — useful tools as well as customer tuned accessories to speed up your research.

воотн 1110

NeoCoil

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www.neocoil.com

NeoCoil is the leader in RF design for MRI coils. Through innovation and precision, NeoCoil is focused on designing and manufacturing flexible coils of the highest quality for a variety of system vendors including GE Healthcare, Siemens, and Toshiba. The coils are optimized for ortho-

pedic, abdominal and pelvic applications. We also feature a "Webstore" on our corporate website for ordering Operator manuals, pads, straps and other accessory items.

Our sister company, NeoSoft, offers a semi-automated cardiac MRI analysis software program called suiteHEART™. It incorporates an intuitive, easy-to-use interface for reviewing and reporting multiple cardiac MRI cases from multiple vendor platforms.

воотн 501

Neoptix Canada LP

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www.neoptix.com

Neoptix Canada LP is an agile company a market leader that designs and manufactures fiber optic temperature sensors for researches laboratories, medical uses and Industrial applications.

Being completely dielectric, fiber optic sensors are immune against High magnetic field, electromagnetic fields and where conventional sensors such as Pt100, thermistors and thermocouples, cannot be used. Neoptix's sensors do not need to be calibrated ever and each of them comes with test certificate.

Upon request, Neoptix can modified and adapt the sensor to your special projects. All Neoptix's systems are aerospace

tested and certified to meet the highest standard of the industry. Our wide range of systems offering the option of a portable single channel up to 512 channels and include many built-in features: Ethernet, webserver, memories, relays, touch screen display and more.

воотн 409

Neuro Device Group Ltd.

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www.neurodevice.pl

The Neuro Device Group offers custom R&D solutions in the field of design and building prototypes of medical, research and wearable devices. We have been manufacturing our own devices and custom-made designs for our clients since 2004. We are especially experienced in MRI, research and medical diagnostics.

The aim of our R&D department is to meet the expectations of professional customers. We know that the tailor made projects require constant cooperation

with the customer and a deep understanding of his needs and realities. All our released projects provide high level of comfort for the user in addition to the highest quality and safety.

We created four devices working in MR environment. Tactile Stimulator helps in pre-procedure fMRI diagnosis for patients with brain tumors. Olfactometer, precisely synchronized with the rhythm of breathing, is the world's first device of its kind for the presentation of fragrance stimuli.

Touch screen monitor in the OEM version serves as an interface for devices operating in the MRI environment. In the client version it's a stimulus display and recorder for patients' responses obtained during the fMRI procedure.

Our newest device is HD Colour Video Camera which allows access inside the MR gentry, and sees clearly patients' facial reactions, therefore helping to control the research and patients' safety.

воотн 600

NORAS MRI Products & MR: comp/MRI-Tec

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www.noras.de/en/

NORAS MRI products GmbH has more than 20 years of experience in developing devices for MRI scanners.

Manufacturing products for MR guided imaging, NORAS is well known for its 4Ch breast coil and breast immobilization/biopsy devices, 8Ch head coil (and

head holder) for intra-operative neurosurgery as well as several other dedicated RF coils, like our 8Ch CPC multipurpose coil or 16Ch Variety flex coil for various extremity examinations. Also we recently entered the field of MR guided prostate imaging, biopsy and therapy by providing

our 16Ch Uni-Belt coil, our positioning device Uni-Lift and different intervention devices.

Our products are compatible with Siemens, GE and Philips systems. All products are made in Germany. NORAS FDA registration#: 3004929307

ВООТН 713

NordicNeuroLab

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With over a decade of experience, NordicNeuroLab provides products and solutions that define the field of functional MR imaging. From state-of-the-art post-processing and visualization software for BOLD, Diffusion/DTI and Perfusion imaging to fMRI hardware for audio and visual stimulation, eye tracking, and patient response collection, NordicNeuroLab products are used around the world by researchers and clinicians alike.

We understand the growing need for reliable and innovative tools in this emerging field. As a result, we closely collaborate with research and clinical teams from both academic and medical centers, MRI system manufacturers and third party vendors. Ultimately, we are dedicated to bringing the most advanced neuroimaging tools to market while making functional MRI programs easy to implement

NordicNeuroLab takes pride in providing excellent service and support for our customers. Whether you are working with our team directly or through local partners and distributors we are prepared to support you any way we can. We offer extensive warranty and service agreements, software maintenance solutions and professional installations and training.



Nova Medical, Inc.

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www.novamedical.com



Nova Medical, Inc. (Wilmington, MA, USA), a leader in high field RF coil engineering, provides a range of high performance coils for both medium and high field MR systems. Our standard

product line includes multi-channel whole brain arrays for 3T and 7T, volume transmit solutions for 7T, and parallel imaging arrays for field strengths from 3T to 7T. Please come by and see our thirty-two

channel whole-brain array solutions for 3T and 7T as well as our latest offering of an eight channel transmit, thirty-two channel receive system for brain imaging at 7T.

воотн 413

NUKEM Isotopes GmbH

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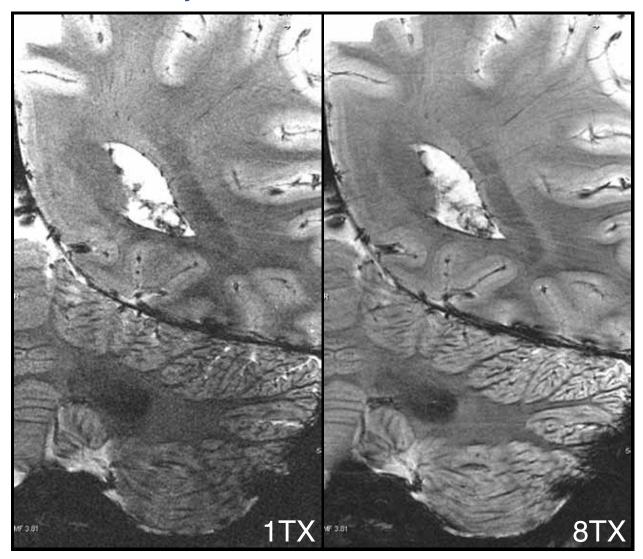
NUKEM Isotopes GmbH offers and markets Oxygen-17, Xenon-129 and Nitrogen-15 products for use in MRI

- Oxygen-17 in the form of gas is a paradigm shifting contrast medium for NMR imaging and provides a breakthrough of Magnetic Resonance Imaging using standard clinical MRI scanners.
- Oxygen-17 is available in the form of water with different enrichments up to 90%
- Xenon-129 is in the form of gas is one of the most promising non-invasive and non-radioactive gases for MRI-Imaging of the lung. Xe-129 is available as pure gas and gas mixture? 1% (or 3%) Xe-129, 10%, N2, 89% (or 87%) He.
- Nitrogen-15 in form of gas could have a potential as lung imaging agent especially in high field MRI scanners due to its similar behavior to air. It is available in form of gas, Ammonium salts and Nitrates.

Our products are manufactured under conditions in compliance with cGMP requirements of 21 Code of Federal Regulations: Parts 210 and 211.



Eight Channel Transmit with Thirty-Two Channel Receive Head Coil



on Siemens 7T Magnetom with PTX Step 2
T2* with full PTX based B1 correction on right image

Obtain the benefits of high SNR and contrast from 7T with the uniform excitation found at lower field strengths

This product is an Investigational Device. Federal Law restricts to Investigational Use.

ВООТН 113

ODU-USA

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ODU is one of the world's leading connector systems suppliers and employs about 1,650 people around the world. Aside from the company headquarters in Mühldorf am Inn, Germany, the ODU Group has also an international production and distribution network in Europe, North America and Asia. ODU combines all relevant areas of competence and key technologies relating to design and

development, machine tool and special machine construction, injection, stamping, turning, surface technology, assembly and cable assembly. The ODU group sells its products around the world and has an international distribution network. This includes seven sales companies in England, France, Sweden, Denmark, Italy, the USA and China, as well as numerous worldwide sales partners. Connections

from ODU ensure reliable transmission of power, signals, data and media in numerous demanding application areas: in future-oriented growth markets such as medical technology, military and security technology, and energy, as well as in established sectors such as industrial electronics, measurement and testing, and automotive technology.

