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AND

ISMRT

A SECTION OF THE ISMRM

ONE
COMMUNITY
IMPROVING LIFE THROUGH
MAGNETIC RESONANCE

ISMRRM & ISMRT ANNUAL MEETING & EXHIBITION

TORONTO
CANADA

03-08 JUNE 2023



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Now in our 12th year globally, United Imaging brings bold change to the industry with a mission of Equal Healthcare for All™, reflecting our commitment to ensure healthcare providers of any size in any community can invest in modern digital medical imaging equipment for their patients.

This year at ISMRM, in addition to the uMR Jupiter, we will present our uAI*FI* Technology Platform, translational medical research platform, and high-performance 3T MR.

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Scott Reeder, M.D., Ph.D.
2022-2023 ISMRM President

Welcome to Toronto!

Dear Colleagues and Friends,

It is with great pleasure that I welcome you to the 2023 ISMRM & ISMRT Annual Meeting & Exhibition.

I am excited that the ISMRM returns to the Toronto Convention Center, a modern venue located in the cultural heart of Canada. Did you know that this is the fourth time that the annual meeting has been held here? And for those who attended the 2003 meeting, you will recall the disruptions that occurred with the first SARS pandemic. Working closely with the City of Toronto, we held a successful meeting in July that year and hosted two highly successful meetings in 2008 and 2015. I am confident that the 2023 meeting will be the best Annual Meeting yet!

I am also happy to share that based on member feedback on the fall survey, the ISMRM will provide streamed access to all scientific, educational, and plenary sessions. I am also thrilled that through careful budgeting and fiscal planning by the ISMRM Central Office, registration fees have been reduced for full members by \$100. In combination with a reduction in membership fees of \$50, we are bringing more value to members than ever before.

An outstanding program awaits you in Toronto, many thanks to countless hours of effort by Nivedita (Niv) Agarwal (Program Chair) and Brian Hargreaves (Program Vice Chair), the Annual Meeting Program Committee, and the entire ISMRM Central Office staff, led by our Executive Director, Roberta Kravitz. The passion and hard work by these dedicated individuals over these last three years to organize this meeting is nothing short of awe-inspiring. Under Niv's leadership, the AMPC has prepared an outstanding program rich in science, education, and exciting visionary plenary lectures.

A major highlight of the annual meeting will be its keynote speakers. This year, I am pleased to introduce ISMRM Gold Medalist Clare Tempany, M.D., who will give the Mansfield Lecture on Sunday, June 4th, with her lecture entitled "Beyond Diagnostics: MR Guides the Way"; ISMRM Gold Medalist Zaver Bhujwalla, Ph.D., who gives the Lauterbur Lecture on Thursday, June 8th, entitled "To Image & Imagine: A Molecular Imaging Journey Through the Cancer Universe"; and Ji Eun Park, M.D., Ph.D., who will deliver this year's NIBIB New Horizons Lecture entitled "Brain Tumor Imaging & AI: A Clinical Roadmap" on Tuesday, June 6th. You won't want to miss hearing from these visionary leaders of our field.

It is also with great pleasure that I introduce this year's Ernst Lecture, which will be given by our very own Richard W. Ehman, M.D.—ISMRM Gold Medalist, Past President, and visionary

physician-scientist well known for major contributions in MR angiography, MR elastography, and many more revolutionary technologies that we all take for granted. A native of Canada—and President of the ISMRM when the Annual Meeting was first held in Toronto in 2003—Dr. Ehman will share his experiences and vision for the future with his lecture entitled "Celebrating the Convergence Science of the ISMRM" on Wednesday, June 7th.

I'd also like to draw to your attention to a special session on "Standardized Measures & Benchmarks," led by another ISMRM Past President, Jim Pipe. As you may know, Dr. Pipe has led a blue-ribbon ad hoc committee to explore the feasibility of a new ISMRM committee aimed at supporting reproducible research and improving scientific communication through standardized terminology, methodology, and benchmarks. Be sure to come to the Standards and Benchmarks session held on the afternoon of June 7th for an introduction and panel discussion exploring this new initiative. I would invite you to get involved and think of ways that you can contribute to this important effort to further our scientific and clinical missions.

Finally, I would like to welcome a group of special guests to the Annual Meeting this year. As Derek Jones and I mentioned in our recent blogs, increasing global engagement of the ISMRM to all regions of the world is a major strategic goal of the Society. With the recent formation of the African Chapter of the ISMRM and through support of the Bill and Melinda Gates Foundation (BMGF), we are thrilled to welcome 100 guests including a diverse group of MR scientists, clinicians, and radiographers from across Africa who would not normally get the chance to attend our Annual Meeting. Please be sure to welcome our guests and share with them what makes the ISMRM such a special organization: its members.

As we emerge from three challenging years of global pandemic and societal disruption, geopolitical conflict, and continuing economic challenges, I can't help but feel a strong sense of optimism and anticipation to reconvene this June. I look forward to exchanging ideas, rekindling old friendships, making new friends, and sharing our collective passion for magnetic resonance, whether it's engineering, fundamental science, or furthering the care of our patients. What you do as members of our great Society is important, and I can't think of a better way than to come together in a beautiful convention center in a beautiful city, to move the ISMRM forward, together.

Enjoy!

Scott B. Reeder
2022-2023 ISMRM President

Thank You to our Corporate Members

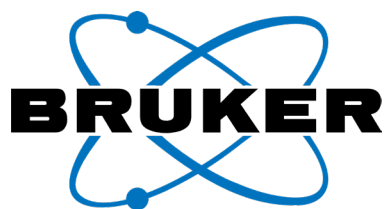
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Nan Wang, Ph.D., *Junior Fellow Observer*

The background of the entire poster is a vibrant red. On the left side, there is a large, vertical image of the CN Tower. At the top right, there is a curved banner showing a group of people in traditional Caribbean carnival costumes, including a woman in the foreground with a large, ornate headdress and gold jewelry. At the bottom, there is a blue wavy banner showing a chef in a white uniform pouring oil from a bottle. A faint, stylized orange map of Toronto is visible in the lower right background.

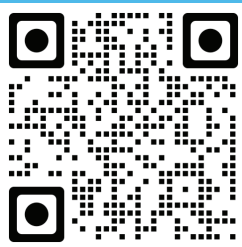
Welcome to TORONTO.

ISMRM & ISMRT
ANNUAL MEETING & EXHIBITION
03-08 JUNE 2023
TORONTO, ONTARIO, CANADA

Welcome to Canada's largest city, home to over 250 cultures, backgrounds and communities.

Toronto is more than a meeting place. It's a source of inspiration, a collection of diverse communities that support each other and embrace new company. Here you'll experience epic events, top attractions, global cuisine, vibrant nightlife, and so much more.

Follow your curiosity through towering skyscrapers, down artistic alleyways, and into an award-winning show. Toronto welcomes you with open arms.



Scan for itinerary
inspiration!

MEETING REGISTRATION

DATE	TIME	LOCATION
Friday, 02 June	14:00-20:00	Level 600
Saturday, 03 June	06:30-18:00	
Sunday, 04 June	07:00-18:30	
Monday, 05 June	06:30-18:30	
Tuesday, 06 June	06:30-18:00	
Wednesday, 07 June		
Thursday, 08 June		

SPEAKER READY ROOM (Audiovisual Preview)

DATE	TIME	LOCATION
Friday, 02 June	14:00-20:00	803A/B
Saturday, 03 June	06:30-18:00	
Sunday, 04 June	07:00-18:00	
Monday, 05 June	06:30-18:00	
Tuesday, 06 June		
Wednesday, 07 June		
Thursday, 08 June	06:30-17:00	

DIGITAL POSTER VIEWING HOURS

DATE	TIME	LOCATION
Monday, 05 June	07:00-20:30	Exhibition Hall
Tuesday, 06 June		
Wednesday, 07 June		
Thursday, 08 June	07:00-16:30	

EXHIBITION HALL HOURS

DATE	TIME	LOCATION
Monday, 05 June	10:00-17:00	Exhibition Hall
Tuesday, 06 June		
Wednesday, 07 June		
Thursday, 08 June	10:00-16:30	

SOCIAL EVENTS

DATE	TIME	EVENT	LOCATION
Sunday, 04 June	18:30-20:00	Opening Reception	Exhibit Hall D/E
Thursday, 08 June	19:30-21:30	Closing Party	North Building Level 300, Exhibit Halls B/C

CORPORATE SYMPOSIA

DATE	TIME	PRESENTER	LOCATION
Sunday, 04 June	12:00	United Imaging Healthcare	Plenary Hall (Exhibit Hall F/G)
Monday, 05 June	12:30	GE Healthcare	
Tuesday, 06 June	12:15	Philips Healthcare	
Wednesday, 07 June	12:15	Siemens Healthineers	
Thursday, 08 June	12:30	Canon Medical	

DESTINATION TORONTO
INFORMATION DESK

DATE	TIME	LOCATION
Friday, 02 June	14:00-17:00	Registration Area
Saturday, 03 June	07:30-17:00	
Sunday, 04 June	07:30-17:00	
Monday, 05 June	08:00-16:00	

CULTIVATE THE
MR LEADERS OF
TOMORROW

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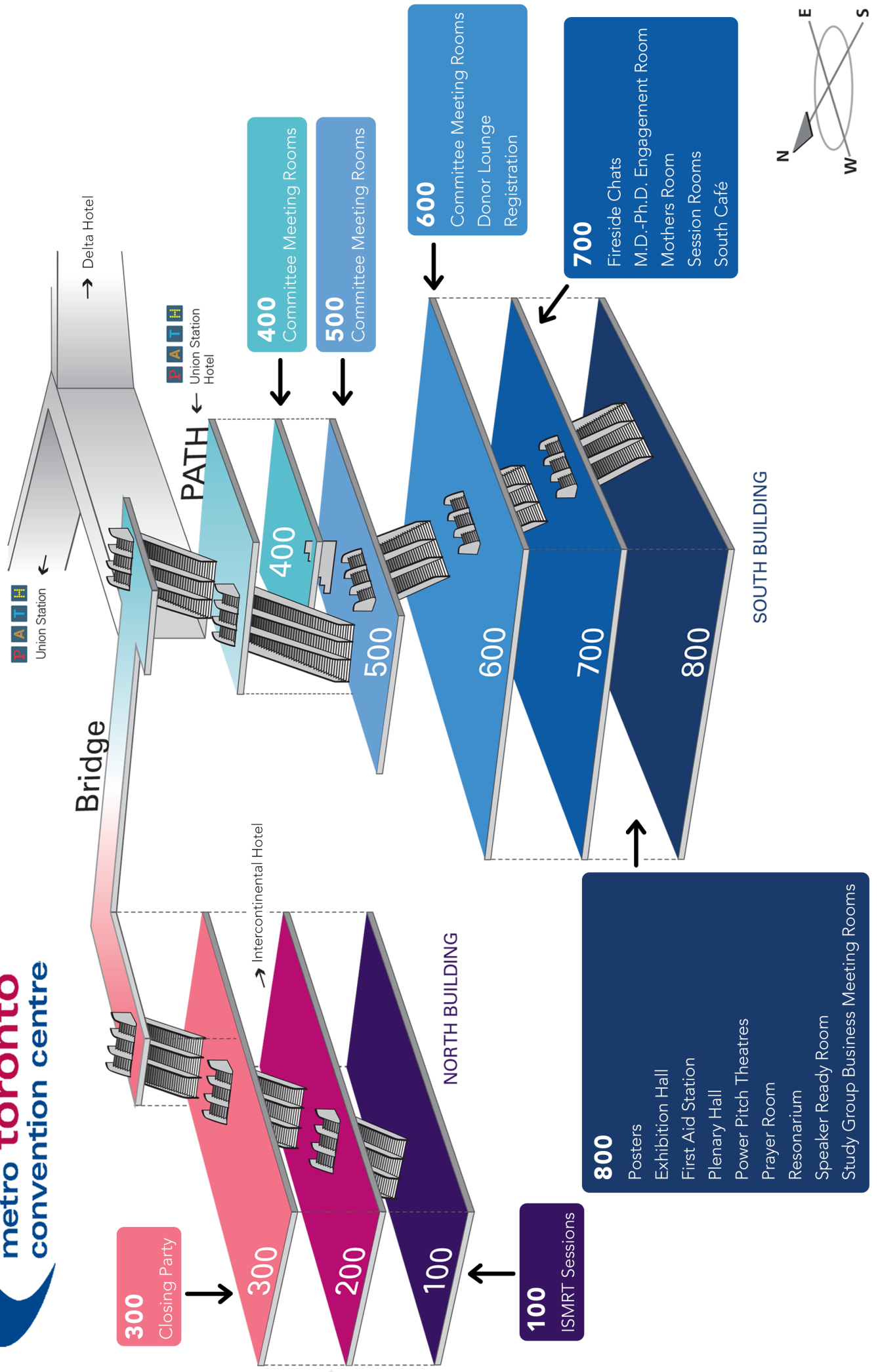
Research & Education
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ISMRRM RESEARCH & EDUCATION FUND
DONOR LOUNGE

DATE	TIME
Saturday, 03 June-Thursday, 08 June	08:00-18:00

In appreciation of your donation of US\$200.00 or more to the ISMRRM Research & Education Fund, we invite you to enjoy the ISMRRM Donor Lounge. See an ISMRRM representative to make a donation and learn the location.



ISMRM STATEMENT ON INCLUSIVITY, ANTI-HARASSMENT & NON-DISCRIMINATION

STATEMENT ON INCLUSIVITY

The ISMRM embraces and values the diversity of all its community regardless of age, race, ethnicity, nationality, culture, gender, gender identity, sexual orientation, disability, religion, and socioeconomic status. It is our mission to ensure that everyone working in our field has equal and fair opportunities to contribute.

ANTI-HARASSMENT & NON-DISCRIMINATION STATEMENT

We stand together against harassment and discrimination. Respectful and professional behavior within the ISMRM is expected at all times. All members are responsible for making the Society a safe, inclusive environment where every individual feels valued, respected, and able to do their best work. Every member of our community should feel empowered to speak up without fear if they experience or observe behavior that violates these core values. Any incidents occurring at ISMRM activities should be brought to the attention of the Society's leadership and will be appropriately addressed.

SESSION ETIQUETTE

- Please turn off or mute all cell phones.
- Video recording in session rooms is not permitted.
- Children 14 and under are not allowed in the session rooms or on the exhibition floor.
- Please find a seat. Standing is not permitted.
- Please be aware all comments and questions are being streamed to the virtual audience.

CREDIT DESIGNATION

The International Society for Magnetic Resonance in Medicine is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians. Please check the Annual Meeting website for the most up-to-date information on credits.

ISMRM ACCREDITATION

The International Society for Magnetic Resonance in Medicine designates this live activity for a maximum of 48.75 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Weekday sessions comprised of educational and scientific content (combined sessions) are eligible for 1.00 AMA PRA Category 1 Credit™ for every full hour of attendance. Up to 34.00 AMA PRA Category 1 Credits™ can be received during the Monday through Thursday sessions. Study group meetings, lunchtime programs, symposia, tutorials (unless otherwise noted), poster sessions, and power pitches are not certified for credit.

See credits available on the following page for weekend session breakdowns.

SELF-ASSESSMENT MODULE

Certain sessions in this meeting have been qualified by the American Board of Radiology in meeting the criteria for self-assessment toward the purpose of fulfilling requirements in the ABR Maintenance of Certification Program. The self-assessment will be included through the evaluations online rather than an interactive poll.

Please consult the Program-At-A-Glance for up-to-date information on accreditation.

TO RECEIVE CREDIT

If you wish to receive credit and/or a certificate of participation, you must record your attendance by completing and submitting evaluation forms online. The evaluation is entirely online; there are no paper forms. Participants who complete their forms online will immediately be able to print certificates showing the number of credits or hours earned.

While in the convention center, use one of the computers at the evaluation stations. Outside the convention center, you can access the ISMRM website at any time with your own computer. Evaluations will be available for two (2) months after the end of the meeting.

SATURDAY, 03 JUNE 2023		SUNDAY, 04 JUNE 2023	
Session Name	Credits	Session Name	Credits
(Neuro)Anatomy for Physicists: McDreamy Teaches Sheldon	3.25	Breast MRI in Breast Cancer: Update & New Approaches Toward Diagnosis & Treatment	3.25
Molecular/Metabolic Imaging	3.25	Myelin Imaging: Strategies & Applications	3.25
MR Physics I: From Spins to Signal	3.50	Artifacts & Correction Strategies	3.50
MR Engineering I: MR Systems for Experts-to-Be	3.00	Neuroinflammation: Basics, Biomarkers, Mechanisms & Implications for Neuroimaging	3.00
The Hows & Whys of Pancreatic & Hepatobiliary Imaging: An Update	3.25	Advances in Image Analysis: How to Get the Most from Your Images	3.50
Role of MRI in Epilepsy Surgery & Neuromodulation	3.25	Vascular Imaging: Viewing Structure & Function	3.25
Artificial Intelligence in Musculoskeletal MRI	3.25	Primer to Low-Field MRI	3.75
Quantifying Spins from Head to Toe	3.00	MSK MRI & Radiology: Fundamentals & Challenges	3.25
Perfusion & Permeability Throughout the Body	3.50	Careers Outside Academia	3.25
MR Physics II: From Signals to Images	3.25	MRI Quantification of Fat: Techniques, Challenges & Clinical Implications	3.00
Tissue Oxygenation: MRI Measurement & Clinical Implications	3.00	Multi-Channel Transmit: From Coil to Pulse Design	3.50
Cardiac MR in Pediatric & Congenital Heart Disease	3.25	Genitourinary Imaging: Basics to the Latest in Prostate Imaging with Updates in Renal, Adrenal & Bladder Imaging	3.25
MR Engineering II: RF Coils for Nerds	3.25	Deep Learning: From Mathematical Models to Clinical Practice	3.00
Image Reconstruction	3.50	Retrospective Strategies to Handle Motion	3.00
Advances in fMRI	3.50	IMPACT Mini Workshop	3.00
Validation of Microstructure Mapping with Diffusion MRI	3.25	Key Contrast Mechanisms for Imaging Neuroinflammation	3.25
Introduction to MRI Physics for Clinicians	3.25	The Need for Speed: Toward a 30-Minute Cardiac MRI Exam	3.25

CLINICAL FOCUS MEETING:
Neuro MRI: Imaging the Fire in the Brain

24.25 AMA* PRA Category 1 Credits™



CLINICAL FOCUS MEETING

IMAGING THE FIRE IN THE BRAIN

Neuroinflammation: From Brain Tumors to
Neuropsychiatric Disorders (and Everything in Between)

DATE	TITLE	TIME	ROOM
SUNDAY, 04 JUNE 2023	Neuroinflammation: Basics, Biomarkers, Mechanisms & Implications for Neuroimaging	08:00-12:00	701A
	Key Contrast Mechanisms for Imaging Neuroinflammation	13:15-17:15	701A
MONDAY, 05 JUNE 2023	Neuroinflammation in Tumors: Imaging for Diagnosis & Treatment	07:00-08:00	701A
	Imaging of the Brachial Plexus: Clinical Needs, Technical Challenges & Future Developments	08:15-10:15	701A
	ISMRT-ISMRT Joint Forum: Neuroinflammation	08:15-10:15	716A/B
	Imaging Inflammation Across Neurological Diseases	08:15-10:15	714A/B
	Pediatric Neuroinflammation	13:45-15:45	701A
	Coronavirus Disease (COVID-19): Novel MR Research in the Brain & Beyond	13:45-14:45	Exhibition Hall
	How to Image Inflammation in the Brain: From Tradition to Vision	16:00-18:00	701A
	Late Breaking	16:00-18:00	715A/B
TUESDAY, 06 JUNE 2023	When the Immune System Targets Itself: MRI for Neuroinflammation in Autoimmune Diseases	07:00-08:00	701A
	Inflammation Across Neurological Diseases I	08:15-09:15	Exhibition Hall
	What Your Neurology Friends Will Soon Be Asking You Re: Imaging of Neuroinflammation	08:15-10:15	701A
	Advances in ASL & BBB Mapping	08:15-10:15	701B
	Multiple Sclerosis	09:15-10:15	Exhibition Hall
	Mind the Gap: From Magnetic to Electrical & Other Physical Properties of Biologic Tissues	11:00-12:00	Plenary Hall (Exhibit Halls F/G)
	Are We Answering the Right Questions? Patient-Oriented Research Perspective for MR Neuroinflammatory Research	13:30-15:30	701A
	¹ H Spectroscopy	13:30-15:30	701B
	Artificial Intelligence for Brain Tumors	13:30-15:30	714A/B
	Connectivity, Multiple Sclerosis & White Matter Degeneration	15:45-16:45	Exhibition Hall
	Cardiac & Vascular Inflammation	15:45-17:45	701A
	From Animal to Human: Potential & Challenges of Translating Preclinical Neuroinflammation Studies to the Bedside	15:45-17:45	715A/B
	Inflammation Across Neurological Diseases II	16:45-17:45	Exhibition Hall

View the full **ISMRT PROGRAM** on page 83.