воотн **92**3

Olea Medical

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Olea Medical®, a provider of advanced MR and CT imaging post-processing, designs and markets innovative medical imaging applications significantly improving diagnostic processes and treatment evaluation. Olea Sphere™ is a whole-body

multimodal 3D visualization and postprocessing package intended for picture archive, post-processing and communication. It standardizes across vendors both viewing and analysis capabilities of functional and dynamic MRI and CT imaging datasets and is fully compliant with the DICOM standard as well as multiple operating systems. Olea Sphere® runs on any standard off-the-shelf workstation or through thin deployment.

www.olea-medical.com

воотн 407

The Phantom Laboratory

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www.phantomlab.com

The Phantom Laboratory (www.phantomlab.com) manufactures a wide variety of medical imaging and radiation therapy phantoms. Working with Image Owl (www. imageowl.com) they offer the Magphan® Quantitative Imaging Phantom (used in the ADNI study) and image distortion measurement services. They feature phantoms for CT, MR, Digital, SPECT and ECT quality assurance, radiation therapy

Philips Healthcare

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and radiosurgery treatment evaluations, radiologic technologist training and custom phantoms for OEM applications.



EXHIBITOR 15+ Years

Royal Philips Electronics of the Netherlands is a diversified Health and Well-being company, focused on improving people's lives through meaningful innovations.

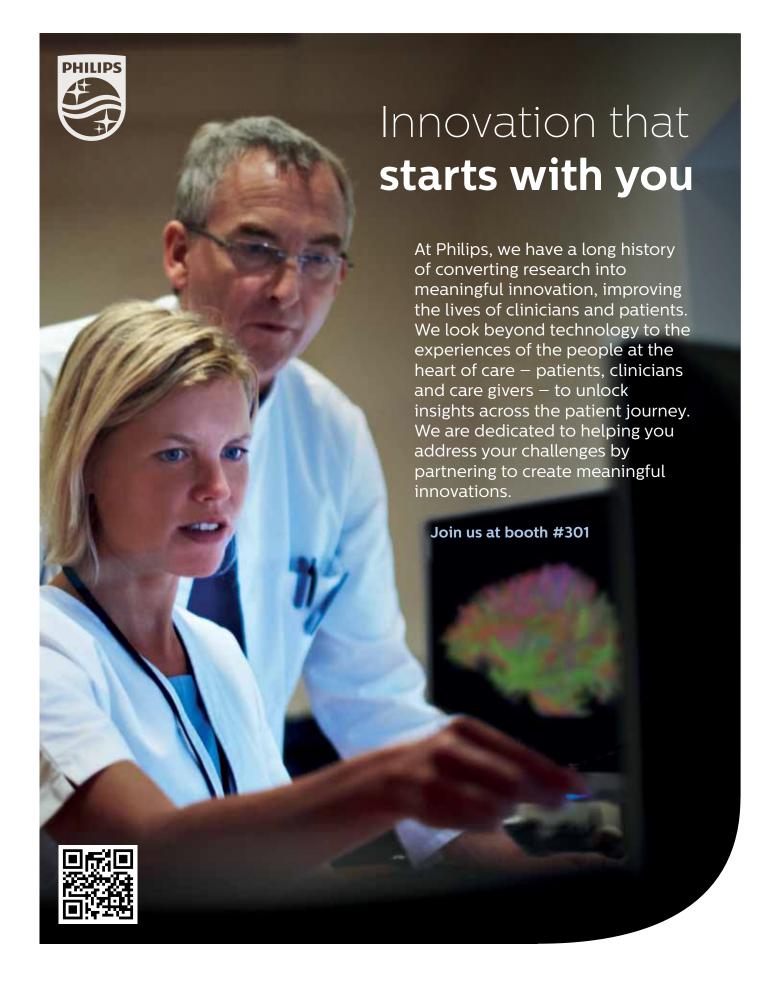
The future of healthcare is one of the most pressing global issues of our time. The Healthcare sector's vision is to improve the quality of clinicians' and patients' lives by simplifying the delivery of healthcare, improving clinical outcomes and reducing healthcare system costs around the

world. This includes helping to improve the diagnosis, treatment and management of many of today's deadly and debilitating diseases, such as cancer and

heart disease

By approaching healthcare from the perspective of a patient or a physician, we believe we can better understand clinical needs and create more innovative and meaningful solutions. By understanding a medical condition through the entire "cycle of care" — from prevention and

screening, through diagnosis and treatment, to recovery and, where needed, long-term management — we can create more effective solutions. By focusing on enabling care in the hospital, in the home, or wherever else the patient might be, we can improve the quality of life for patients and their care providers. Through our consistent focus on all of these aspects of care, we can ultimately create the best solutions.





BOOTH 424

Polarean, Inc.

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Polarean supplies products to enable hyperpolarized gas MRI research. Hyperpolarized gas MRI offers a fundamentally new, non-invasive means of imaging lung structure and function, which could be used for early diagnosis, more detailed characterization of regional function, and monitoring of progression and therapeutic response. Hyperpolarized

inert gases are used in conjunction with multi-nuclear MRI to enable 3-dimensional breath-hold imaging of pulmonary physiology and function. With its high speed and resolution, absence of ionizing radiation, and use of inhaled gases that are not metabolized, Polarean's hyperpolarized MRI technology is inherently non-invasive and suited for repeat use.

Polarean's product line includes polarizers to produce both xenon and helium gas, cartridge upgrades, as well as associated polarization measurement, calibration, training and service. Polarean's products are currently used by research institutions worldwide, and are sold for research and investigational applications only.

воотн 503

PulseTeq Limited

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PulseTeq offers a wide range of RF coils for clinical research and pre-clinical applications along with phantoms, test methods and support for your research programmes.

Coils for clinical research include custom multi-element 1H receive coils and a range of coil designs for multinuclear applications. The latter include coils for a range of nuclei: 31P, 13C, 23Na, 19F, 3He and 129Xe. These coils can be offered for a range of applications including the brain, calf, thigh, liver, and heart. Designs include multi-element coils and dual frequency coils, the latter including quadrature coil designs optimized for spectral decoupling.

Coils for pre-clinical applications cover both birdcage coils and surface coils for hydrogen imaging along with a range of multinuclear coils, both single and dual frequency configurations.

PulseTeq offers a complete service, not just our RF coils but also phantoms, calibration methods, QA methods, installation options and advice on getting the best from your product.

воотн 208

Pure Devices

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www.pure-devices.com

Pure Devices GmbH is a manufacturer of state-of-the-art portable and bench-top MRI scanners for education and research. Furthermore Pure Devices provides external gradient and RF amplifiers especially for applications in bench-top MRI.

The young company consists of a qualified team of engineers, electro-technicians and physicians. Team spirit, solidar-

ity, the satisfaction of defining new goals together and breaking new ground are not just practiced in the workplace. Our successful hardware products are proof for our advanced designs at the forefront of technology.

Since 2011, the headquarters is located in Würzburg in the heart of Europe. From here the research and development,

project planning, construction, set up, testing and finally sale takes place. All our products are designed and made in Germany.

Our company is known for our benchtop MRI scanners "portable Lab" for educational use and "research Lab" for the scientific laboratory setting.

воотн 511

RAPID Biomedical GmbH

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RAPID Biomedical is proud of being the first company to have brought customized RF coils into the market that are individually designed to the need of the scientific MR community. Through the high level RF expertise and attentive alliances with the MR system manufacturers we today can offer full compatibility for all of our coil solutions whether standard or customized.

In more than 15 years of company history RAPID Biomedical has delivered over 1200 different coil designs into more than 30 countries all over the world. We have thorough experience in designing and manufacturing coils from low field (from 0.2 T) to UHF human and animal scanners up to 21 T NMR systems. The range of non-proton solutions delivered by RAPID Biomedical includes 11 different nuclei (and counting). All coils are manufactured in Rimpar, Germany.

The current R&D work concentrates on PET/MR compatible coils, coil packages for hyperpolarized nuclei, human 7T coils, dual tuned coils and multi array coils for

parallel MRI both for human as well as for animal studies.

Our sister company RAPID MR International, LLC (www.rapidmri.com), situated in Columbus, Ohio, is contact partner for customers from the United States, Canada and South America.

We cordially invite you to visit our booth on the exhibition floor. Take your chance in our traditional quiz and see RAPID products and scientific results first hand.

воотн 30<mark>7</mark>

Remcom

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www.remcom.com

Remcom provides innovative EM simulation and wireless propagation tools and consulting services. XFdtd Release 7 (XF7), our full wave 3D EM solver, simplifies the analysis of complex EM problems and leads the market in FDTD-based modeling and simulation. The Bio-Pro version of XF7 provides accurate predictions of the interaction of electromagnetic fields with biological tissues and includes important bio-EM calculation capabilities such

Electromagnetic Simulation Software

as automatic saving of all steady state conduction currents, electric fields, and magnetic fields. Analysis options are available for device performance, such as tuning, and bio-interaction including SAR. Realistic, pose-able human body models are available in addition to CAD-based phantom models. Averaged materials FDTD calculations exploit XF7's GPU acceleration, dramatically speeding voxel averaging of heterogeneous human body models. XF7 Bio-Pro can

be used for many applications: imaging devices including MRI coil design and tuning, SAR and field analysis, implantable devices such as pacemakers and diagnostic equipment, field exposure from radiating sources such as cell phones and other antennas, human models and phantoms, and regulation/certification. Remcom offers affordable and creative solutions for any budget or level of need. Learn more at www.remcom.com or by calling +1 814 861 1299.



Resonance Technology, Inc.

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www.mrivideo.com

Resonance Technology, Inc. has been the recognized leader in cutting-edge MRI compatible audio-video systems. The company was founded in 1988 by Mokhtar Ziarati, an Electrical Engineer specializing in CT and MRI, with the goal of eliminating the claustrophobia and discomfort patients often experience during MRI procedures.

In addition to our full line of MRI compatible patient comfort devices, Resonance Technology, Inc. offers our second generation of the first and only truly stereoscopic, SXGA Virtual Reality Display for functional MRI on the market. With unmatched

clarity and versatility, VisuaStim SXGA is the perfect choice in visual stimulation displays for fMRI studies. Its compact, eyeglass-like design allows it to be used in all standard Headcoils. The crisp, dual 1280 x 1024 x 3 pixel resolution displays (display contrast ratio; 10,000:1) affords brilliant color and crystal-clear picture quality, free of color aberration or pixel dropout. Input from your PC allows real time 3D objects to be displayed to your subjects. The optional MREye eye tracking module adds even more versatility for your critical studies, allowing for a complete input/output device within the

bore of the magnet.

A standalone version of our eye tracking system is available for the PC platform, featuring great accuracy and easy set up at a low cost (about 1/3 the cost of any comparable systems). This is the only fMRI eye tracker on the market that includes a built-in camera and operates entirely inside the head coil. An optional reflective mirror is available for viewing any external visual paradigm presentation. We also have a full line of Audio and Video Systems for patient comfort applications including the new widescreen Cinema Vision.

воотн 1007

SA Instruments, Inc.

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SA Instruments designs, manufactures and sells physiological monitoring and gating systems and other support products for animal research. Multiparameter systems measure heart rates > 900 BPM and are compatible with MR, CT, PET, SPECT and Optical imaging environments. Parameters include ECG, temperature, respiration, blood pressure, oxygen saturation, end-tidal CO2 and auxiliary input channels. Waveform and trend data can be captured, stored and

displayed. Several advanced fiber optic sensors are available which are MR and CT-compatible. An ultra-miniature fiber optic pressure sensor provides real time pressure measurements in mice, rats and larger animals. The sensor can be used to measure pressure in the heart, ventricles of the brain, spinal canal, etc. It can also be used to make a minimally invasive IBP measurement with a needle stick into an artery. Also available is a ventilator with remote, miniature, pneumatic valves that

provides ventilation for animals as small as mice even in the MR environment. Ventilation rates up to 150 breathes/minute are supported. Systems are also available to accommodate monitoring and gating multiple animals in multiple imaging modalities simultaneously. A new water bed heater system allows animal temperature to be regulated even in tight imaging setups.

оотн 711

ScanMed LLC

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www.scanmed.com

ScanMed is the industry-leader in MRI coil Repair and Refurbishment, Contract Engineering, and Contract Manufacturing. Our innovative "Game-Changer" product line includes first-of-a-kind MRI coils such as the wearable diaper-like PROCURE Coil for prostate/pelvic imaging, wearable Kinematic Shoulder Coil, Orbit and Mandible Array, and Blanket Coil

- yes, a coil array housed in a blanket! ScanMed boasts the most sophisticated tools with the ability to rapid prototype and achieve "shortest time to production" in the industry using our various design software, 3D printers, injection molding, tool making, painting and most importantly our own 1.5T 16 channel MRI system for performance and diagnostic

testing. Whether you are a researcher seeking a one-of-a-kind MRI antenna or an OEM desiring fast, reliable and affordable contracting, we have the coil design and manufacturing services to meet your need on any MRI scanner.

IS09001 and IS013485 Certified.

воотн 506

Shelley Medical Imaging Technologies: A Division of Shelley Automation, Inc.

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www.simutec.com

A leader in MRI compatible DCE perfusion flow phantoms, respiratory motion controller/stages, dynamic heart motion phantoms, anatomically correct vascular models, QA flow phantoms, as well as, highly accurate programmable physiological flow pumps for quantitative blood flow and angiographic applications (MRA, DSA, CTA), Doppler

flow and Particle Imaging Velocimetry (PIV). Programmable pumps and flow phantoms can also be used for iMRI, and endovascular device testing, validation and training.

We make custom anatomical structures such as vasculatures, hearts, valves & organs.

NEW PRODUCTS:

- 2-axis & 3-axis MRI compatible motion stage
- PET/MRI/CT Respiratory Tumor Motion Phantom



YOU'VE ONLY JUST ARRIVED & ALREADY WE'RE THINKING OF YOUR NEXT TRIP

As the official airline network for the ISMRM 23rd Annual Meeting & Exhibition, we'd like to thank you for choosing the Star Alliance network and hope that all goes really well for you here today.

Whilst you concentrate on the day's events, we hope you'll consider us the next time you need to attend a conference.

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So the next time you want to concentrate all your energies on your conference, we hope you'll decide to leave the travel arrangements to us.



ISMRM GOLD CORPORATE MEMBER

Siemens Healthcare GmbH

Henkestaße 127, H CC 431 • Erlangen 91052 Germany Phone: +49 91 3184 2924 • Email: contact.healthcare@siemens.com

www.siemens.com/healthcare



Siemens Healthcare GmbH is one of the world's largest suppliers to the healthcare industry and a trendsetter in medical imaging, laboratory diagnostics, medical information technology and hearing aids. Siemens offers its customers products and solutions for the entire range of patient care from a single source—from prevention and early detection to diagnosis, and on to treatment and aftercare. By optimizing clinical workflows for the most

common diseases, Siemens also makes healthcare faster, better and more costeffective.

Managing rapid procedure growth, minimizing costs and improving satisfaction, while at the same time achieving clinical excellence are some of the central challenges affecting healthcare around the globe. Magnetic Resonance, a Business Unit of Siemens Healthcare,

turns these challenges into opportunities. Four unique technologies, Tim, Dot, Trendsetting Applications, and Life Design, offer our customers exceptional image quality, efficiency & speed, and patient friendliness, while at the same time offering investment protection. Equipped with these technologies and a very strong global collaboration network, we enable our customers to lead MRI.

воотн 531

Singapore Exhibition & Convention Bureau

Tourism Court, 1 Orchard Spring Lane • Singapore 247 729 Singapore Phone: +65 6831 3777 • Fax: +65 6734 7223 • Email: Dawn-Ng@stb.gov.sg

www.yoursingapore.com

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ogy draws on vibrant knowledge and wide networks to tailor success for you.

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воотн 212

Skope Magnetic Resonance Technologies LLC

Zschokkestrasse 18 • Zurich, ZH 8037 Switzerland
Phone: +41 446 3266 52 • Fax: +41 446 3211 93 • Email: contact@skope.ch

www.skope.ch

Skope Magnetic Resonance Technologies offers unique products for state-of-theart field management to MR engineers and MR scientists. With our cameras you would measure the encoding field dynamics immediately present in your MR system. This is a prerequisite for the successful implementation of your enhanced MR methods such as fast imaging, quantitative phase contrast imaging, high-field, and diffusion imaging.

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The Dynamic Field Camera for measuring, characterizing, and calibrating your MR system

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www.siemens.com/mri

Translate MRI research power into clinical care

The ability to expand your research capabilities can make all the difference in meeting your innovation imperative. When it comes to finding answers to the most challenging clinical questions, exploring uncharted territory is the key to enhancing patient outcomes.

At ISMRM 2015, we will unlock unprecedented power for your research. Power to help you translate your results into clinical care. Power to put you firmly at the forefront of MRI research, and gain a competitive edge.