ISMRRM Annual Meeting & Exhibition

PROGRAM-AT-A-GLANCE

DAY 1: SATURDAY, 03 JUNE

Registration Hours: 06:30-18:00

SATURDAY • MORNING SESSIONS • 08:00-12:00

Educational: Neuro	Educational: Neuro	Educational: Body	Educational: Musculoskeletal	Educational: Acquisition & Analysis
Role of MRI in Epilepsy Surgery & Neuromodulation Room: 701B CME	(Neuro)Anatomy for Physicians: McDreamy Teaches Sheldon Room: 701A CME	The Hows & Whys of Pancreatic & Hepatobiliary Imaging: An Update Room: 713A/B CME	Artificial Intelligence in Musculoskeletal MRI Room: 715A/B CME	Quantifying Spins from Head to Toe Room: 716A/B CME
Educational: Contrast Mechanisms	Educational: Contrast Mechanisms	Educational: Physics & Engineering	Educational: Physics & Engineering	Educational ISMRT
Perfusion & Permeability Throughout the Body Room: 714A/B CME	Molecular/Metabolic Imaging Room: 717A/B CME	MR Physics I: From Spins to Signal Room: 718A CME	MR Engineering I: MR Systems for Experts-to-Be Room: 718B CME	ISMRT Annual Meeting Morning Sessions Room: Constitution Hall 105 & 106 (North Building) CE

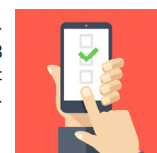
12:00-13:00

Lunch

SATURDAY • AFTERNOON SESSIONS • 13:00-17:00

Educational: Cardiovascular	Educational: Cross-Organ	Educational: fMRI	Educational: Acquisition & Analysis	Educational: Contrast Mechanisms
Cardiac MR in Pediatric & Congenital Heart Disease Room: 713A/B CME	Tissue Oxygenation: MRI Measurement & Clinical Implications Room: 715A/B CME	Advances in fMRI Room: 717A/B CME	Image Reconstruction Room: 716A/B CME	Validation of Microstructure Mapping with Diffusion MRI Room: 714A/B CME
Educational: Physics & Engineering	Educational: Physics & Engineering	Educational: Physics & Engineering	ISMRT	
MR Physics II: From Signals to Images Room: 718A CME	MR Engineering II: RF Coils for Nerds Room: 718B CME	Introduction to MR Physics for Clinicians Room: 701 A CME	ISMRT Annual Meeting Afternoon Sessions Room: Constitution Hall 106 & 107 (North Building) CE	

Schedules may have changed since printing.
Please check the ISMRM & ISMRT Annual Meeting & Exhibition 2023 mobile app or Program-At-A-Glance online for the most current information.




View the full **ISMRT PROGRAM** on page 83.

DAY 2: SUNDAY, 04 JUNE

Registration Hours: 07:00-18:30

Fun Run Start: 06:00

SUNDAY • MORNING SESSIONS • 07:45-11:45

Educational: Neuro	Educational: Cardiovascular	Educational: Body	Educational: Musculoskeletal	Educational: Acquisition & Analysis
<p>Neuroinflammation: Basics, Biomarkers, Mechanisms & Implications for Neuroimaging</p>  <p>Room: 701A CME</p>	<p>Vascular Imaging: Viewing Structure & Function</p> <p>Room: 718A CME</p>	<p>Breast MRI in Breast Cancer: Update & New Approaches Toward Diagnosis & Treatment</p> <p>Room: 713A/B CME</p>	<p>MSK MRI & Radiology: Fundamentals & Challenges</p> <p>Room: 715A/B CME</p>	<p>Advances in Image Analysis: How to Get the Most from Your Images</p> <p>Room: 718B CME</p>
Educational: Acquisition & Analysis	Educational: Contrast Mechanisms	Educational: Physics & Engineering	Educational: Transferable Skills	ISMRT
<p>Artifacts & Correction Strategies</p> <p>Room: 716A/B CME</p>	<p>Myelin Imaging: Strategies & Applications</p> <p>Room: 714A/B CME</p>	<p>Primer to Low-Field MRI</p> <p>Room: 717A/B CME</p>	<p>Careers Outside Academia</p> <p>Room: 701B CME</p>	<p>ISMRT Annual Meeting Morning Sessions</p> <p>Room: Constitution Hall 106 & 107 (North Building) CE</p>

11:45-13:15


Lunch

SILVER CORPORATE SYMPOSIUM (No CME Available)

United Imaging Healthcare

12:00-13:00 | Plenary Hall (Exhibit Hall F/G)

SUNDAY • AFTERNOON SESSIONS • 13:15-17:05

Educational: Cardiovascular	Educational: Body	Educational: Cross-Organ	Educational: Transferable Skills	Educational: Acquisition & Analysis
<p>The Need for Speed: Toward a 30-Minute Cardiac MRI Exam</p> <p>Room: 718A CME</p>	<p>Genitourinary Imaging: Basics to the Latest in Prostate Imaging with Updates in Renal, Adrenal & Bladder Imaging</p> <p>Room: 713A/B CME</p>	<p>MRI Quantification of Fat: Techniques, Challenges & Clinical Implications</p> <p>Room: 714A/B CME</p>	<p>IMPACT Mini Workshop</p> <p>Room: 701B CME</p>	<p>Deep Learning: From Mathematical Models to Clinical Practice</p> <p>Room: 716A/B CME</p>
Educational: Acquisition & Analysis	Educational: Contrast Mechanisms	Educational: Physics & Engineering	ISMRT	
<p>Retrospective Strategies to Handle Motion</p> <p>Room: 718B CME</p>	<p>Key Contrast Mechanisms for Imaging Neuroinflammation</p>  <p>Room: 701A CME</p>	<p>Multi-Channel Transmit: From Coil to Pulse Design</p> <p>Room: 717A/B CME</p>	<p>ISMRT Annual Meeting Afternoon Sessions</p> <p>Room: Constitution Hall 105 & 106 (North Building) CE</p>	



Schedules may have changed since printing.

Please check the ISMRM & ISMRT Annual Meeting & Exhibition 2023 mobile app or Program-At-A-Glance online for the most current information.

View the full **ISMRT PROGRAM** on page 83.

DAY 2: SUNDAY, 04 JUNE

Registration Hours: 07:00-18:30

Fun Run Start: 06:00

Opening Session

Room: Plenary Hall (Exhibit Halls F/G)

17:10	Welcome	Scott B. Reeder, M.D., Ph.D., 2022-2023 ISMRM President Nivedita Agarwal, M.D., 2022-2023 ISMRM Program Chair
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Mansfield Lecture

17:45	<i>Beyond Diagnostics: MR Guides the Way</i>	Clare M.C. Tempny-Afdhal, MB BCh BAO, BA, FISMRM, FACR
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ISMRM OPENING RECEPTION

18:30-20:00

Exhibit Halls (D/E)

Get the Best in
MR Education

ISMRM E-Library




DAY 3: MONDAY, 05 JUNE

Registration Hours: 06:30-18:30

Exhibition Hall Hours: 10:00-17:00

Poster Hall Hours: 07:00-20:30

MONDAY • SUNRISE SESSIONS • 07:00-08:00



Educational: Neuro	Educational: Cardiovascular	Educational: Body	Educational: Musculoskeletal	Educational: Transferable Skills
<p>Neuroinflammation in Tumors: Imaging for Diagnosis & Treatment</p>  <p>Room: 701A CME</p>	<p>Quantitative CMR: Imaging Cardiac Function</p> <p>Room: 718A CME</p>	<p>Wake Up & Take a Deep Breath!</p> <p>Room: 713A/B CME/CE</p>	<p>Clinical Translation of Quantitative MRI in MSK</p> <p>Room: 715A/B CME</p>	<p>I Got the Grant; Now, What? Leading & Managing Scientific Projects I</p> <p>Room: 717A/B CME</p>
Educational: Acquisition & Analysis	Educational: Contrast Mechanisms	Educational: Physics & Engineering		
<p>Making It Work: Sequence Tutorials: ASL</p> <p>Room: 718B CME</p>	<p>Non-Standard MR Contrast Mechanisms: From Properties to Function I: Tissue Stiffness: MR Elastography</p> <p>Room: 714A/B CME</p>	<p>Demystifying the fMRI Signal & Its Biophysical Origins I: fMRI Biophysical Signal Origin & Modeling</p> <p>Room: 716A/B CME</p>		

08:00-08:15


Break

MONDAY • MORNING SESSIONS • 08:15-10:15

Educational Sessions

Educational: Cardiovascular	Educational: Musculoskeletal	Special Session: ISMRM-ISMRT Joint Forum
<p>The Chest Pain Chess Game</p> <p>Room: 718A CME</p>	<p>Imaging of the Brachial Plexus: Clinical Needs, Technical Challenges & Future Developments</p>  <p>Room: 701A CME</p>	<p>ISMRM-ISMRT Joint Forum: Neuroinflammation</p>  <p>Room: 716A/B CME, CE</p>

Scientific Sessions (No CME Available)

Scientific Special Session: YIA	Scientific: Contrast Mechanisms	Scientific: Neuro	Scientific: Pediatrics	Scientific: Body
<p>Young Investigators Award Oral Session</p> <p>Room: 701B</p>	<p>X-Nuclei MR</p> <p>Room: 713A/B</p>	<p>Imaging Inflammation Across Neurological Diseases</p>  <p>Room: 714A/B</p>	<p>Pediatric Neuroimaging</p> <p>Room: 715A/B</p>	<p>Liver: Diffuse Disease & Quantification</p> <p>Room: 717A/B</p>
Scientific: Acquisition & Analysis				
<p>Data Analysis & Processing</p> <p>Room: 718B</p>				

Other Sessions (No CME Available)

Study Group Business Meetings	Study Group Business Meetings	Power Pitch Session Musculoskeletal	Power Pitch Session: Image Acquisition & Analysis	Digital Poster Sessions
<ul style="list-style-type: none"> Low Field MRI: 08:15-09:15 Interventional MR: 09:15-10:15 <p>Room: 801A (No CME Available)</p>	<ul style="list-style-type: none"> MR Elastography (MRE): 09:15-10:15 <p>Room: 801B (No CME Available)</p>	<p>MSK Exotica</p> <p>Room: Power Pitch Theatre 1 (No CME Available)</p>	<p>Novel Acquisition Strategies</p> <p>Room: Power Pitch Theatre 2 (No CME Available)</p>	<p>Body, Cardiovascular, Neuro, Physics & Engineering, Quantitative Imaging</p> <p>Room: Exhibition Hall (No CME Available)</p>

DAY 3: MONDAY, 05 JUNE

Registration Hours: 06:30-18:30

Exhibition Hall Hours: 10:00-17:00

Poster Hall Hours: 07:00-20:30

Traditional Poster Session

Contrast Mechanisms
09:15-10:15

Room: Exhibition Hall
(No CME Available)

10:15-10:30

Break

Plenary Session

Room: Plenary Hall (Exhibit Halls F/G)

10:30

ISMRM Awards: Junior Fellows, Senior Fellows & Gold Medals

Moral & Ethical Issues in MRI Research (CME, CE)

Organizers: Candace Fleischer, Tarique Hussain, Janine Lupo & Andrew Scott

11:15

Crossing Borders in Preclinical Research

Eduardo A. Garza-Villarreal, M.D., Ph.D.

11:35

Ethically Sound Research in Healthy Volunteers & Patients

Hui Mao, Ph.D.

11:55

Publish or Perish: Maintaining Scientific Integrity

Linda Moy, M.D.

12:15

Adjourn

12:15-13:45

Lunch


GOLD CORPORATE SYMPOSIUM (No CME Available)

GE Healthcare

12:30-13:30 | Plenary Hall (Exhibit Halls F/G)

MONDAY • AFTERNOON SESSIONS • 13:45-15:45

Educational Sessions

Educational: Physics & Engineering	Educational: Cross-Organ
<p>Motion Correction Devices from Head to Toe</p> <p>Room: 718A CME/CE</p>	<p>Pediatric Neuroinflammation</p>  <p>Room: 701A CME</p>

Scientific Sessions (No CME Available)

Scientific: Acquisition & Analysis	Scientific: Neuro	Scientific: Machine Learning	Scientific: Cardiovascular	Scientific: Body
<p>Evaluating Therapeutic Response</p> <p>Room: 701B</p>	<p>Brain Tumors: Acquisition</p> <p>Room: 713 A/B</p>	<p>ML/AI Emerging Algorithms & Methodologies</p> <p>Room: 714 A/B</p>	<p>Advanced Physiological Characterization of the Heart</p> <p>Room: 715A/B</p>	<p>Keeping You Abreast!</p> <p>Room: 717A/B</p>

Other Sessions

Member-Initiated Symposium/Tutorial	Study Group Business Meetings	Study Group Business Meetings	Special Session	Power Pitch Session: Physics & Engineering
<p>Clinical Trials Demystified: Who Are All the Stakeholders When MRI Is Used?</p> <p>Room: 716A/B (No CME Available)</p>	<ul style="list-style-type: none"> Current Issues in Brain Function: 13:45-14:45 High Field Systems & Applications: 14:45-15:45 <p>Room: 801A (No CME Available)</p>	<ul style="list-style-type: none"> MR Engineering: 13:45-14:45 White Matter: 14:45-15:45 <p>Room: 801B (No CME Available)</p>	<p>Junior Fellows Symposium: MR Inventions That Changed the Clinical Game</p> <p>Room: 718B CME, CE</p>	<p>RF Strategies at High & Ultra-High Field</p> <p>Room: Power Pitch Theatre 1 (No CME Available)</p>

DAY 3: MONDAY, 05 JUNE

Registration Hours: 06:30-18:30

Exhibition Hall Hours: 10:00-17:00


Poster Hall Hours: 07:00-20:30

Power Pitch Session: Neuro	Digital Poster Session	Digital Poster Sessions	Traditional Poster Session
Advances in Brain Connectivity Room: Power Pitch Theatre 2 (No CME Available)	Young Investigator Award Poster Session Room: Exhibition Hall (No CME Available)	Acquisition & Analysis, Body, Machine Learning, Neuro, Pediatrics, Quantitative Imaging Room: Exhibition Hall (No CME Available)	Machine Learning 14:45-15:45 Room: Exhibition Hall (No CME Available)


15:45-16:00	Break
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MONDAY • EVENING SESSIONS • 16:00-18:00

Educational Sessions

Educational: Contrast Mechanisms	Educational: Physics & Engineering
Contrast Agents Room: 718A CME, CE	How to Image Inflammation in the Brain: From Tradition to Vision  Room: 701A CME

Scientific Sessions (No CME Available)

Scientific: Acquisition & Analysis	Scientific: Neuro	Scientific: Quantitative Imaging	Scientific: Other	Educational: Physics & Engineering
Radiomics, Quantitative MRI & Miscellaneous Data Acquisition & Analysis Room: 701B	Brain Tumors: Analysis Room: 713A/B	Advances in Quantitative Neuroimaging Room: 714A/B	Late Breaking  Room: 715A/B	Low-Field & Point-of-Care/Portable MRI Room: 717A/B

Scientific: Body
Prostate: Cancer, New Techniques & Beyond Room: 718B

Other Sessions (No CME Available)

Member-Initiated Symposium/Tutorial	Study Group Business Meetings	Power Pitch Session: Cardiovascular	Power Pitch Session: Acquisition & Analysis	Digital Poster Sessions
The ISMRM Open Room: 716A/B (No CME Available)	• Detection & Correction of Motion in MRI & MRS: 16:00-17:00 Room: 801B (No CME Available)	Cardiovascular Solid Modeling: Advanced Tissue Characterization Room: Power Pitch Theatre 1 (No CME Available)	Novel Methods in Acquisition & Analysis Room: Power Pitch Theatre 2 (No CME Available)	Acquisition & Analysis, Body, Neuro, Musculoskeletal, Pediatrics Room: Exhibition Hall (No CME Available)

Traditional Poster Sessions
Acquisition & Analysis, Physics & Engineering 16:00-18:00 Room: Exhibition Hall (No CME Available)



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DAY 4: TUESDAY, 06 JUNE

Registration Hours: 06:30-18:00

Exhibition Hall Hours: 10:00-17:00

Poster Hall Hours: 07:00-20:30

TUESDAY • SUNRISE SESSIONS • 07:00-08:00


Educational: Neuro	Educational: Cardiovascular	Educational: Body	Educational: Musculoskeletal	Educational: Transferable Skills
<p>When the Immune System Targets Itself: MRI for Neuroinflammation in Autoimmune Diseases</p>  <p>Room: 701A CME</p>	<p>Quantitative CMR: Parametric Mapping</p> <p>Room: 718A CME</p>	<p>Oncologic Imaging with Whole-Body MRI & PET/MRI</p> <p>Room: 713A/B CME</p>	<p>Fat & Water Imaging in MSK MRI</p> <p>Room: 715A/B CME</p>	<p>I Got the Grant; Now, What? Leading & Managing Scientific Projects II</p> <p>Room: 717A/B CME</p>
Educational: Acquisition & Analysis	Educational: Contrast Mechanisms	Educational: Physics & Engineering		
<p>Making It Work: Sequence Tutorials: EPI</p> <p>Room: 718B CME</p>	<p>Non-Standard MR Contrast Mechanisms: From Properties to Function II: Electromagnetic Properties</p> <p>Room: 714A/B CME</p>	<p>Demystifying the fMRI Signal & Its Biophysical Origins II: Systematic & Physiological Noise in fMRI</p> <p>Room: 716A/B CME</p>		

08:00-08:15


Break

TUESDAY • MORNING SESSIONS • 08:15-10:15

Educational Sessions

Educational: Body	Educational: Acquisition & Analysis
<p>Gut Feeling on MRI Imaging</p> <p>718A CME</p>	<p>What Your Neurology Friends Will Soon Be Asking You Re: Imaging of Neuroinflammation</p>  <p>Room: 701A CME</p>

Scientific Sessions (No CME Available)

Scientific: Contrast Mechanisms	Scientific: Machine Learning	Scientific: Physics & Engineering	Scientific: Neuro	Scientific: Acquisition & Analysis
<p>Advances in ASL & BBB Mapping</p>  <p>Room: 701B</p>	<p>ML/AI Acquisition & Reconstruction</p> <p>Room: 713A/B</p>	<p>Sharing Is Caring: Reproducible Research in MRI</p> <p>Room: 714A/B</p>	<p>Novel Biomarkers for Alzheimer's Disease & Dementia</p> <p>Room: 715A/B</p>	<p>MR Fingerprinting & Synthetic MRI</p> <p>Room: 717A/B</p>

Scientific: Body

Reproduction & Reproductive Pathologies

Room: 718B

Other Sessions (No CME Available)

ISMRM Challenge	Study Group Business Meetings	Power Pitch Session: Neuro	Power Pitch Session: Acquisition & Analysis
<p>Room: 716A/B (No CME Available)</p>	<ul style="list-style-type: none"> Chemical Exchange Saturation Transfer (CEST): 08:15-09:15 Cardiac MR: 09:15-10:15 <p>Room: 801A (No CME Available)</p>	<p>Brain, Spinal Cord & White Matter Injury</p> <p>Room: Power Pitch Theatre 1 (No CME Available)</p>	<p>Data Analysis & Processing</p> <p>Room: Power Pitch Theatre 2 (No CME Available)</p>

DAY 4: TUESDAY, 06 JUNE

Registration Hours: 06:30-18:00

Exhibition Hall Hours: 10:00-17:00

Poster Hall Hours: 07:00-20:30

Digital Poster Sessions	Traditional Poster Session
Acquisition & Analysis, Body, Contrast Mechanisms, Musculoskeletal, Neuro, Physics & Engineering Room: Exhibition Hall (No CME Available)	Pediatrics 08:15-09:15 Room: Exhibition Hall (No CME Available)

10:15-10:30	Break
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Plenary Session

Room: Plenary Hall (Exhibit Halls F/G)

NIBIB New Horizons Lecture

10:30	Brain Tumor Imaging & AI: A Clinical Roadmap	Ji Eun Park, M.D., Ph.D.
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Mind the Gap: From Magnetic to Electrical & Other Physical Properties of Biologic Tissues

Organizers: Seena Dehkharghani, Rita Schmidt & Khin Khin Tha

11:15	Principles of Electrical Properties in Biologic Tissues & Their Relation to Induced Magnetization	Rosalind J. Sadleir, Ph.D.
11:35	Detection & Imaging of Tissue Electrical Properties	Leeor Alon, Ph.D.
11:40	Clinical & Preclinical Applications of Electrical Properties in the Brain	Serguei Semenov, Ph.D.
12:00	Adjourn	