BOOTH 1103

Sunnybrook Research Institute

Toronto, ON M4N 3M5 Canada Phone: +1 416 480 5765 • Fax: +1 416 480 5714

www.sunnybrook.ca/research/

Sunnybrook Research Institute (SRI) is a research and teaching hospital fully-affiliated with the University of Toronto. Comprising 500 000 square feet of research space, SRI is home to more than 295 scientists and clinician scientists, who work together with approximately 500 highly skilled personnel, and 500 postdoctoral fellows and other

trainees. Located within SRI is the Centre for Research in Image Guided Therapeutics, which includes state-of-the-art research-dedicated whole-body MRI systems from the three main manufacturers, as well as hyperpolarized carbon 13 apparatus and small animal MRI capability at ultrahigh field. SRI also acts as a major hub for multi-

ple large-scale capital research projects, multi-institutional research consortia, and commercialization with the creation of 14 start-up companies in the past 7 years. SRI researchers have made central contributions to the development of MRI technology and applications.

воотн 1106

SynchroPET

1490 William Floyd Parkway, Suite 101 • East Yaphank, NY 11967 USA

Phone: +1 631 209 7096 • Email: info@synchropet.com

www.synchropet.com

SynchroPET manufactures revolutionary PET Scanners (Positron Emission Tomography) which can be inserted into new or existing MRI devices, enabling simultaneous dual PET/MRI imaging capability in the pre-clinical imaging market. Our patented technology is new to the commercial market, but our

prototypes have been used at a number of research institutions with stellar results.

SynchroPET is proud to offer the Small Animal PET/MRI Insert commercially for the first time this year, along with the other unique pre-clinical PET devices in its product line, the RATCAP (a small animal awake neuronal PET Imaging device), and the MiniPET a standalone small animal PET System.

SynchroPET's patented PET/MRI technologies will unlock a whole new world of opportunities for research.



Tesla Engineering, Ltd.

Water Lane, Storrington • West Sussex RH20 3EA UK

Phone: +1 44 0 1903 74 3961 • Fax: +1 44 0 1903 74 5548 • Email: sales@tesla.co.uk

www.tesla.com

Tesla Engineering Ltd. was founded over 40 years ago to supply magnets for particle accelerators. Today, the Tesla group of companies has factories in the UK, the USA, and the Netherlands. The group has combined expertise in magnetics, composites, and precision manufacturing, and serves a wide range of well-known customers in national and international laborato-

ries (CERN, Fermilab, Brookhaven), and in several industries (MRI, Proton therapy, Radiotherapy, Semiconductor fabrication, Fusion).

In MRI, Tesla has been an independent supplier of gradients to many established OEM system manufacturers since 1985, and continues to design and manufacture state of the art gradients.

Tesla's skills in cryogenics, electromagnets, superconducting magnets, and composites are being applied to a new range of products for the MRI industry, including specialized high field magnets for dedicated clinical applications.



INDULGE AT SINGAPORE'S LIFESTYLE HAVENS AFTER HOURS

Singapore provides the perfect mix of work & play

In need of some downtime after business? Surrounding Singapore's financial centre is a variety of leisure havens perfect for kicking up those business shoes and letting your hair down after hours.

Regardless of preference, there is something for every executive in the city ranging from shopping to dining, to nightlife and entertainment once meetings are completed for the day.

GET YOUR SHOPPING FIX

Indulge in some retail therapy at the myriad malls along Singapore's famed shopping belt, Orchard Road. Look out for **ION Orchard** with its stable of flagship and concept stores ranging from luxury labels to high street brands, iconic time piece boutiques to classy art galleries. Of note is the mall's Jewellery Street in Basement 2 with some of the island's finest fashion jewellers.



Just a walk down from ION Orchard is another shopping sanctuary, Paragon Shopping Centre, home to Gucci's only duplex flagship in Singapore. Across the side street from it is Knightsbridge which houses Malmaison and the region's only Abercrombie & Fitch boutique which stocks the full range of the brand's aspirational casual luxury offerings. Do also check out retail hotspot The Shoppes at Marina Bay Sands®, noted for Louis Vuitton Island Maison, the fashion house's first floating flagship boutique in the world, and its collection of street wear labels such as new-to-market Zadig & Voltaire and multi-label style emporium The Society of Black Sheep.

If you're a tech junkie, **Funan DigitaLife Mall** is the place to head to for its gamut of electronic and photographic products conveniently under one roof.



FLAVOURFUL ESCAPES

Those seeking the pleasures of fine dining can savour the delights of Singapore's culinary establishments. Check out the Singapore outposts of Michelin-starred chefs which include **Joël Robuchon**, **Guy Savoy** and **CUT** (by Wolfgang Puck). Also savour the gastronomic creations of celebrated homegrown chefs at **Restaurant André**, **Iggy's** and **FiftyThree**.

But to really know Singapore, one has to sample the country's mouth-watering hawker fare such as Chicken Rice, Bak Kut Teh (pork rib soup) and Fried Oyster Omelette. Find these and more at the **Singapore Food Trail** and **Newton Food Centre.** A not-to-be-missed Singapore signature is the Chilli Crab, which can be enjoyed at **No Signboard Seafood** or **Palm Beach Seafood**.

THE NIGHT'S ALWAYS YOUNG

Chill out and let your hair down after a hard day's work at any of the nightspots in and around the city's financial centre.

On the bank of the Singapore River is Clarke Quay, whose cluster of clubs, bars and lounges are always vibrant and worth a check. A stone's throw away is the iconic **Zouk** at Jiak Kim Street, voted among the top 10 clubs in the world by DJ Mag.



For quiet unwinding, soak in the mind-soothing panoramic view of Singapore's city skyline at **LeVeL33** or **1-Altitude**, towering at 156 metres and 282 metres respectively. LeVeL33 is the world's highest urban brewery while 1-Altitude is the planet's highest alfresco bar – Perfect vantage points to take in all the city offers after sundown.

For more on how to mix business with leisure in Singapore, visit **www.yoursingapore.com**







Toshiba Medical Systems Corporation is a leading worldwide provider of medical diagnostic imaging systems and comprehensive medical solutions, such as CT, X-ray and vascular, ultrasound, nuclear

Toshiba Medical Systems, Inc.

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Phone: +1 800 421 1968 www.medical.toshiba.com

medicine and MRI systems, as well as information systems for medical institutions.

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воотн 929

True Phantom Solutions, Inc.

597 Ouellette Ave. • Windsor, ON N9A 4J3

Phone: +1 519 977 7400 • Fax: +1 519 977 5519 • Email: AWydra@truephantom.com

www.truephantom.com

True Phantom Solutions Inc. (TPS) reproduces the properties and structures of the human body using modern technology and synthetic tissue materials. The synthetic tissue structures, which are called phantoms, are critical for the development of innovative diagnostic imaging techniques, neurosurgical treatment planning, and training of medical students.

TPS has developed proprietary technology for the fabrication of unique bone phantom materials. These materials have highly realistic acoustical, physical, and mechanical properties which are practically

identical to those of real human bones. The novel technological process is being used for producing human-like phantoms for a wide range of purposes. While the phantoms excel in ultrasound imaging, they are also compatible with MRI and CT medical diagnostic techniques. The fabricated phantoms may vary from simple cubic shapes to highly customized human-like copies. Through the use of novel 3D printing technology, exact patient models can be fabricated based on individual orders.

TPS products are one-of-a-kind in the

market. We customize our phantoms to fit individual customer specifications for their unique biomedical needs.

Who do we help?

- Neurosurgeons who perform non-invasive neurosurgical HIFU procedures;
- Researchers/scientists who develop new medical devices;
- Medical and nursing students who require tools to practice their hands-on skills.

воотн 410

VPixx Technologies, Inc.

1497 Montarville • Saint Bruno, QC J3V 3T5 Canada

Phone: +1 514 328 7499 • Fax: +1 514 328 7499 • Email: sales@vpixx.com

www.vpixx.com

VPixx Technologies develops specialized visual displays and data acquisition systems for MRI, vision, and general neuroscience research. VPixx will demonstrate its PROPixx DLP projector, now running at refresh rates up to 1440Hz, and the VIEWPixx/3D LCD display with scanning backlight. Both displays include integrated digital, analog, and audio I/O with

microsecond synchronization to video. MRI installations can locate the PROPixx outside the magnet room, projecting through a waveguide with one of our long throw lenses. The PROPixx can also be placed within the SHIELDPixx Faraday cage, and located within the magnet room. A full line of MRI-safe fiberoptic response boxes and the SOUNDPixx

stereo audio stimulator will also be on display. For 3D and other dichoptic applications, we will be demonstrating our 400Hz polarizing filter which can be used in conjunction with MRI-safe passive 3D glasses.

воотн 410

Vango Photo Booth

69 Golfview Ave, Toronto, ON, M4E, Canada Phone: +1 888 468 9643 • Email: hello@vangophotobooth.com

www.vangophotobooth.com

Our Vango custom photo booth is built directly into our mobile van!

Join us in making and sharing ISMRM memories! See you there!

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Share your voice with us at Booth #601.



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TOSHIBA MEDICAL SYSTEMS CORPORATION

http://www.toshibamedicalsystems.com



Wiley

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воотн 111

World Molecular Imaging Society

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www.wmis.org

The World Molecular Imaging Society is an international scientific educational organization dedicated to the understanding of biology and medicine through multimodal in vivo imaging of cellular and molecular events involved in normal and pathologic processes and utilization of quantitative molecular imaging in patient care.

The World Molecular Imaging Society (WMIS) was established in 2011 by integrating the Academy of Molecular

Imaging and the Society for Molecular Imaging into a single streamlined society focused on advancing the field of molecular imaging (MI). Within a relatively short time, the WMIS has significantly expanded its global footprint in this field by building and expanding upon existing strengths and infrastructures of these two organizations.

WMIS holds an annual conference, the World Molecular Imaging Congress. The WMIC brings together thousands

of people from across the entire molecular imaging field. Filled with dozens of powerful sessions and hundreds of abstracts, this event is full of new ideas, innovations, scientific research, industry exhibitors, and educational sessions. This year the meeting will be in Honolulu, Hawaii from September 2 to 5, 2015.

For more information, please go to www.wmis.org.



ZMT Zurich MedTech AG

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www.zurichmedtech.com

ZMT Zurich Medtech AG, a leading SME located in Zurich Switzerland, is committed to empowering medical technology with cutting-edge computational simulation tools and dedicated test systems.

ZMT is a sister company of Schmid & Partner Engineering AG (SPEAG). Together, our close ties to two leading research institutions, the IT'IS Foundation and ETH Zurich, guarantee the most advanced products and services with an unmatched level of reliability.

Our product Sim4Life is the first commer-

cial multiphysics, multiscale simulation platform for computational BioMed and Life Sciences applications in complex anatomies. Sim4Life enables researchers, clinicians, and manufacturers to mimic real biomedical and physiological environments, optimize device design and safety, accelerate decisions, and achieve lower costs.

Our hardware solutions, such as the MITS and piX system, perform MR-compatibility assessment of radiofrequency (RF) interactions with medical implants. The piX

system enables RF characterization of medical implants, while the MITS implements testing under well-controlled RF conditions.

These systems can be automated with SPEAG's DASY NEO system and are compatible with SPEAG's novel Time-Domain Sensor (TDS) system, which provides both frequency- and time-domain information of RF signals during MRI scanning.

Visit us at booth 423 to learn more about our solutions first hand!

sım<mark>4</mark> Lıpe

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uMR 560 1.5T



PASSION FOR CHANGE

MRI world nowadays are facing challenges not only with ever evolving technologies, but with issues such as how to provide values to more population, especially billions from developing countries, and how can innovations in product design provide better user experiences, and etc.

UIH provides a full line of MRI system products and applications, including both 1.5T and 3.0T field strengths, and focuses on innovative technologies to provide more values to its customers. One example is how UIH MRI's open platform design encourages its users to innovate and collaborate through the internet.

66

UIH [Shanghai United Imaging Healthcare, Co. Ltd.] supplies advanced medical equipment and healthcare. IT solutions, including diagnostic imaging, therapy, services, trainings, and healthcare IT. UIH aims to fundamentally lower healthcare expenditures, improve healthcare quality, and expand the access to the advanced healthcare services.







BACK BY POPULAR DEMAND! POWER PITCHES

Back by popular demand! Power Pitches are a new session format! During each scheduled oral session, 15 of the best abstracts in each subject area will be given a two-minute "poster pitch" in our "Power Pitch Theatre," located in the Exhibition Hall. This will be followed by a one-hour poster presentation on big plasma screens in the Exhibition Hall. The goal is to maximize your opportunity to see great work and to have ample time to discuss the details with the authors.

10:45–12:45 Microstructure in CNS			
16:30–18:30 The Cardiovascular Power Hour			
POWER PITCHES • TUESDAY, 02 JUNE 2015			
10:00–12:00 ASL Methods: Neuro			
13:30–15:30 The Cutting Edge of Diffusion MRI			
16:00–18:00 Molecular Imaging & Sectroscopy			
POWER PITCHES • WEDNESDAY, 03 JUNE 2015			
10:00–12:00 Neuro Power Posters			
13:30–15:30 Advances in fMRI			
16:00–18:00 Cancer			
POWER PITCHES • THURSDAY, 04 JUNE 2015			

FOCUSED DISCUSSION • Constitution Hall 107

10:30–12:30 High Field Applications.....

13:30–15:30 Body.

FOCUSED DISCUSSION • WEDNESDAY, 03 JUNE 2015





0754 - 0768

0838 - 0852

TRADITIONAL POSTERS • EXHIBITION HALL

MONDAY, 01 JUNE 2015

CANCER, MUSCULOSKELETAL	
Cancer: Other, Original Research1075 – 1076	6
Breast Cancer Technical1077 – 109	1
Cancer: Preclinical Studies of	
Animal Models1092 – 110	8
Cancer: Clinical & Preclinical Studies on	
New Contrast Mechanisms1109 – 111	1
Tumor Therapy Response: Preclinical &	
Clinical (except Brain Tumor)1112 – 111	8
Tumor Perfusion & Permeability	
Applications1119 – 112	1
Cancer: Cells, Biopsy, Body Fluids1122 – 112	9
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Cancer: Prostate1147 – 116	9
Cancer: Other Cancer	3
MSK: General1174 – 125	0
(14:15–16:15)	
Young Investigator Poster Session	
(16:30–18:30)	
NEURO A	
Animal Model – Other1251 – 125	3
Animal Model – Other	
Novel Brain Methods1254 – 126	3
Novel Brain Methods1254 – 126 Fetal & Pediatric Neuroimaging:	3
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Novel Brain Methods	3 1 4 8 5
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Novel Brain Methods	3 1 4 8 5 4
Novel Brain Methods 1254 – 126 Fetal & Pediatric Neuroimaging: 1264 – 127 Clinical Studies 1264 – 127 Normal Developing Brain 1272 – 128 Autism & Neuro Development 1285 – 129 Normal Brain fMRI 1299 – 130 Normal Brain Spectroscopy 1306 – 131 Normal Aging Brain 1315 – 133	3 1 4 8 5 4 4
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Novel Brain Methods	3 1 4 8 5 4 4 5 6
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Novel Brain Methods 1254 – 126 Fetal & Pediatric Neuroimaging: 1264 – 127 Clinical Studies 1272 – 128 Normal Developing Brain 1285 – 129 Autism & Neuro Development 1299 – 130 Normal Brain fMRI 1299 – 130 Normal Brain Spectroscopy 1306 – 131 Normal Aging Brain 1315 – 133 Brain Resting State & Default Mode 1335 – 134 Mood Disorders & Psychosis 1346 – 135 Anxiety & PTSD 1357 – 136	3 1 4 8 5 4 4 5 6 8 2
Novel Brain Methods 1254 – 126 Fetal & Pediatric Neuroimaging: 1264 – 127 Clinical Studies 1272 – 128 Normal Developing Brain 1285 – 129 Autism & Neuro Development 1299 – 130 Normal Brain fMRI 1299 – 130 Normal Brain Spectroscopy 1306 – 131 Normal Aging Brain 1315 – 133 Brain Resting State & Default Mode 1335 – 134 Mood Disorders & Psychosis 1346 – 135 Anxiety & PTSD 1357 – 136 Epilepsy 1369 – 138	3 1 4 8 5 4 4 5 6 8 2 8
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TUESDAY, 02 JUNE 2015

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BODY, INTERVENTIONAL	
Lung/Mediastinum	1451 – 1484
Hyperpolarized Gas Imaging	1485 – 1507
Hepatobilliary	1508 – 1538
Renal, Pelvis & Fetal	1539 – 1586
Body DWI, Technical Development	
& Contrast	1587 – 1630
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Thermotherapy & Thermometry	1644 – 1655
MR-Guided Interventions	1656 – 1663
(13:30–15:30)	
RELAXATION, MAGNETIC SUSCEPTION	BILITY,
MAGNETIZATION TRANSFER	
Relaxometry	1664 – 1697
Quantitative Susceptibility Mapping	
(QSM)	1698 – 1739
Magnetization Transfer & CEST	1740 – 1774
(16:00–18:00)	
ENGINEERING, UHF, MR SAFETY	
RF Engineering	1775 – 1826
MR-PET, Gradients & Other Hardware .	
Safety in MRI	1848 – 1876