12:00-12:30	Lunch
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GOLD CORPORATE SYMPOSIUM (No CME Available)

Philips Healthcare



12:15-13:15 | Plenary Hall (Exhibit Halls F/G)

TUESDAY • AFTERNOON SESSIONS • 13:30-15:30

Educational Sessions

Educational: Body	Educational: Transferable Skills
Female Pelvis: Quantitative Imaging for Clinical Decisions Room: 718A CME	Are We Answering the Right Questions? Patient-Oriented Research Perspective for MR Neuroinflammatory Research  Room: 715A/B CME

Scientific Sessions (No CME Available)

Scientific: Contrast Mechanisms	Scientific: Body	Scientific: Acquisition & Analysis	Scientific: Acquisition & Analysis	Scientific: Cardiovascular
1H Spectroscopy  Room: 701B	Pancreas, Fat & Gut Room: 713A/B	Artificial Intelligence for Brain Tumors  Room: 701A	Pulse Sequences & Encoding Methods Room: 701A	Nothing Stands Still Room: 717A/B

DAY 4: TUESDAY, 06 JUNE

Registration Hours: 06:30-18:00

Exhibition Hall Hours: 10:00-17:00

Poster Hall Hours: 07:00-20:30

Scientific: Neuro

Functional & Quantitative
Imaging of the Spinal Cord

Room: 718B

Other Sessions (No CME Available)


Member-Initiated Symposium/Tutorial	Study Group Business Meetings	Study Group Business Meetings	Power Pitch Session: Neuro	Power Pitch Session: Physics & Engineering
Brain Drainage & Function Room: 716A/B (No CME Available)	• PET-MRI: 13:30-14:30 Room: 801A (No CME Available)	• MR in Radiation Therapy: 13:30-14:30 Room: 801B (No CME Available)	Neurodegeneration in Human & Animal Models Room: Power Pitch Theatre 1 (No CME Available)	MR Safety: Everything's Under Control! Room: Power Pitch Theatre 2 (No CME Available)
Digital Poster Sessions	Traditional Poster Session			
Acquisition & Analysis, Body, Contrast Mechanisms, Neuro Room: Exhibition Hall (No CME Available)	Neuro 13:30-14:30 Room: Exhibition Hall (No CME Available)			

15:30-15:45


Break

TUESDAY • EVENING SESSIONS • 15:45-17:45

Educational Sessions

Educational: Cardiovascular	Educational: Cross-Organ
 <p>Cardiac & Vascular Inflammation</p> <p>Room: 701A CME</p>	<p>Metabolic Profiling of Cancer</p> <p>Room: 718A CME</p>

Scientific Sessions (No CME Available)

Scientific: Neuro	Scientific: Musculoskeletal	Scientific: Neuro	Scientific: Neuro	Scientific: Quantitative Imaging
Laminar fMRI Room: 701B	Technical Developments of MSK Imaging Room: 713A/B	All About Psychiatry with MRI Room: 714A/B	<p>From Animal to Human: Potential & Challenges of Translating Preclinical Neuroinflammation Studies to the Bedside</p>  <p>Room: 715A/B</p>	Novel Quantitative Imaging Methods: Acquisition Room: 717A/B
Scientific: Contrast Mechanisms				
Brain Microstructure: Restriction & Exchange Room: 718B				

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information.



DAY 4: TUESDAY, 06 JUNE

Registration Hours: 06:30-18:00

Exhibition Hall Hours: 10:00-17:00

Poster Hall Hours: 07:00-20:30

Other Sessions (No CME Available)

Member-Initiated Symposium/Tutorial	Study Group Business Meetings	Study Group Business Meetings	Power Pitch Session: Neuro	Power Pitch Session: Body
<p>Laminar Structure-Function Exploration of the Cerebral Cortex Using UHF</p> <p>Room: 716A/B (No CME Available)</p>	<ul style="list-style-type: none"> • MR Safety: 15:45-16:45 • Molecular & Cellular Imaging: 16:45-17:45 <p>Room: 801A (No CME Available)</p>	<ul style="list-style-type: none"> • MR Spectroscopy: 15:45-16:45 • MR in Drug Research: 16:45-17:45 <p>Room: 801B (No CME Available)</p>	<p>Ask Not What You Can Do for Your AI; Ask What Your AI Can Do for You: Razor's Edge in Neurovascular & Cardiovascular MRI</p> <p>Room: Power Pitch Theatre 1 (No CME Available)</p>	<p>Body: Image-Guided Treatment: Assessment, Response & Prediction</p> <p>Room: Power Pitch Theatre 2 (No CME Available)</p>
Digital Poster Sessions	Traditional Poster Sessions			
<p>Acquisition & Analysis, Body, Contrast Mechanisms, Neuro, Quantitative Imaging</p> <p>Room: Exhibition Hall (No CME Available)</p>	<p>Body, Cardiovascular 15:45-17:45</p> <p>Room: Exhibition Hall (No CME Available)</p>			



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Upcoming ISMRM **WORKSHOPS**



ISMRM Workshop on **CURRENT ISSUES IN BRAIN FUNCTION**

04-06 September 2023
Padua, Italy

Abstract Deadline: 05 July 2023



ISMRM Workshop on **WHATEVER: WHITE MATTER, ANALYSIS, TRANSLATION, EXPERIMENTAL VALIDATION, EVALUATION & REPRODUCIBILITY**

18-20 September 2023
Nashville, TN, USA

Abstract Deadline: 12 July 2023



ISMRM-SNMMI Co-Provided Workshop on **PET/MRI**

26-29 October 2023
Los Angeles, CA, USA

Abstract Deadline: 08 August 2023

DAY 5: WEDNESDAY, 07 JUNE

Registration Hours: 06:30-18:00

Exhibition Hall Hours: 10:00-17:00

Poster Hall Hours: 07:00-20:30

WEDNESDAY • SUNRISE SESSIONS • 07:00-08:00

Educational: Neuro	Educational: Cardiovascular	Educational: Body	Educational: Musculoskeletal	Educational: Transferable Skills
Leaky Gut, Leaky Brain in Dementia? From Microbiome to Blood-Brain Barrier Room: 701A CME	Quantitative CMR: Cardiac Diffusion & Perfusion Room: 701B CME	Oncologic Imaging at Low Field Room: 713A/B CME	Imaging Musculoskeletal Pain Room: 715A/B CME	I Got the Grant; Now, What? Leading & Managing Scientific Projects III Room: 717A/B CME
Educational: Acquisition & Analysis	Educational: Contrast Mechanisms	Educational: Physics & Engineering		
Making It Work: Sequence Tutorials: MRF Room: 718B CME	Non-Standard MR Contrast Mechanisms: From Properties to Function III: Novel/Alternative Contrast Mechanisms for Functional MRI Room: 718A CME	Demystifying the fMRI Signal & Its Biophysical Origins III: Systematic & Physiological Noise in fMRI Room: 716A/B CME		

08:00-08:15

Break

WEDNESDAY • MORNING SESSIONS • 08:15-10:15

Educational Sessions

Educational: Contrast Mechanisms	Educational: Physics & Engineering
Synthetic Contrasts 718A CME	Physics of MRI Safety for Clinicians Room: 701A CME

Scientific Sessions (No CME Available)

Scientific: Musculoskeletal	Scientific: Physics & Engineering	Scientific: Acquisition & Analysis	Scientific: Neuro	Scientific: Body
Musculoskeletal Combined Session Room: 701B	New Devices for Intervention & Sensing Room: 713A/B	Signal Modeling & Representation Room: 714A/B	Blood Vessels Room: 715A/B	Resonating with Hepatobiliary & Pancreatic Tumors: What's New? Room: 717A/B
Scientific: Acquisition & Analysis				
Novel Advances in Segmentation Room: 718B				

Other Sessions (No CME Available)

Study Group Business Meetings	Study Group Business Meetings	Power Pitch Session: Acquisition & Analysis	Power Pitch Session: Contrast Mechanisms	Digital Poster Session
• Diffusion: 09:15-10:15 Room: 801A (No CME Available)	• Quantitative MR: 09:15-10:15 Room: 801B (No CME Available)	Deep Learning Image Reconstruction Room: Power Pitch Theatre 1 (No CME Available)	Hyperpolarized MR Room: Power Pitch Theatre 2 (No CME Available)	Acquisition & Analysis, Body, Cardiovascular, Contrast Mechanisms, Machine Learning, Physics & Engineering, Preclinical Room: Exhibition Hall (No CME Available)
Traditional Poster Session				
Musculoskeletal 09-15-10:15 Room: Exhibition Hall (No CME Available)				

10:15-10:30

Break

DAY 5: WEDNESDAY, 07 JUNE

Registration Hours: 06:30-18:00

Exhibition Hall Hours: 10:00-17:00

Poster Hall Hours: 07:00-20:30

Plenary Session

Room: Plenary Hall (Exhibit Halls F/G)

Ernst Lecture

10:30	<i>Celebrating the Convergence Science of the ISMRM</i>	Richard L. Ehman, M.D.
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PET-MR Today & Tomorrow: The Power of Fusion

Organizers: Nandita M. deSouza & Katja Pinker Domenig

11:00	<i>FDG PET-MRI: Wins Over PET-CT</i>	Munenobu Nogami, M.D., Ph.D.
11:20	<i>Integrating Novel Tracer Development & Functional MRI in PET-MRI Systems</i>	Tone F. Bathen, Ph.D.
11:40	<i>PET-MR in Cancer Theranostics: Where Are We Headed?</i>	Lisa Bodei, M.D.
12:00	Adjourn	

12:00-13:30

Lunch

GOLD CORPORATE SYMPOSIUM (No CME Available)

Siemens Healthineers

12:15-13:15 | Plenary Hall (Exhibit Halls F/G)

WEDNESDAY • AFTERNOON SESSIONS • 13:30-15:30

Educational Sessions

Educational: Neuro	Educational: Acquisition & Analysis
Fetal & Pediatric Neuroimaging: Challenges & Opportunities Room: 718A CME	Image Reconstruction & Analysis for Clinicians Room: 701A CME

Scientific Sessions (No CME Available)

Scientific: Acquisition & Analysis	Scientific: Neuro	Scientific: Body	Scientific: Contrast Mechanisms	Scientific: Contrast Mechanisms
Advances in Image Reconstruction Room: 701B	Advanced Cerebrovascular MRI: Pipes, Perfusion, Parametric Imaging & Predictive Models Room: 713A/B	Enriching Our Toolbox to Link Tumor Morphology with Behavior Room: 714A/B	CEST & MT Room: 715A/B	New Currents: New Contrast Mechanisms to Image Neuronal Activity Room: 717A/B

Scientific: Cardiovascular

Everything Flows

Room: 718B

Other Sessions (No CME Available)

Member-Initiated Symposium/Tutorial	Study Group Business Meetings	Study Group Business Meetings	Power Pitch Session: Machine Learning	Power Pitch Sessions: Contrast Mechanisms
Physical Mechanisms, Methods & Applications of Inhomogeneous Magnetization Transfer (ihMT) Room: 716A/B (No CME Available)	• Placenta & Fetus: 14:30-15:30 Room: 801A (No CME Available)	• Renal MRI: 13:30-14:30 • Psychiatric MR Spectroscopy & Imaging: 14:30-15:30 Room: 801B (No CME Available)	ML/AI Showcase Room: Power Pitch Theatre 1 (No CME Available)	Getting the Best Out of Diffusion MRI Room: Power Pitch Theatre 2 (No CME Available)

Digital Poster Sessions	Traditional Poster Session	Traditional Poster Session
Acquisition & Analysis, Body, Cardiovascular, Contrast Mechanisms, Machine Learning, Musculoskeletal, Physics & Engineering Room: Exhibition Hall (No CME Available)	Preclinical 14:30-15:30 Room: Exhibition Hall (No CME Available)	Chapters Exhibition 14:30-15:30 Room: Exhibition Hall (No CME Available)

DAY 5: WEDNESDAY, 07 JUNE

Registration Hours: 06:30-18:00

Exhibition Hall Hours: 10:00-17:00

Poster Hall Hours: 07:00-20:30

15:30-15:45

Break

WEDNESDAY • EVENING SESSIONS • 15:45-17:45

Educational Sessions

Educational: Neuro	Educational: Physics & Engineering
Novel Acquisition & Machine Learning Techniques for Quantitative MRI in Neuroimaging Room: 701A CME	Standardized Measures & Benchmarks Room: 718A CME

Scientific Sessions (No CME Available)

Scientific: Machine Learning	Scientific: Neuro	Scientific: Acquisition & Analysis	Scientific: Neuro	Scientific: Contrast Mechanisms
ML/AI New Ideas Room: 701B	Epilepsy Room: 713A/B	Motion Detection & Correction Techniques Room: 714A/B	Brain Connectivity in Humans & Animals Room: 715A/B	Tissue Properties: Electrical, Magnetic & Microstructural Effects Room: 717A/B

Scientific: Physics & Engineering
Advances in RF Coil Arrays Room: 718B

Other Sessions (No CME Available)

Member-Initiated Symposium/Tutorial	Study Group Business Meetings	Study Group Business Meetings	Power Pitch Session: Cardiovascular	Power Pitch Session: Quantitative Imaging
The Cardiac MRI Rodeo: Taming AI for Clinical Practice Room: 716A/B (No CME Available)	<ul style="list-style-type: none"> Hyperpolarized Media MR: 15:45-16:45 MR Flow & Motion Quantitation: 16:45-17:45 Room: 801B (No CME Available)	<ul style="list-style-type: none"> Pediatric MR: 15:45-16:45 Hyperpolarization Methods & Equipment: 16:45-17:45 Room: 801B (No CME Available)	Cardiovascular Liquid Dynamics: Advanced Flow & Angiography Room: Power Pitch Theatre 1 (No CME Available)	Novel Quantitative Imaging Methods: Reconstruction & Analysis Room: Power Pitch Theatre 2 (No CME Available)

Digital Poster Sessions
Body, Cardiovascular, Contrast Mechanisms, Machine Learning, Physics & Engineering Room: Exhibition Hall (No CME Available)

17:45-18:00

Break

ISMRM Business Meeting

18:00-19:00

Room: 701B

(No CME Available)

EDI Forum

19:00-21:00

Room: 701A

(No CME Available)

DAY 6: THURSDAY, 08 JUNE

Registration Hours: 06:30-18:00

Exhibition Hall Hours: 10:00-16:30

Poster Hall Hours: 07:00-16:30

THURSDAY • SUNRISE SESSIONS • 07:00-08:00

Educational: Neuro	Educational: Cardiovascular	Educational: Body	Educational: Musculoskeletal	Educational: Transferable Skills
Does Neuroinflammation Play a Role in Psychiatric Disorders? A Psychoradiology Perspective Room: 701A CME	Quantitative CMR: Quantifying Flow Room: 701B CME	What's New in Liver Fat & Iron Quantification? Room: 713A/B CME	Imaging the Move: Dynamic/Real-Time MRI for MSK Applications II Room: 715A/B CME	I Got the Grant; Now, What? Leading & Managing Scientific Projects IV Room: 717A/B CME
Educational: Acquisition & Analysis	Educational: Contrast Mechanisms	Educational: Physics & Engineering		
Making It Work: Sequence Tutorials: TSE Room: 718B CME	Non-Standard MR Contrast Mechanisms: From Properties to Function IV: Short & Sweet: UTE & ZTE Room: 718A CME	Demystifying the fMRI Signal & Its Biophysical Origins IV: Connecting the fMRI Signal to Metabolism Room: 716A/B CME		

08:00-08:15

Break

THURSDAY • MORNING SESSIONS • 08:15-10:15

Educational Sessions

Educational: Cross-Organ	Educational: Contrast Mechanisms
Neonatal Body MR: The Imaging of Small Moving Targets 718A CME	Relaxation: Principles & Acquisition/Reconstruction Strategies Room: 701A CME

Scientific Sessions (No CME Available)

Scientific: Musculoskeletal	Scientific: Neuro	Scientific: Quantitative Imaging	Scientific: Acquisition & Analysis	Scientific: Acquisition & Analysis
Cartilage Room: 701B	White Matter Room: 713A/B	Discovering the Whole Picture for Quantitative MRI: Clinical Value Meets Novel Technology Room: 714A/B	Artifacts & Mitigation Strategies Room: 715A/B	Artificial Intelligence/Machine Learning New Technology & Clinical Translation Room: 717A/B
Scientific: Acquisition & Analysis				
Flow, Perfusion & CSF Room: 718B				

Other Sessions (No CME Available)

Special Session	Study Group Business Meetings	Study Group Business Meetings	Power Pitch Session: Neuro	Power Pitch Session: Body
Shark Tank Room: 716A/B (No CME Available)	• MR of Cancer: 09:15-10:15 Room: 801A (No CME Available)	• Perfusion: 09:15-10:15 Room: 801B (No CME Available)	MRI of Nerves & the Nervous System Room: Power Pitch Theatre 1 (No CME Available)	What's New in Body Imaging: Emerging Techniques & AI Room: Power Pitch Theatre 2 (No CME Available)
Digital Poster Sessions				
Acquisition & Analysis, Body, Cardiovascular, Contrast Mechanisms, Machine Learning, Neuro Room: Exhibition Hall (No CME Available)				

10:15-10:30

Break

Plenary Session

Room: Plenary Hall (Exhibit Halls F/G)

Young Investigator Award

10:30	Young Investigators Award Presentation	Derek Jones, Ph.D., 2023-2024 ISMRM President
10:45	Special Session: We Are One	Rainer Goebel, Ph.D.

Tailoring MRI to Local Needs: A Journey Around the Globe

Organizers: Anthony Christodoulou, Sonal Krishan, Cristián Tejos & Khin Khin Tha

11:15	MRI Services to Meet the Needs of Southeast Asia	Pek-Lan Khong, M.B.B.S., M.D., FRCR
11:30	Building Accessible MRI Scanners to Meet the Infrastructural Demands of South Asia	Arjun Arunachalam, Ph.D.
11:45	Social & Educational Needs for Building Sustainable MRI Access in Sub-Saharan Africa	Udunna C. Anazodo, Ph.D.
12:00	Establishing a Community for MR Research Expertise in Latin America	Pablo Irarrazaval, Ph.D.
12:15	Adjourn	

12:15-13:45

Lunch

GOLD CORPORATE SYMPOSIUM (No CME Available)

Canon Medical

12:30-13:30 | Plenary Hall (Exhibit Halls F/G)

THURSDAY • AFTERNOON SESSIONS • 13:45-15:45

Educational Sessions

Educational: Physics & Engineering
Hyperpolarized MRI & MRS: From Physics to Applications
Room: 701A CME

Scientific Sessions (No CME Available)

Scientific: Physics & Engineering	Scientific: Pediatrics	Scientific: Quantitative Imaging	Scientific: Contrast Mechanisms	Scientific: Body
Gradients & RF Optimization Room: 701B	Fetal MRI: Current Topics in Cardiovascular & Neuroimaging Room: 713A/B	Validation of Quantitative Imaging Techniques Room: 714A/B	Novel Methods in fMRI Room: 715A/B	Renal Imaging: Structure & Function Room: 717A/B
Scientific: Neuro	Scientific: Cardiovascular			
Aging Brain Room: 718A	State-of-the-Art Imaging in Human Cardiovascular Health & Disease Room: 718B			

Other Sessions (No CME Available)

Member-Initiated Symposium/Tutorial	Study Group Business Meetings	Study Group Business Meetings	Power Pitch Session: Neuro	Power Pitch Sessions: Contrast Mechanisms
So You've Got ASL Data... Now, What? Room: 716A/B (No CME Available)	<ul style="list-style-type: none"> Musculoskeletal MR: 13:45-14:45 Imaging Neurofluids: 14:45-15:45 Room: 801A (No CME Available)	<ul style="list-style-type: none"> Reproducible Research: 13:45-14:45 Electro-Magnetic Tissue Properties (SWI): 14:45-15:45 Room: 801B (No CME Available)	Head & Neck Room: Power Pitch Theatre 1 (No CME Available)	Relaxometry & Multicontrast MRI: From Cancer to White Matter & More Room: Power Pitch Theatre 2 (No CME Available)

DAY 6: THURSDAY, 08 JUNE

Registration Hours: 06:30-18:00

Exhibition Hall Hours: 10:00-16:30

Poster Hall Hours: 07:00-16:30

Digital Poster Sessions

Acquisition & Analysis,
Cardiovascular, Contrast
Mechanisms, Machine Learning,
Neuro, Physics & Engineering,
Quantitative Imaging

Room: Exhibition Hall
(No CME Available)

15:45-16:00

Break

THURSDAY • EVENING SESSIONS • 16:00-18:00

Educational Sessions

Educational: Acquisition & Analysis

MR Artifacts Game Show

Room: 701A
CME

Scientific Sessions (No CME Available)

Scientific: Machine Learning	Scientific: Neuro	Scientific: Body	Scientific: Physics & Engineering	Scientific: Cardiovascular
ML/AI Analysis, Post-Processing, Disease Diagnosis & Prediction Room: 701B	Parkinson's Disease Room: 713A/B	Lung: From Breathing to Blood Flow Room: 714A/B	Higher Field, Higher Expectations Room: 715A/B	Non-Ischemic Cardiomyopathies: From Microstructure & Tissue Characterization to Function & Outcomes Room: 717A/B
Scientific: Musculoskeletal	Scientific: Neuro			
Potpourri of Clinical MSK Imaging Room: 718A	Novel MR Techniques & Clinical Applications in Neurofluids Room: 718B			

Other Sessions (No CME Available)

Member-Initiated Symposium/Tutorial	Study Group Business Meetings	Study Group Business Meetings
Vendor-Agnostic Pulse Sequence Programming & Image Reconstruction Room: 716A/B (No CME Available)	• X-Nuclei Imaging: 16:00-17:00 Room: 801A (No CME Available)	• Body MRI: 16:00-17:00 • Metabolomics & Metabolomic Imaging (MMI): 17:00-18:00 Room: 801B (No CME Available)

18:00-18:15

Break

Closing Session

Room: Plenary Hall (Exhibit Halls F/G)

18:15	Closing Remarks	
Lauterbur Lecture		
18:30	<i>To Image & Imagine: A Molecular Imaging Journey Through the Cancer Universe</i>	Zaver M. Bhujwalla, Ph.D.
19:15	Adjourn	

Closing Party

19:30-21:30 | North Building Level 300, Exhibit Halls B/C

Important: Opt-in required during registration to attend.

SEE YOU NEXT YEAR IN *Singapore!*

ISMRM

AND

ISMRT

A SECTION OF THE ISMRM

ONE
COMMUNITY
IMPROVING LIFE THROUGH
MAGNETIC RESONANCE

ISMRM & ISMRT
ANNUAL MEETING & EXHIBITION

Singapore
04-09 MAY 2024



ABSTRACT DEADLINE: 08 NOVEMBER 2023

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MONDAY, 05 JUNE 2023

	TIME	ROOM
Low Field	08:15-09:15	801A
Interventional MR	09:15-10:15	801A
MR Elastography (MRE)	09:15-10:15	801B
Current Issues in Brain Function	13:45-14:45	801A
MR Engineering	13:45-14:45	801B
High Field Systems & Applications	14:45-15:45	801A
White Matter	14:45-15:45	801B
Detection & Correction of Motion in MRI & MRS	16:00-17:00	801B

TUESDAY, 06 JUNE 2023

	TIME	ROOM
CEST	08:15-09:15	801A
Cardiac MR	09:15-10:15	801A
PET-MRI	13:30-14:30	801A
MR in Radiation Therapy	13:30-14:30	801B
MR Safety	15:45-16:45	801A
MR Spectroscopy	15:45-16:45	801B
Molecular & Cellular Imaging	16:45-17:45	801A
MR in Drug Research	16:45-17:45	801B

WEDNESDAY, 07 JUNE 2023

	TIME	ROOM
Diffusion	09:15-10:15	801A
Quantitative MRI	09:15-10:15	801B
Renal MRI	13:30-14:30	801B
Placenta & Fetus	14:30-15:30	801A
Psychiatric MR Spectroscopy & Imaging	14:30-15:30	801B
Hyperpolarized Media MR	15:45-16:45	801A
Pediatric MR	15:45-16:45	801B
MR Flow & Motion Quantitation	16:45-17:45	801A
Hyperpolarized Methods & Equipment	16:45-17:45	801B

THURSDAY, 08 JUNE 2023

	TIME	ROOM
MR of Cancer	09:15-10:15	801A
Perfusion	09:15-10:15	801B
Musculoskeletal MR	13:45-14:45	801A
Reproducible Research	13:45-14:45	801B
Imaging Neurofluids	14:45-15:45	801A
Electro-Magnetic Tissue Properties (SWI)	14:45-15:45	801B
X-Nuclei Imaging	16:00-17:00	801A
Body MRI	16:00-17:00	801B
Metabolomics & Metabolomic Imaging (MMI)	17:00-18:00	801A

Power Pitch Posters

Exhibition Hall

SESSION NAME	SESSION START	NUMBER	THEATER
Monday, 05 June 2023			
MSK Exotica	08:15	84 - 103	1
Novel Acquisition Strategies	08:15	104 - 123	2
RF Strategies at High & Ultra-High Field	13:45	199 - 218	1
Advances in Brain Connectivity	13:45	219 - 238	2
Cardiovascular Solid Modeling: Advanced Tissue Characterization	16:00	329 - 346	1
Novel Methods in Acquisition & Analysis	16:00	347 - 366	2
Tuesday, 06 June 2023			
Brain, Spinal Cord & White Matter Injury	08:15	451 - 469	1
Data Analysis & Processing	08:15	470 - 488	2
Neurodegeneration in Human & Animal Models	13:30	574 - 593	1
MR Safety: Everything's Under Control!	13:30	594 - 613	2
Ask Not What You Can Do for Your AI; Ask What Your AI Can Do for You: Razor's Edge in Neurovascular & Cardiovascular MRI	15:45	694 - 713	1
Body: Image-Guided Treatment: Assessment, Response & Prediction	15:45	714 - 733	2
Wednesday, 07 June 2023			
Deep Learning Image Reconstruction	08:15	819 - 838	1
Hyperpolarized MR	08:15	839 - 858	2
ML/AI Showcase	13:30	939 - 958	1
Getting the Best Out of Diffusion MRI	13:30	959 - 978	2
Cardiovascular Liquid Dynamics: Advanced Flow & Angiography	15:45	1069 - 1088	1
Novel Quantitative Imaging Methods: Reconstruction & Analysis	15:45	1089 - 1108	2
Thursday, 08 June 2023			
MRI of Nerves & the Nervous System	08:15	1189 - 1207	1
What's New in Body Imaging: Emerging Techniques & AI	08:15	1208 - 1227	2
Head & Neck	13:45	1328 - 1347	1
Relaxometry & Multicontrast MRI: From Cancer to White Matter & More	13:45	1348 - 1367	2

Traditional Posters

Exhibition Hall

SESSION NAME	SESSION START	NUMBER
Monday, 05 June 2023		
Contrast Mechanisms	09:15	5239 - 5251
Machine Learning	14:45	5252 - 5253
Acquisition & Analysis	16:00	5254 - 5275
Physics & Engineering	17:00	5276 - 5288
Tuesday, 06 June 2023		
Pediatrics	08:15	5289 - 5319
Neuro	13:30	5320 - 5350
Body	15:45	5351 - 5358
Cardiovascular	16:45	5359 - 5365
Wednesday, 07 June 2023		
Musculoskeletal	09:15	5366 - 5368
Preclinical	14:30	5369 - 5372

Abstract Exhibits

Exhibition Hall

EXHIBITS
Educational Exhibits
Chapters Exhibition (Wednesday, 07 June 2023)
AMPC Selections

Digital Posters

Exhibition Hall

SESSION NAME	SESSION START	POSTER #
Monday, 05 June 2023		
Acquisition & Analysis		
Motion Correction I	13:45	1818 - 1837
Motion Correction II	14:45	1997 - 2016
Acquisition & Analysis Techniques	14:45	2017 - 2035
MR Fingerprinting & Synthetic MRI Methods	16:00	2175 - 2194
Sequence Design for Quantitative Imaging I	16:00	2195 - 2213
Acquisition & Analysis Techniques II	16:00	2214 - 2233
MR Fingerprinting & Synthetic MRI	17:00	2352 - 2371
Advanced Acquisition Techniques	17:00	2372 - 2390
Software Tools	17:00	2391 - 2410
Quantitative Imaging, AI & Miscellaneous	17:00	2411 - 2430
Body		
AI Application in Body Imaging I	08:15	1467 - 1486
Cancer: Technical Advances for Clinical Benefit	08:15	1487 - 1505
AI Application in Body Imaging II	09:15	1644 - 1663
Tumor Characterization	09:15	1664 - 1683
Hepatobiliary Imaging: Current Applications & Advances I	13:45	1838 - 1857
Advances in Prostate Imaging	13:45	1858 - 1877
Hepatobiliary Imaging: Current Applications & Advances II	14:45	2036 - 2055
More Advances in Prostate Imaging	14:45	2056 - 2075
Updates in Oncologic Liver Imaging I	16:00	2234 - 2253
Updates in Oncologic Liver Imaging II	17:00	2431 - 2450
Cardiovascular		
Vessel Wall & Lumen Imaging I	08:15	1506 - 1525
Vessel Wall & Lumen Imaging II	09:15	1684 - 1702
Clinical & Preclinical		
Pediatric Cardiopulmonary MRI	13:45	1977 - 1996
Pediatric Body & MSK MRI	14:45	2135 - 2154
Fetal MRI	16:00	2332 - 2351
Pediatric Neuroimaging	17:00	2509 - 2528
Machine Learning		
ML/AI for Disease Detection, Diagnosis & Prediction	13:45	1878 - 1897

DIGITAL POSTERS • EXHIBITION HALL (CONTINUED)

Neuro			
Neurodegeneration I	08:15	1526 - 1544	
Spinal Cord Imaging	08:15	1545 - 1564	
Tumors: The Importance of Diffusion & Perfusion I	08:15	1565 - 1584	
Imaging Nerves, Brain Injury & Brain Dysfunction	09:15	1703 - 1720	
Neurodegeneration II	09:15	1721 - 1739	
Tumors: The Importance of Diffusion & Perfusion II	09:15	1740 - 1759	
Coronavirus Disease (COVID-19): Novel MR Research in the Brain & Beyond	13:45	1898 - 1917	
Neurodegeneration III	13:45	1918 - 1937	
Cerebrovascular & Stroke Imaging I	13:45	1938 - 1957	
Exploring Tumors Based on Digits: Omics, Machine Learning & Quantification I	13:45	1958 - 1976	
Brain Potpourri	14:45	2076 - 2094	
Cerebrovascular & Stroke Imaging II	14:45	2095 - 2114	
Exploring Tumors Based on Digits: Omics, Machine Learning & Quantification II	14:45	2115 - 2134	
Advanced Imaging in Parkinson's Disease	16:00	2274 - 2293	
Blood Vessels I	16:00	2294 - 2313	
Seeking Further Mechanisms in Tumors I	16:00	2314 - 2331	
Blood Vessels II	17:00	2471 - 2489	
Seeking Further Mechanisms in Tumors II	17:00	2490 - 2508	
Physics & Engineering			
Low-Field & Point-of-Care/Portable MRI I	08:15	1585 - 1603	
Low-Field & Point-of-Care/Portable MRI II	09:15	1760 - 1777	
Quantitative Imaging			
Relaxometry & Diffusion I	08:15	1604 - 1623	
New Quantitative Imaging Methods I	08:15	1624 - 1643	
New Quantitative Imaging Methods II	09:15	1778 - 1797	
Relaxometry & Diffusion II	09:15	1798 - 1817	
Neurodegeneration IV	14:45	2155 - 2174	
Tuesday, 06 June 2023			
Acquisition & Analysis			
fMRI Acquisition & Analysis I	08:15	2529 - 2548	
fMRI Acquisition & Analysis II	09:15	2705 - 2724	
Radiomics	13:30	2880 - 2898	
Perfusion, Blood Flow & Blood Volume I	13:30	2899 - 2918	
Deep Learning Image Reconstruction I	13:30	2919 - 2938	
Data Analysis & Processing I	13:30	2939 - 2958	
Perfusion, Blood Flow & Blood Volume II	14:30	3057 - 3075	
Reconstruction: Body & Cardiovascular	14:30	3076 - 3095	
Deep Learning Image Reconstruction II	14:30	3096 - 3115	
Data Analysis & Processing II	14:30	3116 - 3135	
Quality, Reproducibility & Harmony	15:45	3233 - 3252	
Artefacts	16:45	3409 - 3428	
Spectroscopy, MT, CEST	16:45	3429 - 3447	

DIGITAL POSTERS • EXHIBITION HALL (CONTINUED)

Body		
DWI Breast: Clinical Applications & Recent Advances	08:15	2549 - 2567
Cutting-Edge Breast Imaging	09:15	2725 - 2743
Benign Gynecological Disease & Placental Abnormalities	13:30	2959 - 2978
What's New in Liver Imaging	14:30	3136 - 3155
Gynecological Cancer: Diffusion & APT	15:45	3253 - 3271
Women's Cancer Imaging	16:45	3448 - 3467
Contrast Mechanisms		
ASL: Applications	08:15	2568 - 2587
Perfusion: Technical Developments	09:15	2744 - 2763
CEST I	13:30	2979 - 2998
CEST II	14:30	3156 - 3175
CEST & MT	15:45	3272 - 3290
Musculoskeletal		
Imaging of Spine & Neuromuscular Complex	08:15	2588 - 2607
Imaging of Non-Cartilaginous MSK Tissues	09:15	2764 - 2783
Neuro		
Inflammation Across Neurological Diseases I	08:15	2608 - 2625
Myelin & White Matter Integrity	08:15	2626 - 2645
Alzheimer's & Dementias I	08:15	2646 - 2665
Brain Connectivity in Health I	08:15	2666 - 2685
Advanced Imaging in White Matter	09:15	2784 - 2803
Alzheimer's & Dementias II	09:15	2804 - 2823
Multiple Sclerosis	09:15	2824 - 2842
Brain Connectivity in Disease II	09:15	2843 - 2862
Imaging Neurofluids: New Methods & Applications I	13:30	2999 - 3018
Connectivity & Tractography	13:30	3019 - 3037
Alzheimer's & Dementias III	13:30	3038 - 3056
Imaging Neurofluids: New Methods & Applications II	14:30	3176 - 3193
Morphology & Neuromelanin in Parkinson's Disease	14:30	3194 - 3212
Applications in Tumors	14:30	3213 - 3232
New Frontiers in Brain Imaging I	15:45	3291 - 3310
Imaging Aging, Dementia & Alzheimer's Disease I	15:45	3311 - 3330
Brain Connectivity in Disease I	15:45	3331 - 3350
Gray Matter I	15:45	3351 - 3370
Connectivity, Multiple Sclerosis & White Matter Degeneration	15:45	3371 - 3390
New Frontiers in Brain Imaging II	16:45	3468 - 3487
Brain Connectivity in Health II	16:45	3488 - 3507
Imaging Aging, Dementia & Alzheimer's Disease II	16:45	3508 - 3527
Inflammation Across Neurological Diseases II	16:45	3528 - 3544
Gray Matter II	16:45	3545 - 3564

DIGITAL POSTERS • EXHIBITION HALL (CONTINUED)

Physics & Engineering			
MR Safety I	08:15	2686 - 2704	
MR Safety II	09:15	2863 - 2879	
Quantitative Imaging			
Quantitative Imaging Beyond Relaxometry I	15:45	3391 - 3408	
Quantitative Imaging Beyond Relaxometry II	16:45	3565 - 3584	
Wednesday, 07 June 2023			
Acquisition & Analysis			
Segmentation I	08:15	3585 - 3604	
DTI & DWI I	08:15	3605 - 3624	
Segmentation II	09:15	3760 - 3779	
DTI & DWI II	09:15	3780 - 3799	
Magnetic Resonance Spectroscopy	13:30	3934 - 3953	
DTI & DWI III	13:30	3954 - 3973	
Hyperpolarization & Non-Proton	14:30	4091 - 4109	
Body			
Urinary Tract Imaging Updates I	08:15	3625 - 3643	
Urinary Tract Imaging Updates II	09:15	3800 - 3818	
Updates in Body Imaging I	13:30	3974 - 3993	
Updates in Body Imaging II	14:30	4110 - 4129	
Body: Miscellaneous I	15:45	4263 - 4282	
Body: Miscellaneous II	16:45	4435 - 4454	
Cardiovascular			
New Developments & Clinical Applications of Flow MRI I	08:15	3644 - 3662	
New Developments & Clinical Applications of Flow MRI II	09:15	3819 - 3837	
Parametric Mapping of the Heart I	13:30	3994 - 4013	
Parametric Mapping of the Heart II	14:30	4130 - 4148	
Advanced Cardiac Tissue Characterization & Applications of Novel Techniques I	15:45	4283 - 4302	
Advanced Cardiac Tissue Characterization & Applications of Novel Techniques II	16:45	4455 - 4474	
Contrast Mechanisms			
High- & Low-Field fMRI	08:15	3663 - 3680	
Spectroscopy	08:15	3681 - 3700	
fMRI: Acquisition, Analysis, Applications	09:15	3838 - 3854	
Spectroscopy: Deuterium	09:15	3855 - 3874	
Oxygenation & Preclinical fMRI	13:30	4014 - 4030	
Diffusion: Applications	14:30	4149 - 4166	
Magnetic Susceptibility: Methods & Applications	14:30	4167 - 4186	
Brain Microstructure I	15:45	4303 - 4322	
Hyperpolarized 13C MR	15:45	4323 - 4341	
Brain Microstructure II	16:45	4475 - 4494	
Hyperpolarized 129Xe MR	16:45	4495 - 4510	

DIGITAL POSTERS • EXHIBITION HALL (CONTINUED)

Machine Learning		
ML/AI for Acquisition & Reconstruction I	08:15	3701 - 3720
ML/AI for Acquisition & Reconstruction II	09:15	3875 - 3894
ML/AI for Recon & Super Resolution I	13:30	4031 - 4050
ML/AI for Recon & Super Resolution II	14:30	4187 - 4205
ML/AI for Segmentation & Registration I	15:45	4342 - 4361
ML/AI for Segmentation & Registration II	16:45	4511 - 4523
Musculoskeletal		
Qualitative Muscle Imaging	13:30	4051 - 4070
Quantitative Muscle Imaging	14:30	4206 - 4225
Imaging of the Articular Cartilage	15:45	4362 - 4381
Imaging of Bone & Marrow	16:45	4524 - 4541
Physics & Engineering		
Stretch, Rotate & Twist: New RF Coil Designs I	08:15	3721 - 3739
Stretch, Rotate & Twist: New RF Coil Designs II	09:15	3895 - 3913
Higher Field, Higher Resolution & Faster Imaging I	13:30	4071 - 4090
Higher Field, Higher Resolution & Faster Imaging II	14:30	4226 - 4244
New Approaches in RF Coils II	14:30	4245 - 4262
Device & Multimodal I	15:45	4382 - 4401
Progress & Challenges in RF Coils I	15:45	4402 - 4416
System Performance & Imperfections I	15:45	4417 - 4434
Device & Multimodal II	16:45	4542 - 4561
System Performance & Imperfections II	16:45	4562 - 4579
Progress & Challenges in RF Coils II	16:45	4580 - 4595
Preclinical		
The Bench: Preclinical Studies Throughout the Body	08:15	3740 - 3759
The Bench: Preclinical Studies Within the Brain	09:15	3914 - 3933
Thursday, 08 June 2023		
Acquisition & Analysis		
Signal Modeling	08:15	4596 - 4615
Image Reconstruction Methods I	08:15	4616 - 4634
Accelerating Acquisitions	08:15	4635 - 4654
Image Reconstruction Methods II	09:15	4771 - 4790
Radial Acquisition & Analysis Techniques	09:15	4791 - 4810
Advanced Image Reconstruction Techniques	13:45	4947 - 4966
Image Reconstruction: UTE & ZTE	14:45	5103 - 5122
Body		
Breathe In, Breathe Out & Hold Your Breath	08:15	4655 - 4674
Pipes & Tubes	09:15	4811 - 4829

DIGITAL POSTERS • EXHIBITION HALL (CONTINUED)