TRADITIONAL POSTERS • EXHIBITION HALL

WEDNESDAY, 03 JUNE 2015

(10:00–12:00)	
MOLECULAR IMAGING, SPECTROSC	OPY, fMRI
Molecular Imaging	1877 – 1939
MRS Acquisition Methods	1940 – 1960
MRS Processing & Quantification	1961 – 1978
MRS Animal Cells	
Non Proton MRI	1996 – 2001
MRS Normal & Ageing Brain	
MRS Neurological Diseases	
MRSI	
Pre-Clinical fMRI	
fMRI Methods	2041 – 2077
Functional Connectivity Method &	
Applications	2078 – 2105
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Imaging	2106 – 2139
(13:30–15:30)	
NEURO B, PERFUSION	
Stroke & Neurovascular: Animal Studies	:2140 – 2163
Stroke & Neurovascular: Human Studies	s2164 – 2195
Mechanisms of Neural Degeneration	
& Damage	2196 – 2214
Alzheimer's Disease	2215 – 2234
Brain Tumour Spectroscopy	2235 – 2246
Brain Tumour Multiparametic	
Assessment	2247 – 2257
Brain Tumour Diffusion	2258 – 2267
Brain Tumour Perfusion & DCE	2268 – 2278
Brain Tumours & fMRI	2279 – 2282
Novel Brain & Eye	2283 – 2288
Head & Neck & Beyond	2289 – 2321
Perfusion & Permeability	2322 – 2369
(16:00–18:00)	
PULSE SEQUENCES & RECONSTRUC	TION
Pulse Sequences: Spectroscopy	2370 – 2375
B1 Imaging	2376 – 2386
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Multi-Band MRI	2403 – 2412
Parallel Imaging	2413 – 2452
Encoding & Reconstruction	2453 – 2470
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Novel Computing Frameworks	2484 – 2489
Image Quality Assessment	2490 – 2498
Dictionary-Based Reconstruction	2499 – 2504
Imaging Near Metal	2505 – 2516
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Mapping Magnetism Using	
Magnetoencephalography	2531 – 2531
Multi-Scale Motion	2532 – 2546
Motion Correction - Head	2547 – 2564

Motion Correction - Body......2565 - 2579

THURSDAY, 04 JUNE 2015

(10:30–12:30)
CARDIOVASCULAR
NI I : I 0

New Insights & Innovations in	
Cardiovascular MRI	2580 – 2596
Cardiovascular MR –	
Tissue Characterization	2597 – 2650
Vessel Wall	2651 – 2661
CE & Non-CE MRA	2662 – 2682
Cardiac Perfusion & Function	2683 – 2713
Let It Flow	2714 – 2755

(13:30–15:30)

DIFFUSION

Diffusion: Simulation & Validation	2756 – 2766
Modeling & Microstructure	2767 – 2790
Diffusion Acquisition	2791 – 2804
Diffusion Processing & Analysis	2805 – 2830
Diffusion Kurtosis	2831 – 2837
Diffusion: Tractography	2838 – 2861
Diffusion Outside the Brain	2862 – 2878

MONDAY, 01 JUNE 2015

(10:45–12:45)	
DIFFUSION, PERFUSION	
Diffusion Sequences & Sampling	79 – 2902
Diffusion: Non Gaussian	03 – 2926
Diffusion Acquisition	27 – 2950
Arterial Spin Labelling29	51 – 2974
Diffusion & Tractography Analyses	
Diffussion Applications	99 – 3022
Diffusion: Modelling of Microstructure 30	23 – 3046
Perfusion & Permeability -	
Contrast Agent Methods30	47 – 3067
(14:15–16:15)	
ENGINEERING, UHF, MR SAFETY	
Hybrid Systems, Gradients &	
Monitoring30	68 – 3091
Non-Array RF Coils, Materials &	
Other Hardware 30	92 – 3115
RF Coil Arrays31	16 – 3139
UHF Applications: General	40 – 3163
RF Coil Arrays31	64 – 3187
UHF Acquisitions: Neuro31	88 – 3211
Safety in MRI	12 – 3235
(16:30–18:30)	
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MAGNETIZATION TRANSFER, PULSE SEQUE	NCES A
Relaxometry-Technical Developments 32	36 – 3259
Relaxometry Applications 32	60 – 3283
Electro-Magnetic Tissue Properties	
Mapping 32	84 – 3307
Quantitative Susceptibility Mapping	08 – 3331
CEST Technologies & Molecular Applications	
of CEST33	32 – 3355
Magnetization Transfer & CEST	56 – 3379
MR Fingerprinting & Quantitative Imaging 33	80 – 3403
Reconstruction & Processing Algorithms 34	04 – 3427

TUESDAY, 02 JUNE 2015

(10:00–12:00)
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Fetal & Pediatric Neuroimaging 3428 – 3451
Normal Developing Brain 3452 – 3475
Neuroanatomy & Tissue Characterization 3476 – 3499
Advanced Neuroanatomy & Morphometry 3500 – 3522
Addiction, Drug Exposure, Pain, Sleep 3523 – 3545
Psychosis
Neurovascular: Stroke
Neurovascular Disease
(13:30–15:30)
PULSE SEQUENCE B
Non-Cartesian, Multiband &
Parallel Imaging 3618 – 3641
Fat Water Separation
Motion Correction
Quantitative & Model-based Image
Reconstruction
Artifacts & Correction I
Image Processing & Segmentation 3738 – 3761
Artifacts & Correction II
Reconstruction of Dynamic Data 3786 – 3809
(16:00_18:00)
(16:00–18:00)
CANCER, fMRI
CANCER, fMRI Cancer: Preclinical Studies of
CANCER, fMRI Cancer: Preclinical Studies of Animal Models
CANCER, fMRI Cancer: Preclinical Studies of Animal Models
CANCER, fMRI Cancer: Preclinical Studies of Animal Models
CANCER, fMRI Cancer: Preclinical Studies of Animal Models
CANCER, fMRI Cancer: Preclinical Studies of Animal Models
CANCER, fMRI Cancer: Preclinical Studies of Animal Models
CANCER, fMRI Cancer: Preclinical Studies of 3810 – 3821 Cancer: Clinical & Preclinical Studies on 3822 – 3824 New Contrast Mechanisms 3825 – 3833 Cancer: Prostate Cancer 3834 – 3855 Tumor Therapy Responses: Preclinical & Clinical (except Brain Tumor) 3856 – 3870
CANCER, fMRI Cancer: Preclinical Studies of 3810 – 3821 Cancer: Clinical & Preclinical Studies on 3822 – 3824 New Contrast Mechanisms 3825 – 3833 Cancer: Prostate Cancer 3834 – 3855 Tumor Therapy Responses: Preclinical & Clinical (except Brain Tumor) 3856 – 3870 Cancer: Other, Original Research 3871 – 3871
CANCER, fMRI Cancer: Preclinical Studies of Animal Models
CANCER, fMRI Cancer: Preclinical Studies of Animal Models
CANCER, fMRI Cancer: Preclinical Studies of 3810 – 3821 Cancer: Clinical & Preclinical Studies on 3822 – 3824 New Contrast Mechanisms 3825 – 3833 Cancer: Prostate Cancer 3834 – 3855 Tumor Therapy Responses: Preclinical & Clinical (except Brain Tumor) 3856 – 3870 Cancer: Other, Original Research 3871 – 3871 Tumor Perfusion & Permeability Applications 3872 – 3876 Cancer: Other Cancers 3877 – 3878 Breast Cancer Clinical 3879 – 3893
CANCER, fMRI Cancer: Preclinical Studies of 3810 – 3821 Cancer: Clinical & Preclinical Studies on 3822 – 3824 New Contrast Mechanisms 3825 – 3833 Cancer: Technical 3834 – 3855 Tumor Therapy Responses: Preclinical & Clinical (except Brain Tumor) 3856 – 3870 Cancer: Other, Original Research 3871 – 3871 Tumor Perfusion & Permeability Applications 3872 – 3876 Cancer: Other Cancers 3877 – 3878 Breast Cancer Clinical 3879 – 3893 Cancer: Others 3894 – 3898
CANCER, fMRI Cancer: Preclinical Studies of 3810 – 3821 Cancer: Clinical & Preclinical Studies on 3822 – 3824 New Contrast Mechanisms 3825 – 3833 Cancer: Prostate Cancer 3834 – 3855 Tumor Therapy Responses: Preclinical & 2856 – 3870 Cancer: Other, Original Research 3871 – 3871 Tumor Perfusion & Permeability Applications 3872 – 3876 Cancer: Other Cancers 3877 – 3878 Breast Cancer Clinical 3879 – 3893 Cancer: Others 3894 – 3898 Preclinical fMRI 3899 – 3910
CANCER, fMRI Cancer: Preclinical Studies of 3810 – 3821 Cancer: Clinical & Preclinical Studies on 3822 – 3824 New Contrast Mechanisms 3825 – 3833 Cancer: Prostate Cancer 3834 – 3855 Tumor Therapy Responses: Preclinical & Clinical (except Brain Tumor) 3856 – 3870 Cancer: Other, Original Research 3871 – 3871 Tumor Perfusion & Permeability Applications 3872 – 3876 Cancer: Other Cancers 3877 – 3878 Breast Cancer Clinical 3879 – 3893 Cancer: Others 3894 – 3898 Preclinical fMRI 3899 – 3910 fMRI Methods 3911 – 3930
CANCER, fMRI Cancer: Preclinical Studies of Animal Models Salue - 3821 Cancer: Clinical & Preclinical Studies on New Contrast Mechanisms 3822 - 3824 Breast Cancer: Technical 3825 - 3833 Cancer: Prostate Cancer 3834 - 3855 Tumor Therapy Responses: Preclinical & Clinical (except Brain Tumor) 3856 - 3870 Cancer: Other, Original Research 3871 - 3871 Tumor Perfusion & Permeability Applications 3872 - 3878 Breast Cancer Clinical 3879 - 3878 Breast Cancer Clinical 3879 - 3893 Cancer: Others 3894 - 3898 Preclinical fMRI 3899 - 3910 fMRI Methods 3911 - 3930 fMRI: Bold Physiology & Multimodal
CANCER, fMRI Cancer: Preclinical Studies of 3810 – 3821 Cancer: Clinical & Preclinical Studies on 3822 – 3824 New Contrast Mechanisms 3825 – 3833 Cancer: Prostate Cancer 3834 – 3855 Tumor Therapy Responses: Preclinical & Clinical (except Brain Tumor) 3856 – 3870 Cancer: Other, Original Research 3871 – 3871 Tumor Perfusion & Permeability Applications 3872 – 3876 Cancer: Other Cancers 3877 – 3878 Breast Cancer Clinical 3879 – 3893 Cancer: Others 3894 – 3898 Preclinical fMRI 3899 – 3910 fMRI Methods 3911 – 3930