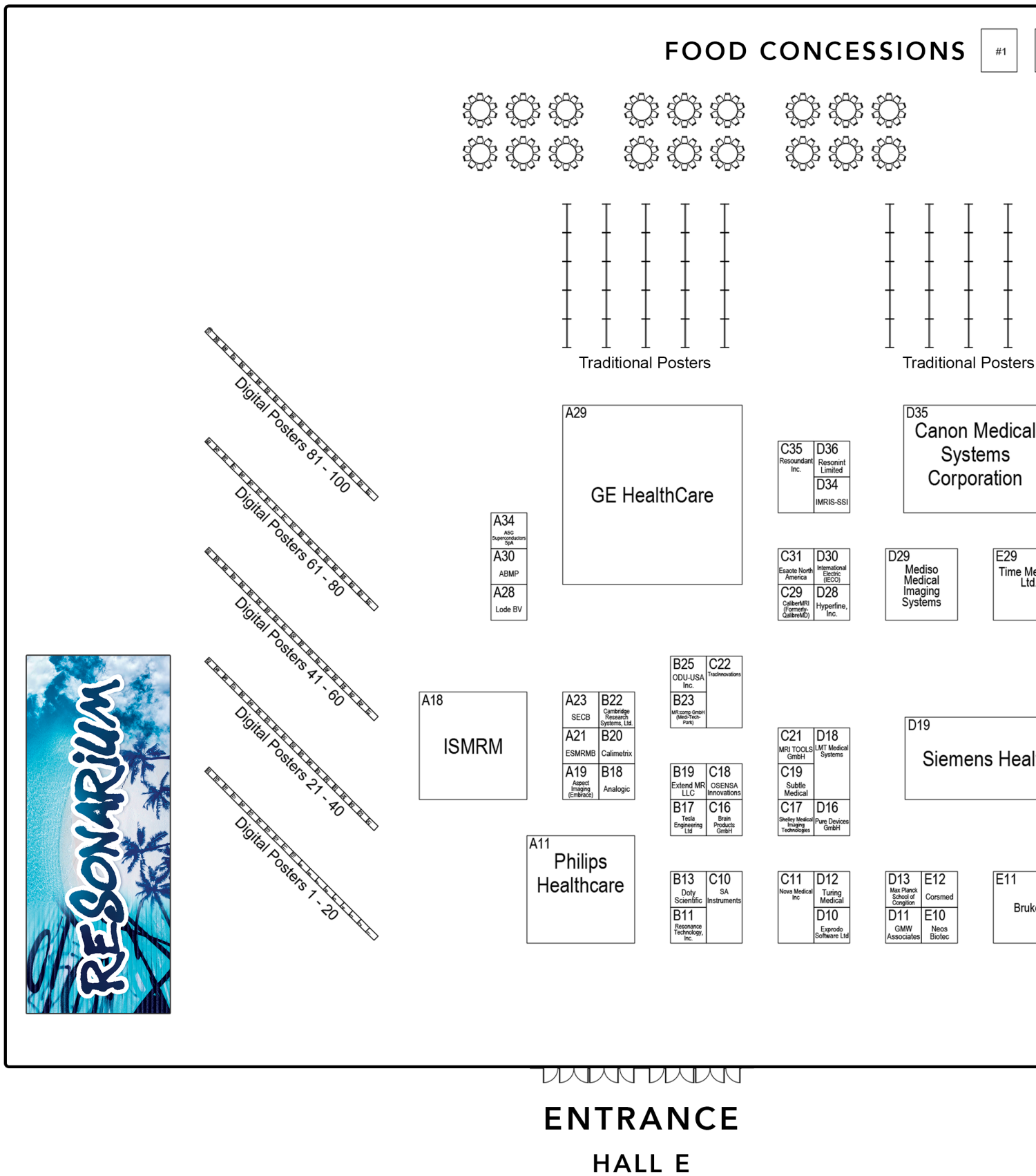
Cardiovascular			
Cardiac Function I	08:15	4675 - 4694	
Cardiomyopathy I	08:15	4695 - 4713	
Cardiomyopathy II	09:15	4830 - 4849	
Cardiac Function II	09:15	4850 - 4869	
Technical Solutions in Cardiovascular Imaging & Image Processing I	13:45	4967 - 4986	
Technical Solutions in Cardiovascular Imaging & Image Processing II	14:45	5123 - 5142	
Contrast Mechanisms			
X-Nuclei MR	08:15	4714 - 4731	
Contrast Agents	09:15	4870 - 4888	
Multicontrast MRI: Applications & Phantoms	09:15	4889 - 4906	
Thermometry	13:45	4987 - 5006	
Diffusion: Methods & Developments	13:45	5007 - 5025	
Elastography Throughout the Brain & Body	14:45	5143 - 5162	
Advanced Contrast Mechanisms: Diffusion & Electric Tissue Properties	14:45	5163 - 5178	
Machine Learning			
ML/AI for General Image Analysis & Post-Processing I	08:15	4732 - 4750	
ML/AI for General Image Analysis & Post-Processing II	09:15	4907 - 4926	
ML/AI for Data Synthesis, Generative Models & Quantitative MRI I	13:45	5026 - 5042	
ML/AI for Data Synthesis, Generative Models & Quantitative MRI II	14:45	5179 - 5198	
Neuro			
Advances in Psychoradiology	08:15	4751 - 4770	
Imaging Affective Disorders	09:15	4927 - 4946	
Imaging Psychiatric Disorders in Children & Adolescents	13:45	5043 - 5062	
Epilepsy	14:45	5199 - 5218	
Physics & Engineering			
New Approaches in RF Coils I	13:45	5063 - 5082	
Phantoms & Repeatability II	14:45	5219 - 5238	
Quantitative Imaging			
Phantoms & Repeatability I	13:45	5083 - 5102	

Young Investigator Awards Finalists

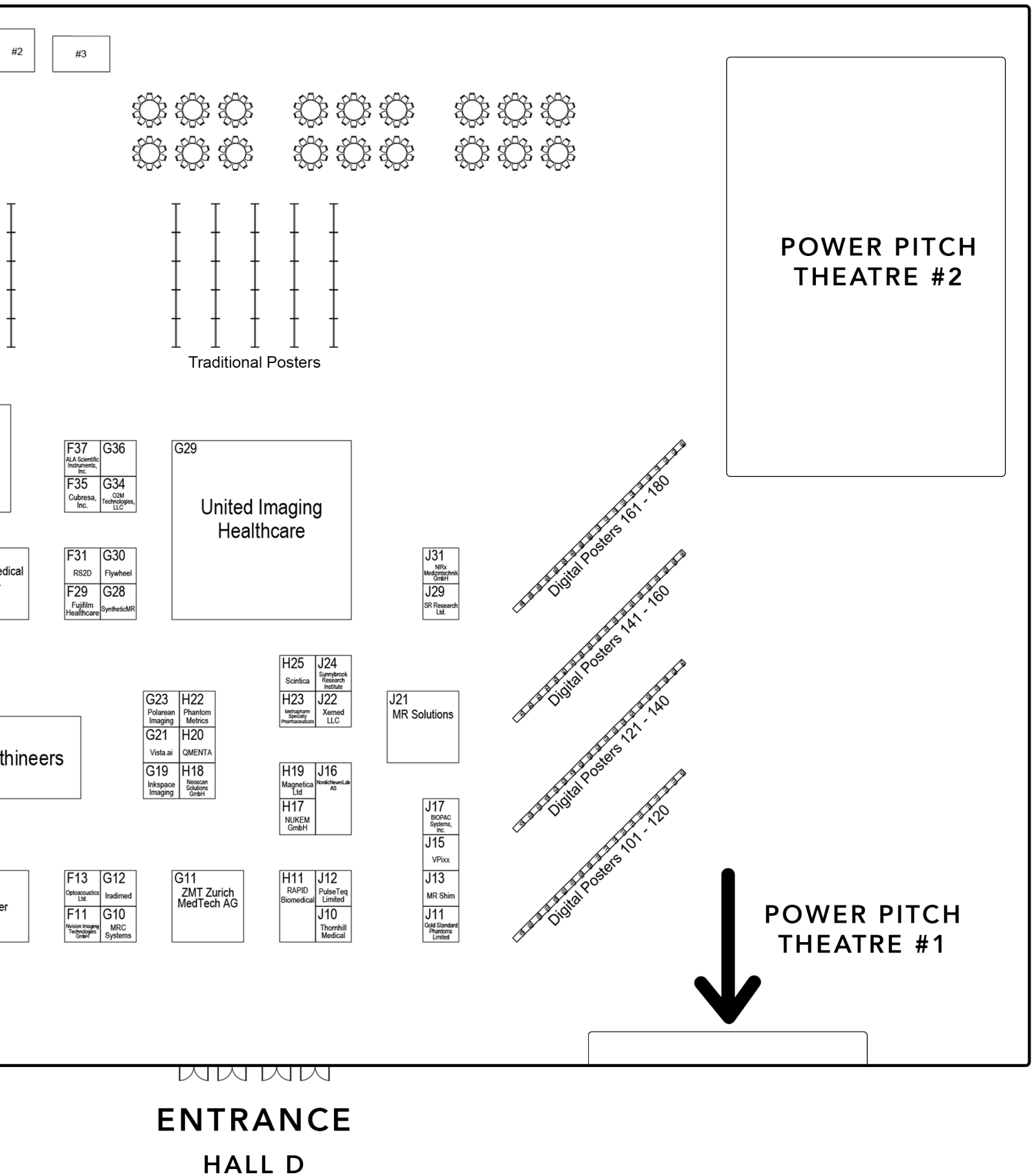
MONDAY, 05 JUNE 2023

AUTHOR	PROGRAM #	TITLE	PRESENTATION	TIME	TIME & ROOM
Rachel L. Eddy, Ph.D.	1	<i>Pulmonary MRI & Cluster Analysis Identify Novel Asthma Phenotypes</i>	Oral	08:15	701B
			Poster	13:45	Exhibition Hall - ISMRM Booth
Taylor Froelich, M.Sc.	2	<i>Fast Spin Echo Approach for Accelerated B1 Gradient-Based MRI</i>	Oral	08:30	701B
			Poster	14:00	Exhibition Hall - ISMRM Booth
Ruiqi Geng, M.Sc.	3	<i>Automated MR Image Prescription of the Liver Using Deep Learning: Development, Evaluation & Prospective Implementation</i>	Oral	08:45	701B
			Poster	14:15	Exhibition Hall - ISMRM Booth
Valerie Klein, Ph.D.	4	<i>Measurement of Magnetostimulation Thresholds in the Porcine Heart</i>	Oral	09:00	701B
			Poster	14:30	Exhibition Hall - ISMRM Booth
Philip Meng-en Lee, Ph.D.	5	<i>Whole-Abdomen Metabolic Imaging of Health Volunteers Using Hyperpolarized [1-13C] Pyruvate MRI</i>	Oral	09:15	701B
			Poster	14:45	Exhibition Hall - ISMRM Booth
Zengping Lin, M.Sc.	6	<i>Predicting the Onset of Ischemic Stroke with Fast High-Resolution 3D MR Spectroscopic Imaging</i>	Oral	09:30	701B
			Poster	15:00	Exhibition Hall - ISMRM Booth
Gian Franco Piredda, Ph.D.	7	<i>Submillimeter T1 Atlas for Subject-Specific Abnormality Detection at 7T</i>	Oral	09:45	701B
			Poster	15:15	Exhibition Hall - ISMRM Booth
Xingfeng Shao, Ph.D.	8	<i>Quantification of Blood-Brain Barrier Water Exchange & Permeability with Multi-Delay Diffusion-Weighted pCASL</i>	Oral	10:00	701B
			Poster	15:30	Exhibition Hall - ISMRM Booth

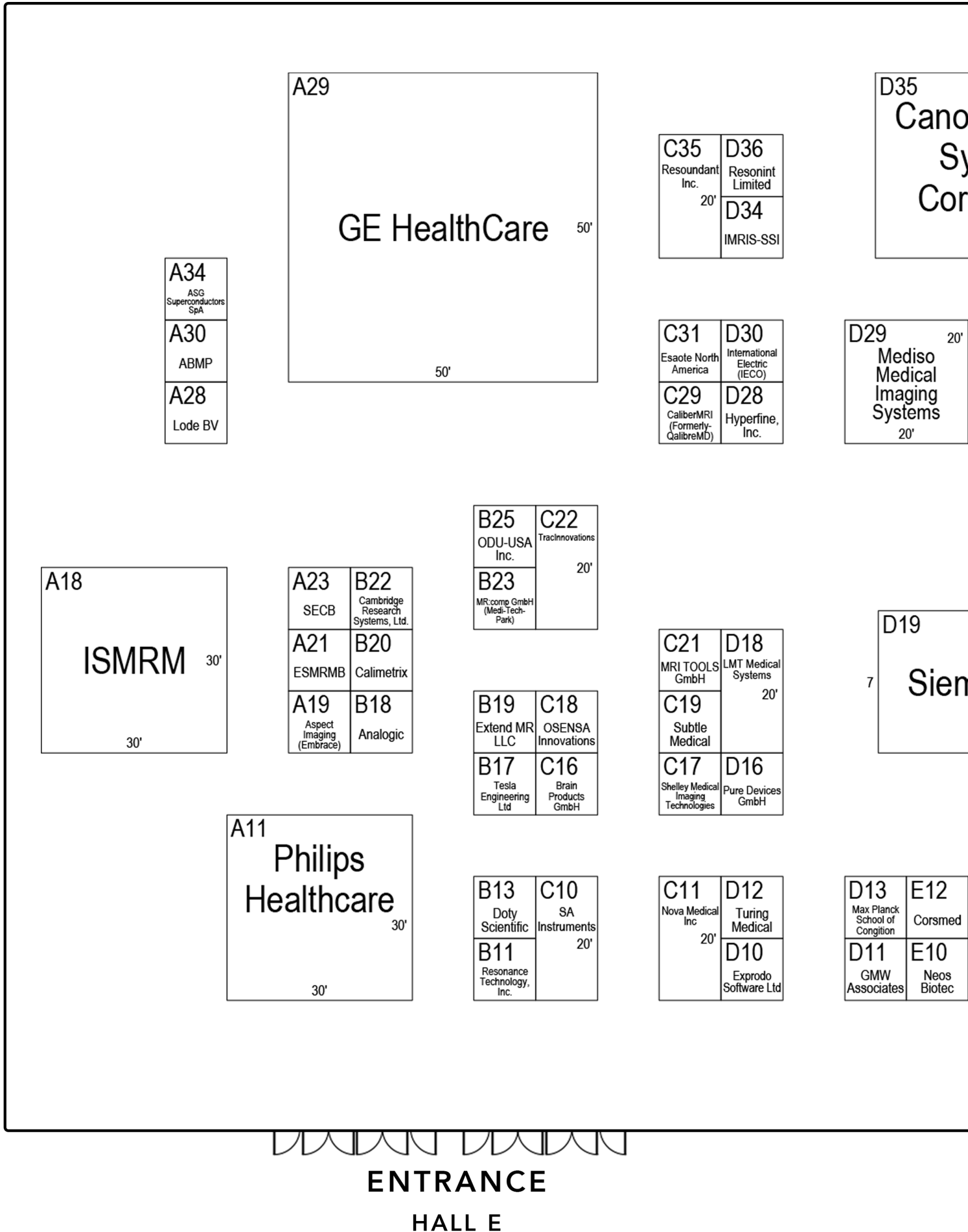
Exhibition Hall Map



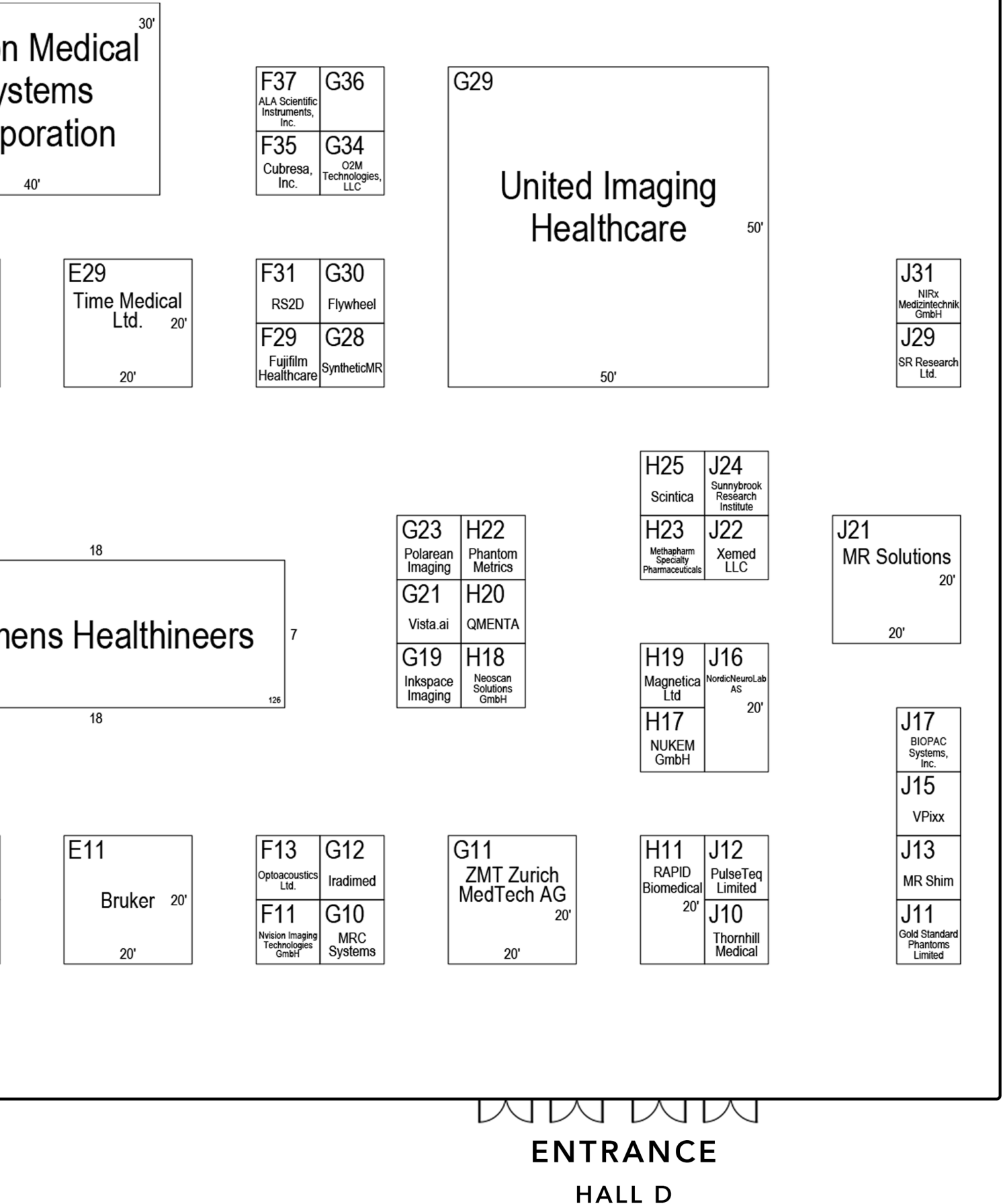
Exhibition Hall Map



Exhibitors Map



Exhibitors Map





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EXHIBITOR INFORMATION & BOOTH NUMBER

BOOTH A30

American Board of Medical Physics (ABMP)

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Telephone: +1 210 901 9052 • Email: info@abmpexam.com
www.abmpexam.com

The American Board of Medical Physics was established in 1987, with the mission of certifying medical physicists in traditional and non-traditional areas of medical physics practice. The ABMP has approximately 400 certified medical physicists on its registry. Currently, certificates are offered in MRI Physics, Medical Health Physics, and in the sub-specialty "MRI for Radiation Therapy."

The ABMP welcomes applications from candidates who have a graduate degree in medical physics or related subject, who meet clinical experience requirements, and who obtain the endorsements of a board-certified physicist and a board-certified physician. Certification is earned by successfully passing a multi-part sequence, consisting of written exams and oral exams. For the MRI exams, these exams are designed to determine the competence of the candidate in fundamental aspects of vari-

ous areas of science that are directly related to the use of magnetic resonance imaging and spectroscopy as a clinical diagnostic modality, adjunct to medical therapeutic regimens, and scientific research tool for studies on human beings.

Upon successful completion of the ABMP sequence, the candidate may be identified as a Diplomat of the American Board of Medical Physics.

BOOTH F37

ALA Scientific Instruments Inc.

60 Marine Street, Suite 1 • Farmingdale, New York 11735 USA
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<https://alascience.com/ala-science-products>

As manufacturers (fluidics, chambers, etc) and distributors (npi, Sutter, Narishige, TMC and Sensapex) of instruments for patch/cellular

electrophysiology, our scientists/engineers have decades of experience assembling systems and building custom setups. We focus

on your equipment needs so you can focus on your research.

BOOTH B18

Analogic

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For over 30 years, Analogic has been the leading OEM supplier of radio frequency (RF) and gradient power amplifiers. Our precision RF and gradient amplifiers power over half the magnetic resonance imaging systems worldwide.

Analogic MRI power solutions provide outstanding performance essential to high-quality MRI imaging. Our RF and gradient amplifiers provide benefits at every level, improving patient experience, advancing diagnostics for the clinicians, and improving total cost of owner-

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BOOTH A34

ASG Superconductors SpA

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Telephone: + 39 0106489111 • Email: info@as-g.it
www.asgsuperconductors.com

Improving everyday life and creating real value for the world of research and industry by designing and developing magnets, applications and innovative superconducting systems.

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ASG portfolio includes MROpenEVO, the only superconductive MRI with a "totally open" magnet design, that allows Multi-position imaging including advanced weight-bearing and functional studies, besides providing the highest comfort for patients.

EXHIBITOR INFORMATION & BOOTH NUMBER

BOOTH J17

EXHIBITOR
15+ Years

BIOPAC Systems Inc.

42 Aero Camino • Goleta, CA 93105, USA
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BIOPAC MRI-safe hardware solutions include amplifiers, transducers, gating systems, stimulus options, electrodes & leads, cables, and

more. These solutions can be combined with AcqKnowledge Software, which provides automated MR Data cleaning and scoring routines, to support a wide array of MR data recording and analysis applications.

BOOTH C16

EXHIBITOR
15+ Years

Brain Products GmbH

Zeppelinstrasse 7 • Gilching, Bavaria 82205 Germany
Telephone: +49 (0) 8105 733 84 0 • Email: sales@brainproducts.com
www.brainproducts.com

Brain Products EEG hard and software is the gold standard in combined EEG and fMRI research. Our MR compatible EEG amplifier, the BrainAmp MR plus, excels in the latest MR scanners (including ultra-high field). The BrainAmp MR plus is certified by all important scan-

ner manufacturers.

We also have exciting updates regarding the new R-Net MR, Carbon Wire Loops for the BrainCap MR and fMRI sequence guidelines. We look forward to meeting you at the ISMRM

where you can learn more or take the opportunity to discuss your upcoming research and challenges with our EEG-fMRI application specialist.

ISMRM BRONZE
CORPORATE
MEMBER



BOOTH E11

Bruker

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BOOTH C29

CaliberMRI, Inc.

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Telephone: + 1 720 828 7674 • Email: info@qmri.com
www.qmri.com

CaliberMRI (CMRI) is on a mission to standardize magnetic resonance imaging (MRI) to advance quantitative MR imaging (qMRI). We offer a fully-integrated MRI standardization platform including brain, breast, prostate, and custom phantoms, and companion automated quality control (QC) software, qCal-MR™. Our platform validates T1, T2, PD, and ADC

mapping techniques, assesses scanner performance over time, and offers known, standardized NIST-traceable biomarker mimics calibrated to a ground truth. Our platform has been developed in collaboration with professional organizations such as NIST, ISMRM, and RSNA/QIBA. New in 2022: QIBA Conformance Certification for the DWI profile. As the devel-

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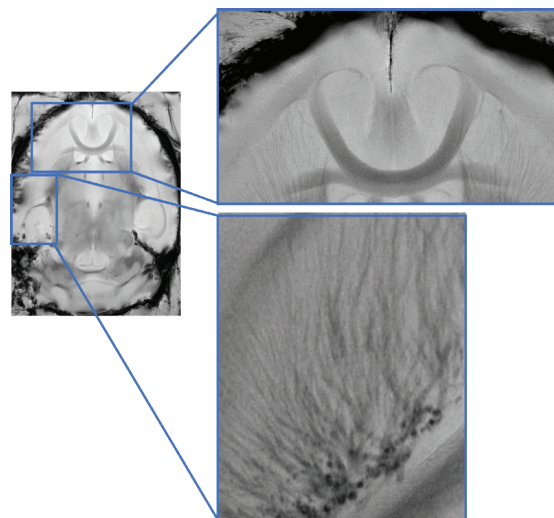
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Innovation with Integrity

BOOTH B20

Calimetrix

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At Calimetrix, we are dedicated to the development of advanced quantitative MRI phantoms that meet the needs of the MR clinical and research community. Building on over 25 years

of research experience, our mission is to build phantoms that facilitate clinical trials, quality assurance, and the development and testing of new quantitative imaging biomarkers. Based in

Madison, Wisconsin, Calimetrix was launched in 2016 by physicians and researchers from the University of Wisconsin-Madison.

BOOTH B22

Cambridge Research Systems

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Cambridge Research Systems delivers high quality MRI accessories with innovative new technologies to enhance fMRI and improve efficiency in MRI-guided clinical applications.

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BOLDfonic delivers high-fidelity auditory stimuli. Our electro-dynamic driver technology drives powerful speakers with an excellent frequency response across a wide dynamic range. Synchronous triggering and a fully-loaded ampli-

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LiveTrack AV eye tracker provides robust, real-time estimates of eye rotation, Direction of Gaze coordinates and pupil size. Close-to-the-eye imaging allows easy setup and fast calibration. Mounting solutions are available for all head coils, including new options for 7T fMRI.

ISMRM GOLD
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BOOTH D35



Canon Medical Systems Corporation

1385 Shimoishigami • Otawara-shi, Tochigi 324-8550 Japan
Email: yoshiko1.sugai@medical.canon
www.global.medical.canon

Canon Medical offers a full range of diagnostic medical imaging solutions including CT, MR, X-Ray, Ultrasound and Healthcare Informatics across the globe.

In line with our Made for Life philosophy, patients are at the heart of everything we do. Our mission is to provide medical professionals with solutions that support their efforts in

contributing to the health and wellbeing of patients worldwide.

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At Canon Medical we work hand in hand with our partners – our medical, academic and re-

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BOOTH E12

Corsmed

Birger Jarlgatan 57 • Stockholm 11356 Sweden
Telephone: +1 332-248-1371 • Email: info@corsmed.com
www.corsmed.com

The Corsmed Virtual MRI scanner allows assessing of the effectiveness of team training and its impact on patients call back and completion rates for their MRI examinations, all without impacting the daily activities and duties on the real scanners. Practice, experience and learning are the key values of our educational platform, together with simulating images by

utilizing a process used in real scanners. Thanks to the intelligent data processing implemented and the vendor neutral interface adopted, today it is possible to simulate any body part and scan procedure providing the users with a true 1:1 experience. Corsmed, based in Stockholm Sweden, is an innovative technology company backed with more than 8 years of research.

The leader in MRI simulations and named one of the most innovative Med Tech companies in Sweden & Europe. Corsmed now holds the "Gold Award" for winning, three years in a row, a place within the Ny Teknik 33-listan*, an annual list of 33 outstanding young innovation companies in Sweden that will change their industries.

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ISMRM 2023

03-08 June 2023
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Booth D35

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In the era of artificial intelligence, Canon is breaking down the traditional barriers of Magnetic Resonance. New levels of faster, clearer and simpler imaging has been reached in recent years, and Canon is at the forefront of going further than ever before. With intelligent MRI, what previously did not seem possible is now being exceeded. Seeing more is not enough, going faster is expected, outstanding patient experience is a given, automation has now arrived. At ISMRM 2023, Canon looks forward to demonstrating how meaningful innovation is driving us ever forward to break impossible in MRI. Please join our Gold Symposium on June 8 to learn more.

Thursday June 08 • 12:30-1:30pm

Plenary Hall, Metro Toronto Convention Center

Global Team of Teams

Hiroyuki Fujita, PhD

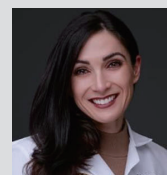
Chief Technology Officer, CT-MR Division, Canon Medical Systems Corporation



Clinical Advances in AI and Novel Multi-Parametric Approach

Dr. Marin McDonald

University of California San Diego, USA



Breakthrough in PIQE Resolution for Fine Structure Visualization

Dr. Julien Savatovski

Foundation Adolphe Rothschild Hospital, Paris, France



EXHIBITOR INFORMATION & BOOTH NUMBER

BOOTH F35

Cubresa

800-136 Market Ave. • Winnipeg, Manitoba, R3B 0P4 Canada
Telephone: +1 204 272 2409 • www.cubresa.com

Cubresa, based in Winnipeg, Canada, is a world leader in the design and development of preclinical and clinical PET inserts for MRI. Cu-

bresa products are being developed to enable researchers at leading universities, hospitals and pharmaceutical companies to visualize and

measure biochemical processes at the molecular level. www.cubresa.com

BOOTH B13



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www.dotynmr.com

Doty Scientific specializes in high-performance MR RF research coils for a wide range of applications, from low-field small-animal coils to high-field double-tuned quadrature segmented birdcages for human head - or larger! Superior sensitivity and B1 homogeneity are foremost in the optimization and design of Doty's volume coils and surface coils, as well as microscopy probes - which include gradients and RF.

Our small and mid-sized volume coils generally use Doty's patented simple-tune Litz and Litzcage RF coils for improved robustness with extraordinary homogeneity and unmatched S/N. These Litz small-animal-imaging platforms come in standard coil sizes at very attractive pricing. They allow maximum flexibility for animal handling, and can be single or dual frequency. Large high-field volume coils would

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BOOTH A19

Embrace by Aspect

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Embrace® Neonatal MRI is the only FDA-cleared MR designed specifically for neonatal care, inside the NICU. As a self-shielded system with a ZERO external fringe field, the Embrace

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BOOTH C31

Esaote North America

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Esaote North America, part of the international Esaote Group, is a world-class leader of dedicated MRI products committed to developing robust diagnostic solutions that are simple, user-friendly, and cost-effective. Through discovery and innovation, Esaote bridges the gap

between standard MRI design and customer needs, bringing new scanning capabilities to the forefront of in-house diagnostic imaging. Esaote's open-concept systems are the economical choice for hospitals, imaging centers, and in-office clinics, designed to resolve the

longstanding imaging and scheduling challenges healthcare providers face today. Esaote's headquarters are in Genoa, Italy, with an international presence in 80 countries.

EXHIBITOR INFORMATION & BOOTH NUMBER

BOOTH A21

European Society for Magnetic Resonance in Medicine and Biology - ESMRMB

Am Gestade 1 • 1010 Vienna, Austria
Telephone: +43 1 5334064-915 • Email: office@esmrm.org
www.esmrm.org

Founded in 1984 as a platform for clinicians, physicists, radiographers and basic scientists with an interest in the field of MR. Since then the community has become the European Forum for MR research and clinical practice.

Since 1994, our official society journal MAGMA (included in the membership) has become well-established in the field, with a remarkably high impact factor.

The ESMRMB runs several educational programmes for its membership: The School of MRI, which offers a variety of advanced clinical courses/webinars and eLearning courses, the Lectures on MR programme, which provides teaching courses for MR physicists and basic scientists, as well as the Hands-On MRI programme, designed for radiographers and physicians.

The ESMRMB is proud to be hosting its Annual Congress in Basel, Switzerland, 4-7 October 2023. For more information and registration see www.esmrm2023.org.

To learn more about our society or to become a member, please refer to our website www.esmrm.org or contact us directly at office@esmrm.org.

BOOTH D10

Exprodo Software

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Calpendo, from Exprodo Software, is an industry-leading Facility Management Software solution for research and scientific institutions. Since 2008 we have been working with customers worldwide to book instruments and other

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BOOTH B19

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Telephone: +1 408-832-0568 • Email: ernest.wong@extendmr.com
www.extendmr.com

Founded in 2014, ExtendMR is located at the heart of Silicon Valley in California, USA. We are committed to servicing Millipede coils and other pre-clinical RF coils for existing Agilent/Varian RF coils users. We also design and build custom-made RF coils for most pre-clinical systems.

In addition to the well-known Millipede coils, ExtendMR recently advanced Millipede technology by developing the Helmet coil optimized for rodent brain imaging. Multiple customers have already reported excellent imaging performance and the cost to own a Helmet coil can be as little as \$6,000. Please visit

our booth #B19 to learn more details.

BOOTH G30

Flywheel

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Telephone: +1 612 223 7359 • Email: info@flywheel.io
www.flywheel.io

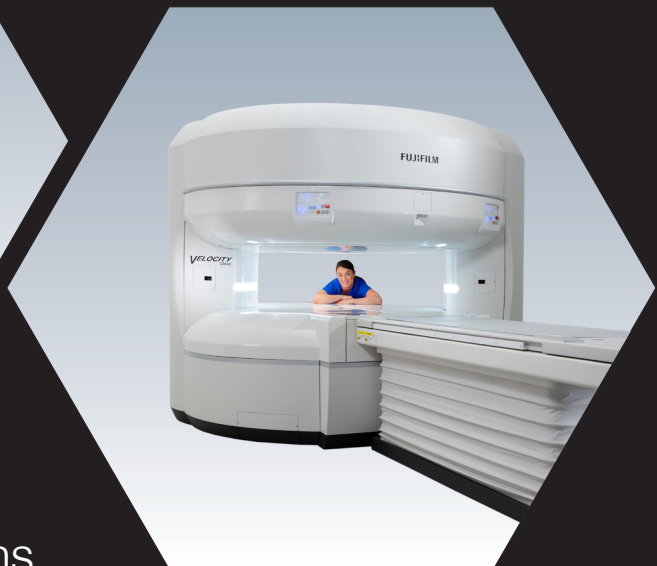
Flywheel is the revolutionary research data management platform powering healthcare innovation by accelerating collaboration, enabling machine learning, and streamlining the massive task of data aggregation, cura-

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FUJIFILM serves a range of industries including medical technology, biopharmaceuticals, electronic materials, industrial products, chemicals, graphic systems, optical devices, data storage and all aspects of photography.

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plete and integrated portfolio of diagnostic products and services, including MR, CT, X-ray, Mammography, Ultrasound, Endoscopy as well as Healthcare IT.

Today, Fujifilm is a first-choice supplier of open/permanent MRI and powerful high-field MRI systems, giving access to a new level in human centered design. Our range offers extraordinary patient comfort, combined with excellent cost of ownership and ease of use thanks to powerful automation features. With

a long tradition in MRI, we are a global leader in vertical magnetic field open MRI and we 'Never Stop' innovating in healthcare.

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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. Bartington Three-Component Fluxgate Magnetic Field Sensors with frequency response from dc to 3kHz for high

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EXHIBITOR INFORMATION & BOOTH NUMBER

BOOTH J11

Gold Standard Phantoms

Cuxton House, 1 Cuxton Road • Rochester, England ME2 2BT UK
Email: info@goldstandardphantoms.com • www.goldstandardphantoms.com

Gold Standard Phantoms (GSP) is an established spin-out company from University College London, operating within the medical imaging industry.

We develop, manufacture and sell specialised test objects, called phantoms, to test the per-

formances of MRI scanners and ensure that they operate in a standardised way.

Our devices are used by clinicians, medical physicists and radiographers around the world, empowering them to improve the quality of the MRI images they produce to diag-

nose illness, and investigate and research disease and new therapies.

Our mission is to enable medical imaging to move from a pattern recognition-based technique to a quantitative and reproducible scientific measurement methodology.

BOOTH D28

Hyperfine Inc.

351A New Whitfield St. • Guilford, CT 06437 USA
Telephone: +1 800-SWOOP-MR • Email: info@hyperfine.io
www.hyperfine.io

The mission of Hyperfine is to revolutionize patient care globally through transformational, accessible, clinically relevant diagnostic imaging, and data solutions. Hyperfine is the groundbreaking medical technology company that created Swoop, the world's first FDA-cleared portable magnetic resonance imaging (MRI) system capable of providing

neuroimaging at the point of care. Hyperfine scientists, engineers, and physicists developed the Swoop system out of a passion for redefining brain imaging methodology and how clinicians can apply accessible diagnostic imaging to patient care. Traditionally, access to costly, stationary, conventional MRI technology can be inconvenient or not available when

needed most. With the portable, ultra-low-field Swoop system, Hyperfine is redefining the neuroimaging workflow by bringing brain imaging to the patient's bedside. For more information, visit hyperfine.io.

BOOTH D34

IMRIS, Superconducting Systems

1230 Chaska Creek Way, Suite 100 • Chaska, MN 55318 USA
Telephone: +1 763-203-6300 • Email: sales@imris.com
www.imris.com

Superconducting Systems (SSI), an IMRIS company, designs and develops innovative cryogen-free superconducting magnets for medical and research applications. SSI collaborates with major scientific institutions to

demonstrate the viability and benefits of its cryogen-free systems and has pioneered the development of high-resolution, persistent mode, cryogen-free superconducting magnets. SSI is also a leader in the development

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BOOTH G19

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Telephone: +1 925-425-7410 • Email: info@inkspaceimaging.com
www.inkspaceimaging.com

InkSpace Imaging develops and manufactures featherlight, adaptable, and easy-to-set-up Magnetic Resonance Imaging (MRI) coils that provide radiologists with an accelerated imaging performance and extraordinary diagnostic images. Our 24-channel MR Coil is FDA-

cleared and built with proprietary printed technology optimized to increase scan acceleration, provide exceptional image resolution, and improve patient throughput and experience. InkSpace Imaging offers a developing portfolio of flexible, tailored feather-light MR

Coils for diagnostic imaging and multi-modality systems. Our multi-purpose body arrays are being used by leading radiologists throughout the US. Our office, manufacturing, and research and development facility headquarters are in Pleasanton, California.

BOOTH D30



International Electric Company (IECO)
Sahaajankatu 48 • Helsinki, Uusimma 00800 Finland
Telephone: +358 9759 4470 • 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 for demanding 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 stability.

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 per-

manent 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.

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

BOOTH G12

IRadimed Corporation
1025 Willa Springs Dr. • Winter Springs, FL 32708 USA
Telephone: +1 407-677-8022 • Email: Sales@Iradimed.com
www.iradimed.com

The value of Non-Magnetic patient care products may not be readily apparent until an adverse event occurs. IRadimed is the world's first and only provider of Non-Magnetic IV infusion pumps and Non-Magnetic multi-parameter patient monitors designed specifically for MRI use. Critical patients can now get con-

nected to the IRadimed MRI patient monitor and IRadimed MRI Infusion Pump at their ICU bedside, anesthesia induction room, or MRI table. The monitor and pump easily attach to the patient's bed, allowing a single staff member to transport the patient to MRI. Having the patient arrive already connected to their

MRI patient care devices eliminates projectile risks, reduces operating costs, and introduces the same patient bedside practices to the MRI that are common throughout the rest of the hospital. Please visit us at www.IRadimed.com for more information. [Nasdaq: IRMD]

BOOTH A18

ISMRM | ISMRT
One Concord Center, 2300 Clayton Road, Suite 620 • Concord, CA 94520 USA
Telephone: +1 510 841 1899 • Email: info@ismrm.org
www.ismrm.org

The International Society for Magnetic Resonance in Medicine (ISMRM) is the foremost international, interdisciplinary community promoting discovery, innovation and clinical translation, as well as providing education, in the field of magnetic resonance. ISMRM membership is comprised of 9,000+ professionals from over 60 countries, including clinicians, physicists, engineers, biochemists and technologists/radiographers from academia,

private practice, regulatory and governmental agencies and industry. ISMRM organizes the largest annual meeting dedicated to magnetic resonance, other major educational and scientific workshops, as well as publishes two journals – MRM for basic science and JMRI for clinical science. The International Society for MR Radiographers & Technologists (ISMRT), a section of the ISMRM, provides an international forum for education, information and

research in magnetic resonance for radiographers and technologists throughout the world. The SMRT was established by technologists, clinicians and scientists of the ISMRM as a forum for radiographers and technologists to share their expertise and educational resources, with a common goal of improving healthcare for people worldwide.

BOOTH D18



LMT Medical Systems
Maria-Goeppert-Str. 5 • Luebeck, SH 23562 Germany
Telephone: +494 5158 0980 • Email: info@lmt-medicalsystems.com
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 System nomag®IC ADVANCED and miscellaneous multi-channel RF-coils for

20 years. With the nomag®IC ADVANCED, MR images and premature babies 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.

EXHIBITOR INFORMATION & BOOTH NUMBER

BOOTH A28

Lode B.V.

Zernikepark 16 • Groningen, Groningen 9747 AN Netherlands
Telephone: +31 50 5712811 • Email: ask@lode.nl
www.lode.nl

Ever since Freerk Lode manufactured the first electro-magnetic bicycle ergometer in 1952, accuracy, reliability and durability have been fundamental for further developments. Having started years ago in the market of cardiology and pulmonary function, Lode BV has become a specialist in the complete spectrum

of medical ergometry. Lode is world renowned as a manufacturer of high quality ergometers and the Lode brand stands for accuracy, durability and ergonomic design. The Lode product range varies from bicycle ergometers and treadmills to recumbent, arm and supine ergometers and ergometry software. Long-

term experience in manufacturing medical equipment and continuous development to meet the changing requirements of the market, make Lode a flexible and reliable partner. Together we can transform your specific ideas and wishes into custom-made products.

BOOTH H19

Magnetica Ltd

115 Frederick St. Unit 4 • Northgate, Queensland 4013 Australia
Telephone: +61 (0) 7 3188 5445 • Email: enquiries@magnetica.com
www.magnetica.com

Magnetica™ is a niche MRI System Provider in global clinical and research markets.

Created after a merger between Magnetica (AU), Scientific Magnetica (UK) and Tecmag (US) in early 2021, we are enabling high quality imaging close to the patient point-of-care.

Our pedigree in the supply of custom superconducting magnets, gradient coils, RF coils and spectrometers now enables us to offer complete MRI systems.

Magnetica designs and develops compact 3T MRI systems for musculoskeletal extremity and other dedicated imaging applications. We are

unlocking opportunities for clinical diagnostic imaging in locations traditionally inaccessible to high field systems.