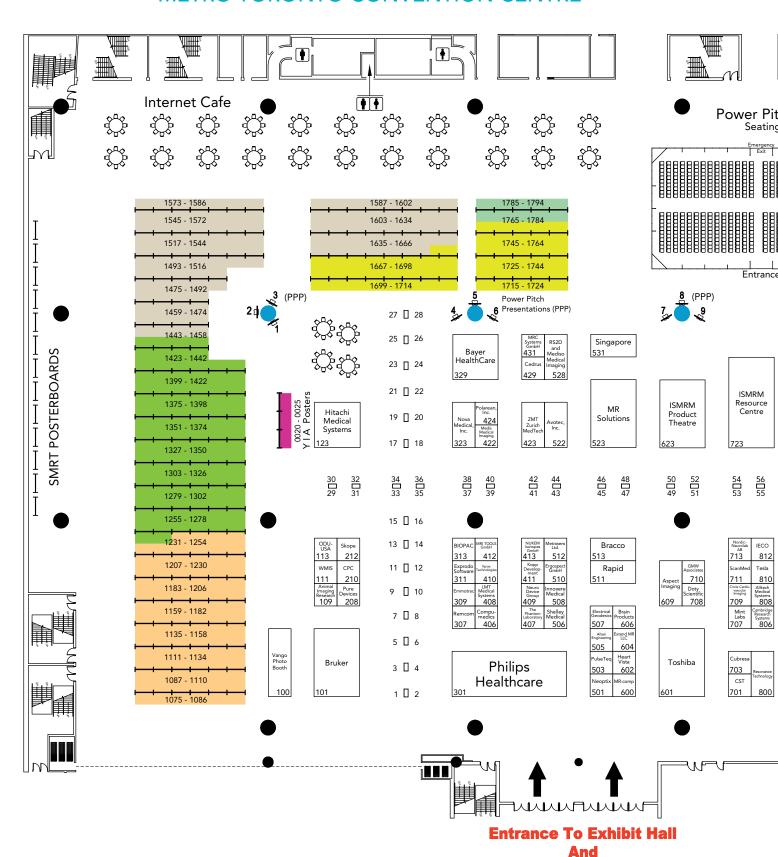
WEDNESDAY, 03 JUNE 2015

(10:00-12:00)**BODY, INTERVENTIONAL** Lung/Mediastinum/Hyperpolarized Gas Body DWI, Technical Development & Gastrointestinal MRI, Diabetes, Nutrition, Metabolism, Hepatobiliary 4113 – 4136 (13:30-15:30)MUSCULOSKELETAL Cartilage Imaging – Technical Developments 4161 – 4184 Translational MR Imaging of Musculoskeletal (15:30-16:00)**NEURO B** Mechanisms of Neural Degeneration & Mechanisms of Neural Degeneration & Brain Tumour Advanced Methods 4375 – 4398

THURSDAY, 04 JUNE 2015

(10:30–12:30)	
CARDIOVASCULAR	
Myocardial Tissue Differentiation	. 4447 – 4470
Cardiac Perfusion & Function	. 4471 – 4494
CE & Non-CE NRA	. 4495 – 4518
Vessel Wall & Cardiovascular Image	
Processing	. 4519 – 4542
Let It Flow	. 4543 – 4566
New Insights & Innovations in	
Cardiovascular MRI	. 4567 – 4590
(13:30–15:30)	
MOLECULAR IMAGING, SPECTROSCOPY	
Hyperpolarized MR	. 4459 – 4612
MRS-Animal Models & Non-Proton MRI	. 4613 – 4636
Human Brain MRS	. 4637 – 4660
Molecular Imaging	. 4661 – 4682
SV MRS Acquisition Methods	. 4683 – 4706
MRS Data Processing Quantitation of MRSI	

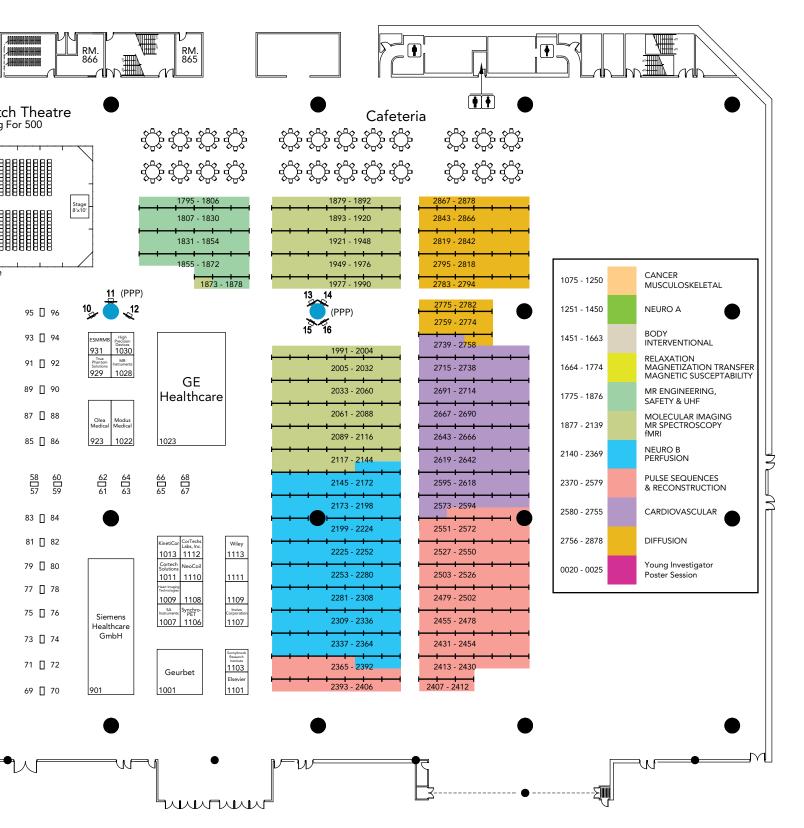
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Poster Hall

EXHIBITION, TRADITIONAL & ELECTRONIC POSTER HALL

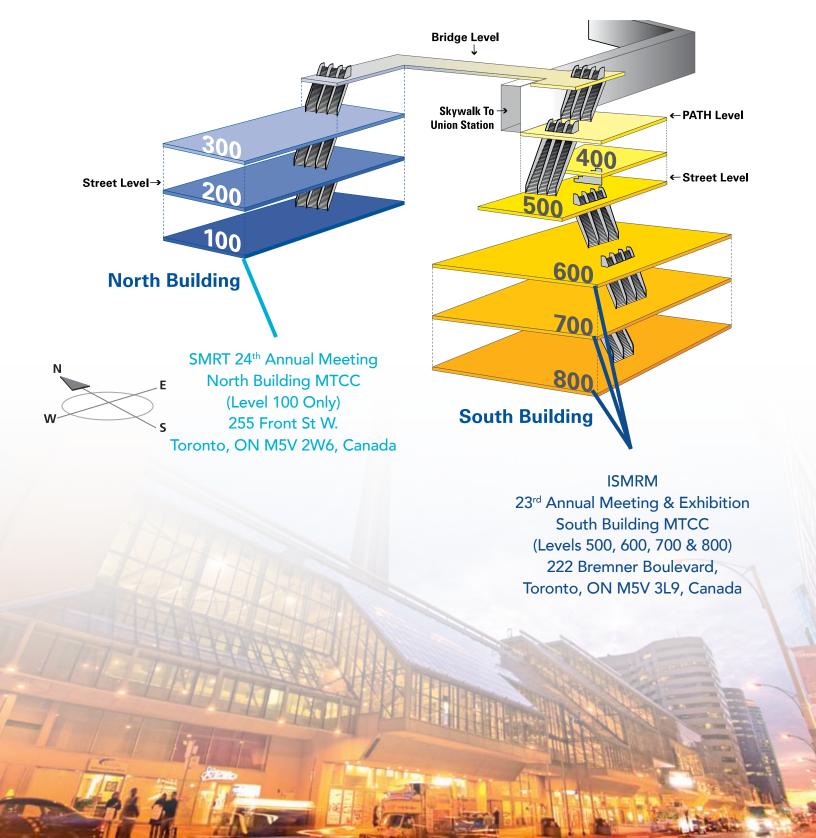
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- COMPLIMENTARY REGISTRATION for one to the ISMRM 24th Annual Meeting & Exhibition, 07–13 May 2016

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EXHIBITOR INFORMATION & BOOTH NUMBER (NUMERICAL BY BOOTH)

100	100Vango Photo Booth	600	600MR: comp/MRI-Tec
	101Bruker		600NORAS MRI Products
	109Animal Imaging Research		601Toshiba Medical Systems, Inc.
	111World Molecular Imaging Society		602HeartVista, Inc.
	113ODU - USA		604ExtendMR LLC
	123Hitachi Medical Systems America, Inc.		606Brain Products GmbH
200	208Pure Devices GmbH		609Aspect Imaging
	210Communication Power Corporation		623ISMRM Product Theater
	212Skope Magnetic Resonance Technologies LLC	700	701CST – Computer Simulation Technology
300	301Philips Healthcare		703Cubresa
	307Remcom		707 Mint Labs
	309Emmotrac		708Doty Scientific, Inc.
	311Exprodo Software Ltd.		709Circle Cardiovascular Imaging
	313BIOPAC Systems, Inc.		710GMW Associates
	323Nova Medical, Inc.		711ScanMed LLC
	329Bayer HealthCare		713NordicNeuroLab
400	406Compumedics, Ltd.		723ISMRM Resource Center
	407The Phantom Laboratory	800	800Resonance Technology, Inc.
	408LMT Medical Systems GmbH		806Cambridge Research Systems, Ltd.
	409Neuro Device Group Ltd.		808Alltech Medical Systems America
	410VPixx Technologies, Inc.		810Tesla Engineering Ltd.
	411KOPP Development Inc.		812International Electric Company
	412MRI.TOOLS GmbH	900	901Siemens Healthcare GmbH
	413NUKEM Isotopes GmbH		923Olea Medical
	422Medis Medical Imaging Systems, Inc.		929True Phantom Solutions, Inc.
	423ZMT Zurich MedTech AG		931ESMRMB
	424Polarean, Inc.	1000	1001Guerbet LLC
	429Cedrus Corporation		1007SA Instruments, Inc.
	431MRC Systems GmbH		1009Heart Imaging Technologies LLC
500	501Neoptix Canada LP		1011Cortech Solutions, Inc.
	503PulseTeq Limited		1013KinetiCor, Inc.
	505Altair Engineering, Inc.		1022Modus Medical Devices, Inc.
	506Shelley Medical Imaging Technologies		1023GE Healthcare
	507Electrical Geodesics, Inc.		1028MR Instruments, Inc.
	508Innovere Medical, Inc.		1030High Precision Devices
	510Ergospect GmbH		1101Elsevier
	511RAPID Biomedical GmbH		1103Sunnybrook Research Institute
	512Metrasens Ltd.		1106SynchroPET
	513Bracco Diagnostics		1107Invivo
	522Avotec, Inc.		1110NeoCoil
	523MR Solutions LTD		1112CorTechs Labs, Inc.
	528Mediso Medical Imaging Systems		1113Wiley
	528RS²D		

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EXHIBITOR INFORMATION & BOOTH NUMBER (ALPHABETICAL)

Α	Alltech Medical Systems America	808	M	Metrasens Ltd	512
	Altair Engineering, Inc			Mint Labs	707
	Animal Imaging Research	109		Modus Medical Devices, Inc	1022
	Aspect Imaging			MR Instruments, Inc	1028
	Avotec, Inc	522		MR Solutions LTD	523
В	Bayer HealthCare	329		MR:comp/MRI-Tec	600
	BIOPAC Systems, Inc			MRC Systems GmbH	431
	Bracco Diagnostics	513		MRI.TOOLS GmbH	412
	Brain Products GmbH	606	Ν	NeoCoil	1110
	Bruker	101		Neoptix Canada LP	501
С	Cambridge Research Systems, Ltd	806		Neuro Device Group Ltd	409
	Cedrus Corporation			NORAS MRI Products	
	Circle Cardiovascular Imaging			NordicNeuroLab	713
	Communication Power Corporation			Nova Medical, Inc	323
	Compumedics, Ltd			NUKEM Isotopes GmbH	413
	Cortech Solutions, Inc.		0	ODU – USA	
	CorTechs Labs, Inc.			Olea Medical	923
	CST – Computer Simulation Technology		Р	The Phantom Laboratory	407
	Cubresa			Philips Healthcare	
D	Doty Scientific, Inc			Polarean, Inc	
	Electrical Geodesics, Inc.			PulseTeq Limited	503
Е	Elsevier			Pure Devices GmbH	
	Emmotrac	309	R	RAPID Biomedical GmbH	511
	Ergospect GmbH	510		Remcom	
	ESMRMB			Resonance Technology, Inc	800
	Exprodo Software Ltd			RS ² D	
	ExtendMR LLC		S	SA Instruments, Inc	1007
G	GE Healthcare			ScanMed LLC	
J	GMW Associates			Shelley Medical Imaging Technologies	
	Guerbet I.C			Siemens Healthcare GmbH	
Н	Heart Imaging Technologies LLC			Singapore Exhibition & Convention Bureau	
	HeartVista, Inc			Skope Magnetic Resonance Technologies LLC .	
	High Precision Devices			Sunnybrook Research Institute	
	Hitachi Medical Systems America, Inc			SynchroPET	
	Innovere Medical, Inc.		Т	Tesla Engineering Ltd	
	International Electric Company			Toshiba Medical Systems, Inc	
	Invivo			True Phantom Solutions, Inc.	
	ISMRM Product Theater		V	VPixx Technologies, Inc	
	ISMRM Resource Center		V	Vango Photo Booth	
K	KinetiCor, Inc.		W	Wiley	
-IV	KOPP Development Inc.		Z	World Molecular Imaging Society	
	LMT Medical Systems GmbH		- Z	ZMT Zurich MedTech AG	
	Medis Medical Imaging Systems, Inc			Z Zaridi Madidali / G	120
	Mediso Medical Imaging Systems, Inc				
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