We develop and supply MRI systems that enhance imaging capability, increase workflow efficiency, and provide greater patient comfort.

BOOTH D13

Max Planck School of Cognition

Stephanstr 1A • 04103 Leipzig, Saxony Germany
Telephone: +49 341 99402685 • Email: cognition@maxplanckschools.de
www.cognition.maxplanckschools.org/en

The doctoral program at the Max Planck School of Cognition offers exceedingly bright students a superior grasp of the different methods and approaches used in the rapidly evolving field of Cognition.

The School is comprised of an outstanding and world-renowned cluster of faculty researchers from diverse scientific backgrounds but with overlapping research interests. The researchers come from Max Planck Insti-

tutes, universities, Helmholtz Association and Fraunhofer Society. The program consists of an orientation year (basic courses, lab rotations) followed by three years of research for the doctorate and is fully financed.

BOOTH D29

Mediso Medical Imaging Systems Ltd.

3 Laborc Street • Budapest 1037 Hungary
Telephone: +36 1 399 3030 • Email: info@mediso.com
www.mediso.com

We are a dynamic supplier of nuclear medicine and modern hybrid imaging techniques to the health care and medical research institutions of the world.

Mediso is active in nuclear medicine with a profile of development, manufacturing, selling and servicing molecular imaging multi-modality devices. It offers complete solutions from hardware design to evaluation and quantification software for clinical patient care and

scientific research.

With a 30-year expertise, 1,500+ clinical cameras, it is within the leaders in clinical patient care. Besides a unique triple modality clinical SPECT-CT-PET hybrid system, Mediso launched the new AnyScan® TRIO family with a triple head SPECT detector design and dedicated multi-pinhole collimation technology.

Mediso has a leader position in the preclinical nuclear imaging market with 300+ com-

missioned preclinical cameras around the world. Beyond the market leading nanoScan® PET/CT and SPECT/CT, Mediso launched the world's first integrated PET/MRI and SPECT/MRI systems. 3T and 7T cryogen-free magnets and PET insert have also been added to the product line, resulting in the largest install base of integrated PET/MRI systems.

Products are sold directly or through distribution network in 100+ countries worldwide.

From the minds that
brought you AIR™ Recon DL

Life-speed imaging

Set the pace for innovation in MR
with deep learning.

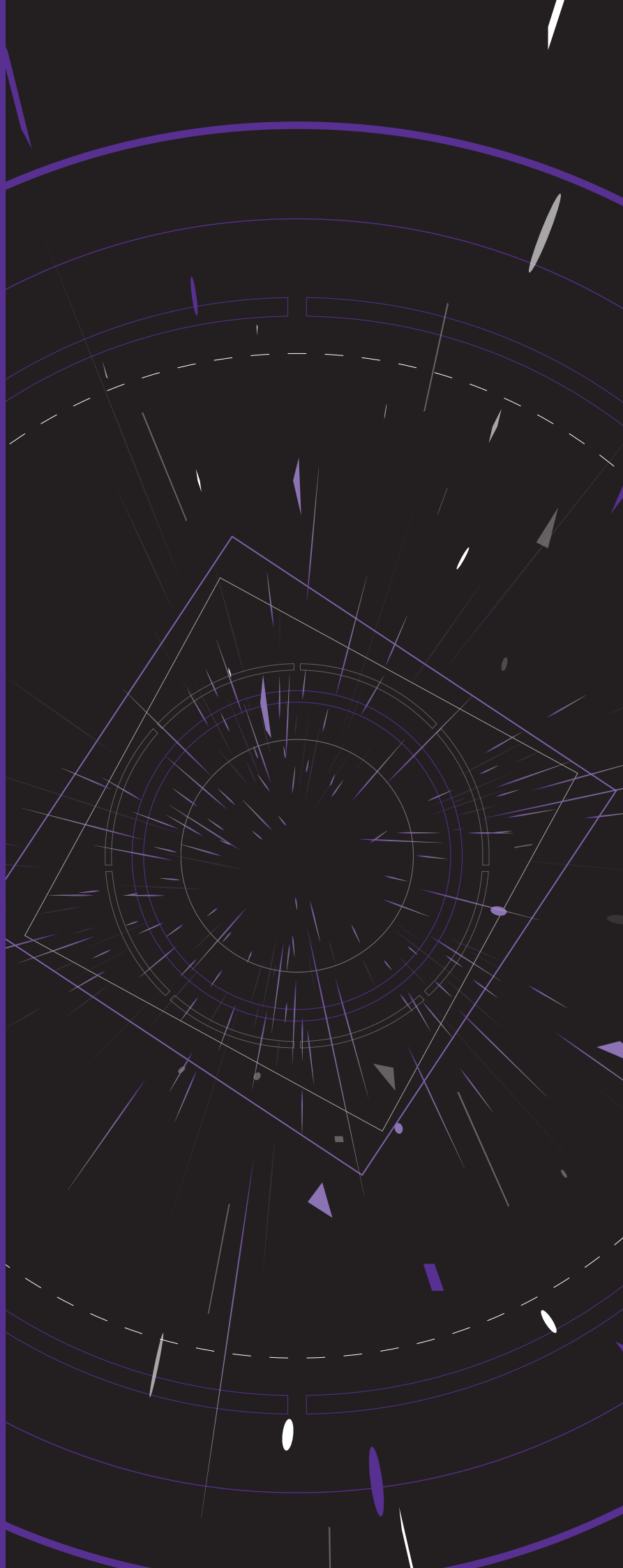
GE HealthCare has propelled the world of MR forward, and we don't plan on stopping. With transformative innovations, we're on a mission to keep breaking barriers in MR. Explore how deep learning can help you streamline workflows, ease staff workloads, and elevate patient care to a standard beyond exceptional.



Don't miss the UNMISSABLE
See it at ISMRM,
booth A29



GE HealthCare



EXHIBITOR INFORMATION & BOOTH NUMBER

BOOTH B23

Medi-Tech-Park (MR:comp GmbH)

Buschgrundstrasse 23 • Gelsenkirchen, NRW 45894 Germany
Telephone: +49 (0)209 149 77 30 0 • Email: info@medi-tech-park.com
www.mtp.mrcomp.com

The Medi-Tech-Park has been the innovative campus that unites established companies and partners which are specialized in the field of medical engineering, especially MR

safety and MR compatibility. The focus and key competence fields are testing services for MR safety and compatibility, R&D design support for MR products, research and education

services as well as distribution of MR Safe & Conditional products.

BOOTH H23

Methapharm Specialty Pharmaceuticals

81 Sinclair Blvd • Brantford, Ontario N3S 7X6 Canada
Telephone: +1 800-287-7686 • Email: sales@methapharm.com
www.methapharm.com

Methapharm Specialty Pharmaceuticals is proud to bring quality products to the Cana-

dian market. We strive to partner with companies around the world to bring the safest,

most efficacious treatments or diagnostic aids to hospitals across the country.

BOOTH J13

MR Shim

Burkhardt+Weber Str. 59 • Reutlingen 72760 Germany
Telephone: +49 0 159 01019 828 • Email: info@mrshim.de
www.mrshim.de

MR Shim GmbH is a medical device manufacturing company focused on magnetic field homogeneity for MRI applications. Our products are made with the principle that medical devices should:

- Be intuitive and easy-to-use,
- Be robust and safe,
- And bring value to the user.

During many years of research in MRI, the founders saw that the potential of MRI machines could not be fully realised with poor magnetic field homogeneity. From this experience, the company MR Shim was founded. With our end-to-end B0 shimming solutions, customers can achieve artifact-free MR imaging and spectroscopy. Our products are compatible with all field strengths, all MRI vendors,

both animal and human applications, and for different body applications (e.g. neuro, abdominal, etc.). We improve magnetic field stability using arrays of small, local shim coils. Our digital shim amplifiers can be used for real-time updating and field correction. We are constantly improving our products with the latest state-of-the-art technologies.

BOOTH J21



MR Solutions, Ltd

Ashbourne House • Old Portsmouth Road • Guildford, Surrey GU3 1LR UK
Telephone: +44 1482 906305 • Email: information@mrsolutions.com
www.mrsolutions.com

MR SOLUTIONS GROUP develops and manufactures innovative MR, CT, PET and SPECT imaging solutions. All scanners are interchangeable between each other for multi-modality imaging.

The company is the worldwide leader in high-field cryogen-free MR and delivers systems up to 9.4T with a bore size up to 42 cm. This technology has exclusive features such as rotating the system to 90° and to change the field within few minutes. It doesn't require quench

pipes and heavy site building therefore the installation cost is extremely low.

PET/MR imaging is possible up to 9.4T simultaneously. SPECT can be combined with PET/MR for a tri-modality imaging scanner. PET and SPECT scanners are based on our proprietary CLIP-ON technology. They are easily removable from the MR in minutes, and can be plugged straight onto the CT. Several models of PET/SPECT/CT's are available: Benchtop, high resolution, and very

large bore for 12 kg animals.

MR SOLUTIONS can refurbish and enhance all components from any MR.

MR Solutions holds the prestigious Queen's awards, the innovation award from the Institute of Physics and is the winner in the global R&D 100 awards.

MR Solutions has offices and support staff all across the world.

EXHIBITOR INFORMATION & BOOTH NUMBER

BOOTH G10

MRC Systems GmbH

Hans-Bunte-Str. 8-10 • Heidelberg, BW 69123 Germany
Telephone: +49 (0) 6221 13 80 300 • Email: info@mrc-systems.de
www.mrc-systems.de

MRC Systems GmbH from Heidelberg, Germany, presents its MRI compatible video cameras, eye-trackers and motion tracking solutions.

Our cameras are very compact, flexible and easy to install. They are used in various applications like face and hand monitoring, observation of children during scans, etc.

For eye-tracking we offer monocular and binocular versions and a new compact solution for 7T scanners. For motion tracking we have a modular system with hardware and software for marker-based mono and stereo tracking. The modules can be flexibly integrated into specific applications.

Our cameras are in the market since more than 20 years. They are used whenever the video recording or tracking of a subject, an animal or a device are needed. We have different models which are used in scanners with field strengths of up to 11.7T. We also have various camera mounts as well as light sources and support a wide variety of applications.

BOOTH C21

MRI.TOOLS GmbH

Robert-Rössle-Strasse 10 • Berlin 13125 Germany
Telephone: ++49 30 9489 2582 • Email: info@mrtools.de
www.mrtools.de

MRI.TOOLS GmbH is a competent partner that develops and delivers solutions for clinical and preclinical imaging sciences applications. The key mission of MRI.TOOLS GmbH is to help you achieve your basic research and clinical science goals. MRI.TOOLS's primary focus is the development, sale, and maintenance of innovative hardware and novel technology for MRI. Our product portfolio encompasses radiofrequency (RF) coils tailored for a broad spectrum of specific applications ranging from head to toe with a focus on high field

and ultrahigh field MR. We also offer devices for precise cardiac gating of imaging, as well as ancillary hardware and tools that enhance your research. MRI.TOOLS is also very proud to offer services such as electromagnetic field simulations, testing and validation of medical devices for clinical research. We also support public-private partnerships and research programs.

Examples from our portfolio:

- RF coils for clinical and preclinical MRI – we provide solutions for your applications encompassing all field strengths for human and animal imaging. We design RF coils which suit your requirements.
- EasyACT – triggering/gating device for medical imaging - this will enhance your workflow for cardiac triggering and gating of MRI.
- MRI Accessories – useful customer tuned tools to enhance your research.

BOOTH E10

Neos Biotec

Sancho el Fuerte, 29 • Pamplona, Navarra 31007 Spain
Telephone: +34 607 431 450 • Email: info@neosbiotec.com
www.neosbiotec.com

Neos Biotec is the MRI coil supplier for your research. With more than a decade of solid presence in the market, Neos Biotec is proud to provide customized RF coil designs to suit the most demanding preclinical imaging and spectroscopy applications.

Neos Biotec focuses on excellence, not only in the performance and quality of their products, but also in quick and reliable delivery times

and in customer support throughout the entire MR cycle (from experiment design to after-sales service).

We kindly invite you to visit our booth to show you the details of our latest coil developments:

- Open coils for mouse and rat brain, the perfect solution for MRI + optogenetics studies.

- X-nuclei coilsets with separated transmit and receive paths, for optimum SNR and highest flexibility.
- Whole-body volumetric array for mice: outstanding SNR with uniform sensitivity throughout the entire mouse body.

We will also be very happy to discuss your existing or future coil needs.

BOOTH H18

Neoscan Solutions GmbH

Joseph-von-Fraunhofer-Strasse 6 • Magdeburg, Saxony-Anhalt 39106 Germany
Telephone: +49 391 5639 8540 • Email: info@neoscan-solutions.com
www.neoscan-solutions.com

We are a medical technology company located at the science port in Magdeburg. We develop solutions in the field of MRI. We are an international and interdisciplinary team and work on topics that we find very exciting: MRI is the imaging modality that provides the best

soft tissue contrast non-invasively and we are determined that more patients will have access to it.

Our first project is an MRI system designed for use in neonatology and pediatrics. Newborns

and infants up to the age of 2 years can be examined. Providing the youngest patients easy access to radiation-free imaging is revolutionizing the diagnostic capabilities of pediatric radiology.

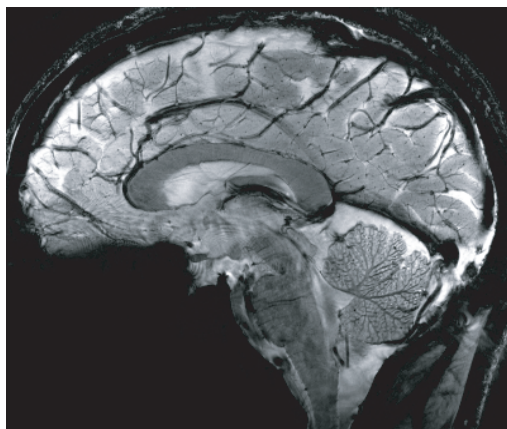
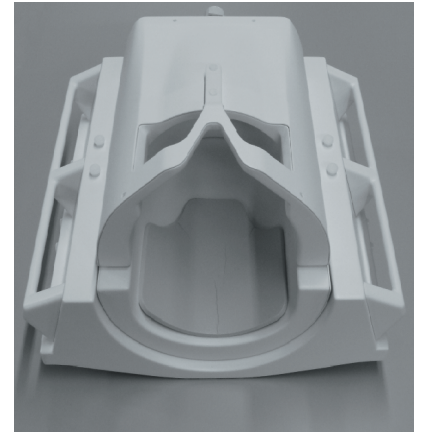
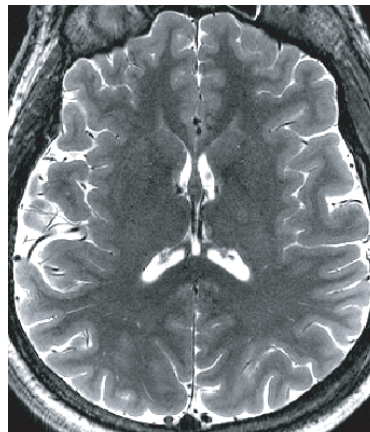


Nova Medical, Inc.

*Featuring our latest product line for
High Field Neuroimaging*

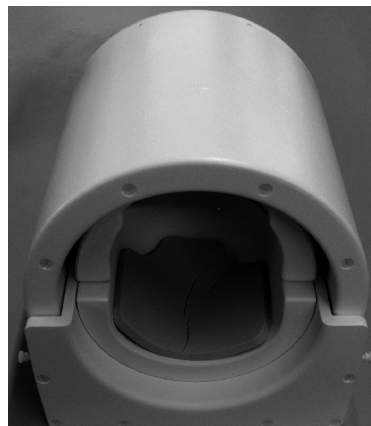
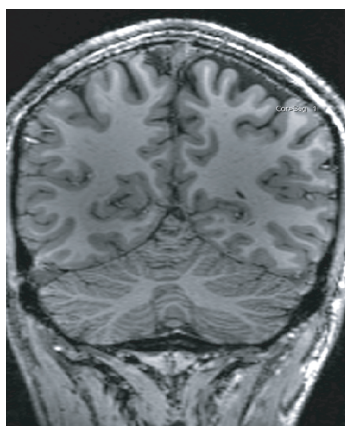
3T 32CH Head Coil

- CE & FDA 510k Approved
- Outstanding sensitivity
- Optimized for highly accelerated imaging in any plane
- Open front for visual stimuli presentation
- Ideal for fMRI, DTI, spectroscopy and hi-res anatomic imaging



7T 1Tx32Rx Head Coil

- CE & FDA 510k Approved
- High Efficiency Local TX
- Superb cortical and central brain SNR
- Multi-plane acceleration
- Mirror for rear-view projection



7T 8TX32RX Head Coil

- Parallel Transmit with eight fully independent TX channels
- CP Efficiency similar to Nova 1TX
- High performance 32RX for best SNR and parallel imaging capability
- B1 Field correction optimizes 7T image contrast and sensitivity
- Available on all platforms

BOOTH J31

NIRx Medizintechnik GmbH

Gustav-Meyer-Allee 25 • Berlin, Berlin 13355 Germany
 Telephone: +49 308 1453 5990 • Email: consulting@nirx.net
 www.nirx.net

NIRx Medizintechnik GmbH is a leading provider of comprehensive solutions for functional near-infrared spectroscopy (fNIRS) research. Our non-invasive and user-friendly fNIRS technology enables the measurement of neural activity in the cortex and large-scale cortical networks, providing insights into the neural mechanisms underlying perception and cognition.

Our complete range of research solutions includes a versatile multimodal hardware platform, advanced online and offline analysis software, expert technical and scientific support, and comprehensive training programs. We are dedicated to supporting fNIRS researchers through our offices in Orlando, New York, and Berlin, Germany.

Whether you're investigating changes in neural activity during development, researching disorders and their treatments, or exploring new applications in neuroscience, NIRx has the expertise and solutions to help you achieve your research goals.

BOOTH J16



NordicNeuroLab

Mollendalsveien 1 • Bergen, Vestland 5009 Norway
 Telephone: +47 55 70 70 95 • www.nordicneurolab.com

With more than 2000 installations in over 70 countries and solid partnerships with the biggest MR scanner manufacturers, we continue to develop fMRI as a clinical tool for precision

medicine as well as expanding into related segments such as patient entertainment and in-room viewing for interventional purposes.

We are committed to providing the highest quality products and services worldwide.

ISMRM ASSOCIATE
CORPORATE
MEMBER

BOOTH C11



Nova Medical, Inc.

150 West Street, Suite 201 • Wilmington MA 01887 USA
 Telephone: +1 978 988 5553 • mail: info@novamedical.com
 www.novamedical.com

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

products include multi-channel whole brain arrays for 3T and 7T, volume transmit solutions for 7T, and our eight channel transmit, thirty-two channel receive system for brain imaging

at 7T. Please visit our booth and see our latest offerings.

BOOTH H17

Nukem Isotopes GmbH

Rodenbacher Strasse 47 • 63755 Alzenau, Bavaria Germany
 Telephone: +49 6023 9474 800 • Email: info@nukemisotopes.de
 www.nukem-isotopes.com

NUKEM Isotopes GmbH offers and markets Oxygen-17, Xenon-129 and Nitrogen-15 products for use in MRI as well as Oxygen-18 for use in PET.

- Oxygen-17 is the only non-radioactive isotope to measure oxygen consumption and metabolism in real-time by using MRI systems for diagnostical application and medical research and provides a breakthrough of Magnetic Resonance Imaging using standard clinical MRI scanners.
- Oxygen-17 is available in the form of gas and water with different enrichments up to 90 at.%.
 - Xenon-129 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 the form of gas could have a potential as lung imaging agent especially in high field MRI scanners due to its similar behaviour to air. Additionally, Nitrogen15 is available in the form of Ammonium salts and Nitrates.
 - Oxygen-18 in the form of water is used to create tailored organochemical compounds labelled with the radio isotope 18F (for example, 2-fluoro-2-deoxy glucose [18FDG]). These are used for Positron Emission Tomography (PET), the most common cancer diagnostic technique

EXHIBITOR INFORMATION & BOOTH NUMBER

BOOTH F11

NVision Imaging Technologies GmbH

Albert-Einstein-Allee 11 • 89081 Ulm, Baden-Württemberg, Germany
Email: info@nvision-imaging.com
www.nvision-imaging.com

NVision is enabling Hyperpolarized (HP) MRI at scale. We are building the first scalable pre-clinical and clinical polarizers for widespread use (adding metabolic-imaging capability to any standard MRI). By harnessing quantum mechanical phenomenon we are imparting spin orientation to the nuclei of carbon atoms

of molecules natural to the body. This makes metabolites, such as pyruvate, visible to MRI and enables visualization of the metabolic phenotype of tumors and other pathologies. Future translation of hyperpolarized MRI agents to the clinic has the potential to significantly improve the accuracy of MRI in assess-

ing tumor aggressiveness (risk) as well as to offer a first of its kind method for early prediction of treatment efficacy (in matter of days). NVision technique is orders of magnitude more effective and cheaper than competing polarization methods and unlike PET/CT does not involve ionizing radiation.

BOOTH G34

O2M Technologies, LLC

2201 W Campbell Park Dr. • Chicago, IL 60612 USA
Telephone: +1 773-910-8533 • Email: info@oxygenimaging.com
www.oxygenimaging.com

O2M Technologies ("O2M") is a Chicago-based biotech company and an American manufacturer of preclinical pulse electron paramagnetic oxygen imaging (EPROI or eMRI) instrument, JIVA-25™. JIVA-25™ is suitable for in vitro and small animal in vivo oxygen imaging measurements. JIVA-25™ uses trityl-OX071-based EPROI technology to generate three-dimensional oxygen maps with high spatial, temporal, and pO2 resolution. O2M synthesizes OX071 for EPROI applica-

tions and OX063 for 13C hyperpolarized MRI applications. O2M also collaborates with leading academic and industry partners to perform oxygen imaging and biological experiments using its "Oxygen Measurement Core" facility located near downtown Chicago. Oxygen is a fundamental physiologic parameter with significance to the diagnosis and treatment to many pathologies. Three-dimensional oxygen maps are essential to understand biology, advanced therapies, and drug develop-

ment in cancer, T1D, regenerative medicine, and other biomedical fields. The applications of oxygen imaging include oxygen-guided radiation treatment, anti-angiogenesis drug development, immunotherapy, chemotherapy assessment, artificial tissue graft viability assessment, and assessment of cell replacement therapy devices, etc. Reach out to us with your questions and requests at info@oxygenimaging.com. Check out our website www.oxygenimaging.com for more information.

BOOTH B25

ODU-USA Inc.

300 Camarillo Ranch Road, Suite A • Camarillo, CA 93010 USA
Telephone: +1 805 484 0540 • Email: sales@odu-usa.com
www.odu-connectors.com/us

The ODU Group is one of the world's leading suppliers of connector systems, employing 2,500 people around the world. In addition to its company headquarters in Muehlhof a. Inn (Germany), ODU also has an international distribution network, production and product development sites in Sibiu/Romania, Shanghai/China, Tijuana/Mexico and Camarillo/USA.

ODU combines all relevant areas of expertise and key technologies including design and development, machine tooling and special machine construction, injection, stamping, turning, surface technology, assembly and cable assembly. The ODU Group sells its products globally through its sales offices in China, Denmark, France, Germany, Hong Kong, Italy,

Japan, Korea, Romania, Sweden, UK and the US, as well as through numerous international sales partners. ODU connectors ensure a reliable transmission of power, signals, data and media for a variety of demanding applications including medical technology, military and security, automotive, industrial electronics, and test and measurement.

BOOTH F13

Optoacoustics Ltd.

Hanotea 17 • Mazor, 73160 Israel

Telephone: +972 3 634 4488 • Email: info@optoacoustics.comwww.optoacoustics.com

Optoacoustics is the leader in high performance optical fiber-based sound and measurement solutions for fMRI, interventional and clinical MRI and MEG. Optoacoustics MR-safe microphones and headphones provide crisp, clear two-way communications.

Our FOMRI-III+ noise cancelling microphone is today's standard for recording high quality speech in fMRI, providing hands-off, completely automatic speech synchronization and recording for any TTL or stimulus.

Our ultra-slim OptoACTIVE active noise cancelling headphones actively and passively reduce over 95% of EPI gradient noise and deliver high fidelity audio. Designed for today's 32- and 64-channel head coils, OptoACTIVE enables MR research that would not otherwise be possible.

Our pioneering IMROC IR Wireless is the most adopted DSP-based adaptive noise reducing communication system available for interventional MRI environments, enabling up to eight concurrent dialogs during a scan – between

staff members, technologists and the patient. Optoacoustics MRI products are CE and MDR Medical Device certified, and US FDA 510(k) cleared.

We're proud of our outstanding reputation as a long-time supplier of robust, innovative and inherently safe solutions to academic and research institutions, hospitals and health agencies. Optoacoustics continues to expand its unique offerings in the medical equipment sector.

BOOTH C18

OSENSA Innovations Corp.

8672 Commerce Ct. • Burnaby, BC V5A 4N7 Canada

Telephone: +1 604 259 7177 • Email: info@osensa.comwww.osensa.com

OSENSA Innovations develops and manufactures fiber optic temperature sensor products for industrial applications. This includes single and multi-channel fiber temperature probes for MRI (magnetic resonance imaging), NMR (nuclear magnetic resonance imaging), and RF

(radio frequency) environments, including low-cost disposable temperature probes with fast response and exceptional accuracy. OSENSA's fiber optic sensing technology is transforming the temperature sensor industry by enabling industrial-grade fiber optic solutions that are

price-competitive with conventional wired thermocouples and RTDs (resistive thermal devices). OSENSA's fiber optic sensors are immune to electromagnetic radiation making them ideal for applications where thermocouples and RTDs fail.

BOOTH H22

Phantom Metrics

311 23rd Street Ext Ste. 200 • Pittsburgh, PA 15215 USA

Telephone: +1 412-449-0078 • Email: info@pstnet.comwww.phantommetrics.com

Phantom Metrics specializes in the design and manufacturing of quality MRI phantoms for diffusion imaging in research and clinical MRI scanning environments. Our phantoms help our customers verify scanner performance accuracy, stability, and comparability across time, site, and device. The Phantom Metrics family of MRI Diffusion Calibration Phantoms include our company's patented Taxon™ hollow fiber technology to provide ground truth characterization of diffusion performance with

simulated axons and axonal tracts. Taxon™ fibers include 0.9 um inside-diameter holes and controlled hole packing densities up to ~1M holes/mm. Key phantom features include arrays of 40+ characterized isotropic diffusion fluids for T1, T2, Proton Density, and ADC measurements. Anisotropic diffusion fiber tracts with varying fiber tract dimensions (6 mm X 6mm x 20 mm to 1 mm x 1mm x 20 mm), fiber hole packing densities (100%, 50%, 33.3%, 16.7%), and fiber tract crossing angles

(90°, 45°, 30°). Quantified fiber tract profiles allow quantification of restricted, hindered, and free diffusion metrics. All components enclosed within a domed acrylic shell using a single form factor for all current generation OEM head coils. Gain confidence in the accuracy of study protocols with regular, repeated quality assessment scans using the Phantom Metrics family of products.

The background of the advertisement features a large, dark blue MRI scanner with a prominent, glowing orange copper coil attached to its side. The setting is a modern, dimly lit room with a curved ceiling and recessed lights. The Philips logo is in the top left corner.

PHILIPS

MR 7700

Unmatched performance and precision

for research and advanced clinical diagnostics

Higher diffusion IQ, for all anatomies

- ▶ **Up to 35%** higher SNR¹
- ▶ **Up to 35%** shorter scan time²
- ▶ Limits distortions, even in large FOV

Excel in neuroscience

- ▶ **20% more** fMRI volumes²
- ▶ **50% more** DTI directions³
- ▶ Easy data transfer

Seamless integration of Multi Nuclei

- ▶ Six different nuclei⁴
- ▶ Across all anatomies
- ▶ Acquisition of proton and other nuclei, without switching coils

1 Compared to Ingenia Elition X with Vega HP gradients, measured in brain white matter.

2 Compared to Ingenia Elition X with Vega HP gradients.

3 Requires an unobstructed line-of-sight.

4 Caution: Investigational device for imaging with fluorine (19F) and xenon (129Xe). Limited by federal (or United States) law to investigational use. Clinical imaging with these nuclei requires usage of a cleared drug. No FDA-cleared drugs are currently available for these nuclei.

EXHIBITOR INFORMATION & BOOTH NUMBER



Philips Healthcare

Veenpluis 6 • Noord Brabant 5684PC Netherlands
Telephone: +31 20 59 77777 • email: jane.spencer@philips.com
www.philips.com/mri

Philips is a leading health technology company focused on improving people's lives – from healthy living and prevention, to diagnosis, treatment and home care.

Applying advanced technologies and deep clinical and consumer insights, Philips delivers integrated solutions that address the Quadruple Aim: improved patient experience, better health outcomes, improved staff experience, and lower cost of care.

Partnering with its customers, Philips seeks to transform how healthcare is delivered and experienced. Philips is a leader in diagnostic imaging, image-guided therapy, patient monitoring and health informatics, as well as in consumer health and home care.

We aim to improve 2.5 billion lives per year by 2030. We will be the best place to work for people who share our passion, promoting personal development, inclusion and diversity. Together we will deliver superior, long-term value to our customers and shareholders, while acting responsibly towards our planet and society, in partnership with our stakeholders.

BOOTH G23

Polarean Inc.

2500 Meridian Pkwy, Ste175 • Durham, NC 27713 USA
Telephone: +1 919 206 7901 • Email: info@polarean.com
www.polarean.com

The Company and its wholly owned subsidiary, Polarean, Inc., are revenue-generating, medical imaging technology companies operating in the high-resolution medical imaging space. Polarean aspires to revolutionize pulmonary medicine by bringing the power and safety of MRI to the respiratory healthcare community in need of new solutions to evaluate lung function, diagnose disease, characterize disease progression, and monitor response to

treatment. By researching, developing, and commercializing novel imaging solutions with a non-invasive and radiation-free functional imaging platform, Polarean's vision is to help address the global unmet medical needs of more than 500 million patients worldwide suffering with chronic respiratory disease. Polarean is a leader in the field of hyperpolarization science and has successfully developed the first and only hyperpolarized MRI contrast

agent to be approved in the United States. On December 23, 2022, the FDA granted approval for Polarean's first drug device combination product, XENOVUE™ (xenon Xe 129 hyperpolarized). 129Xe MRI is also currently being studied for visualization and quantification of gas exchange regionally in the smallest airways of the lungs, across the alveolar tissue membrane, and into the pulmonary bloodstream for future clinical indications.



BOOTH J12

PULSETEQ

64-66 High Street • Chobham, Surrey, GU24 8AA, UK
Telephone: +44 1276 856849 • Email: sales@pulseteq.com
www.pulseteq.com

PulseTeq will be displaying its latest RF coils for clinical research and preclinical applications on whole body scanners and small-bore scanners.

Please visit our booth to discuss coils and accessories for:

- Hyperpolarized Xenon
- Hyperpolarized Carbon in the heart, kidneys, abdomen and brain
- Close fitting single and dual tuned coils for applications in the leg or torso
- Localised body coils

This includes coils for 129Xe, 13C, 23Na, 31P, 19F, 2H, 7Li. These designs are available for all scanners from low field, 1.5 and 3.0T, and ultrahigh field. We welcome the opportunity to meet with you, discuss your requirements and our products on our booth at ISMRM23, booth number J12.

BOOTH D16

Pure Devices GmbH

Kettelerstr. 5 - 11 • Pavillon 13 • Rimpfing, Bavaria 97222 Germany
Telephone: + 49 0 9365 2069490 • Email: info@pure-devices.com
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, electrotechnicians and

physicians. Team spirit, solidarity, 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 near 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 bench-top MRI scanners "portable Lab" for educational use and "research Lab" for the scientific laboratory setting.

EXHIBITOR INFORMATION & BOOTH NUMBER

BOOTH H20

QMENTA

75 State Street, Suite 100 • Boston, Massachusetts 02109 USA
Telephone: +1 339-368-8040 • Email: info@qmenta.com
www.qmenta.com

QMENTA is a Medical Imaging AI tech company that offers cloud native software solutions for imaging professionals and imaging clinical trials through one single platform. Our customizable platform integrates 5 solutions in one single system: A PACS Cloud, A

Smart Uploader, AI Imaging Biomarkers, Central Review, Imaging Management System, Imaging EDC, Query Management, and Reporting) removing fragmentation, delays, human errors.

With our global cloud-based infrastructure powered by quality data and AI technology, your research teams will be able to integrate any complex imaging workflow in a matter of days, and in general, take faster and more accurate decisions.

BOOTH H11



RAPID Biomedical GmbH

Kettelerstrasse 3-11 • Rimpf D-97222 Germany
Telephone: +49 93 65 88 26 0 • Email: info@rapidbiomed.de
www.rapidbiomed.de

RAPID Biomedical GmbH develops and produces coils for magnetic resonance imaging. Our high-frequency coils for MR applications support researchers and clinicians worldwide in advanced disease diagnostics. Each coil is developed by our highly qualified experts and either tailored to the customer's specific requirements or created in a small series.

Over the last 25 years, RAPID has delivered over 1300 different coil designs to more than 30 countries. We have thorough experience

in designing and manufacturing human and animal coils from low field (0.2T) MR scanners to UHF (21T) NMR systems with a range of 14 different nuclei (and counting). All coils are handmade in Rimpf, Germany.

Our current R&D work concentrates on torso transmit coils for multi nuclei, a new version of our dual tuned head and flex coils and dedicated coils for preclinical work on rodents and primates.

Our sister company RAPID MR International (www.rapidmri.com) is located in Columbus, Ohio to assist the needs of the North and South American communities.

We cordially invite you to visit our booth to discuss your next project with RAPID coil engineers and examine our coil solutions and MR results first hand.

BOOTH B11



Resonance Technology Inc.

18121 Parthenia St Ste A • Northridge, CA 91325 USA
Telephone: +1 818 882 1997 • email: sales@mrvideo.com
www.mrvideo.com

Resonance Technology, Inc. is an ISO13485:2016 and FDA regulated manufacturing company of patient comfort Audio/Video devices for MRI and fMRI applications. In an ever-changing world, Resonance Technology, Inc. is constantly reengineering new

ways to make the MRI procedure entertaining and sedation-free as possible; as well as making devices for research paradigms in the fMRI environment. Along with our major systems, CinemaVision CV2020 and Serene Sound, Resonance Technology, Inc. always strives

towards fulfilling customer needs. Alongside with our product comes impeccable customer support for any technical or training needs to truly keep our customers 100% satisfied.

BOOTH D36

Resonint Limited

32 Salamanca Road, Room 118 • Wellington 6012 New Zealand
Telephone: +64 20 4158 7837 • Email: info@resonint.com
www.resonint.com

Resonint Limited was founded in 2019 to make Magnetic Resonance technology more accessible, flexible, and easy to use. Located in Wellington, New Zealand - we are a team with decades of experience in Physics, MR engineering, & product development. Our mission is to create products that enable the growth of MR technologies worldwide and inspire the next generation of MR experts. We provide an

ecosystem of intuitive products for researchers, educators, and industrial applications, using the latest embedded systems and signal processing technologies combined with flexible data analysis and visualisation tools.

At ISMRM 2022 in London, we unveil ilumr, a system developed to be the best-in-class fully integrated

desktop MRI. This compact device provides a hands-on MRI learning experience and has the performance to explore sophisticated MR methods. In addition, our flexible platform gives both educators & researchers the tools to create content and experiments through the use of Python notebooks & open source libraries.

EXHIBITOR INFORMATION & BOOTH NUMBER

BOOTH C35

Resoundant Inc.

421 1st Ave. SW • Rochester, MN 55902 USA
Telephone: +1 507-322-0011 • email: MREinfo@resoundant.com
www.resoundant.com

Resoundant, Inc. is a medical technology company dedicated to improving patient care and diagnosis accuracy by making Magnetic Resonance Elastography (MRE) available around the world. Resoundant is based in Rochester, MN and was founded by Mayo Foundation for Medical Education & Research, Mayo Clinic physicians and researchers. MRE is widely available to clinicians at over 2,000 locations

across the globe and is recognized as the most accurate technology for noninvasively assessing liver fibrosis. Clinicians and patients can find U.S. locations at MRE:connect (www.resoundant.com/mre-connect). The role of MRE has been increasingly recognized in multidisciplinary clinical guidelines for routine liver fibrosis assessment, particularly in suspected cases of non-alcoholic fatty liver disease

(NAFLD) and nonalcoholic steatohepatitis (NASH). The American College of Radiology issued Appropriateness Criteria® that identify MRE as the most accurate and applicable non-invasive liver fibrosis exam. MRE is reimbursed via a Category I CPT® code (76391) and is covered by numerous public and private insurance plans.

BOOTH F31

RS2D

Bay 1, 4600 5 Street NE • Calgary, AB T2E 7C3 Canada
Telephone: +1 403-769-9499 • Email: sales@nanalysis.com
www.rogue-research.com

RS2D designs and manufactures high magnetic resonance electronics based on their dynamic and versatile Cam4™, that offers high-performance for a wide range of applications in low-field and high-field NMR as well as pre-clinical and clinical imaging.

Headquartered near Strasbourg, France, RS2D pioneered preclinical MRI in 2011, with the first cryogen-free superconducting MRI system for rodents.

Since then RS2D has released the dynamic MRI Cameleon and the Gecho console powered by the versatile Cameleon4™ electronics platform. These systems are delivered with RS2D proprietary software suite: PRim for MRI and SPINit for NMR.

BOOTH C10



SA Instruments Inc.

65 Main Street • Stony Brook, NY 11790 USA
Telephone: +1 631 689 9408 • Email: jhiz@i4sa.com
www.i4sa.com

SA Instruments is the worldwide leader in pre-clinical MR-compatible monitoring and gating systems, with equipment in every major medical school in the world. For two decades, SA Instruments has offered physiological monitoring and gating, and other support products for small animal research. Recently SA Instruments extended monitoring and gating capability to include large animals. Systems are compatible with all imaging environments. New for 2023 are systems configured for Mag-

netic Particle Imaging and lower cost multi-animal monitoring and gating systems. Systems are available with 3 or 4 channels to allow simultaneous monitoring of multiple animals in MR, non-MR and multi-modal environments. Parameters include ECG, temperature, respiration, pressure, including invasive and non-invasive blood pressure, oxygen saturation and end-tidal CO₂. Air and fluid based heater systems allow animal temperature to be regulated even in tight imaging setups. Waveform

and trend data can be captured, stored, edited, displayed, and exported for analysis. 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. Also available is a MR-compatible ventilator with remote, miniature, pneumatic valves that provides ventilation for animals as small as mice.

BOOTH H25

Scintica

562 Waterloo Street, Upper Unit • London, Ontario N6B2P9 Canada
Telephone: +1 519 914 5495 • Email: Info@scintica.com
www.scintica.com

Scintica is a leading supplier of medical research solutions and provides elite applications, technical support, and a platform for today's scientists to share their scientific findings.

We carry a diverse portfolio of products, including imaging systems (MRI, PET, CT, Optical, DEXA, Photoacoustic and High-Frequency Ultrasound), intravital microscopy, lab equipment & instruments, workstations, incubators, tissue culture analysis, and much more. Our mission is to link scientists and research-

ers with the right precision tools to further research by providing high-value instrumentation and solutions to the preclinical research community.

Scintica, making the world brighter.

EXHIBITOR INFORMATION & BOOTH NUMBER

BOOTH C17

Shelley Medical Imaging Technologies

Toronto, Ontario M3B 1Y8 Canada

Telephone: +1 519-690-0874 | +1 416-447-6471 • Email: bob.gravett@simutec.com | bob.gravett@sympatico.ca
www.simutec.com

Shelley Medical Imaging Technologies, a Division of Shelley Automation, Inc. is a leader in the development, manufacturing and distribution of highly accurate & realistic MRI/PET/CT & ultrasound simulation products for; diagnostic imaging, radiation therapy & endovascular simulation procedures. Our products include:

- DCE Perfusion Flow Phantom, compatible with MRI, CT & PET
- MRI compatible Linear Motion Stage, use independently or sync'd with Rotational version
- MRI compatible Rotational Motion Stage, use independently or sync'd with Linear version
- Heart Motion Phantom compatible with MRI/CT & CT/ultrasound
- Anatomically correct vascular, heart & organ models, including patient specific models
- Physiological flow pump systems, programmable
- QA Flow Phantoms, compatible with MRI, PIV, CT & ultrasound
- Blood mimicking fluids for MRI, CT & Doppler ultrasound
- Micro-CT Performance Evaluation Phantoms

ISMRM GOLD
CORPORATE
MEMBER

BOOTH D19



Siemens Healthineers

Henkestrasse 127 • Erlangen D-91054 Germany

Telephone: + 49 9131 84 0

Contact: www.siemens-healthineers.com/how-can-we-help-you
www.siemens-healthineers.com/magnetic-resonance-imaging

At Siemens Healthineers, our purpose is to enable healthcare providers to increase value by empowering them on their journey towards expanding precision medicine, transforming care delivery, and improving patient experience, all enabled by digitalizing healthcare.

An estimated five million patients globally ev-

eryday benefit from our innovative technologies and services in the areas of diagnostic and therapeutic imaging, laboratory diagnostics and molecular medicine, as well as digital health and enterprise services.

Magnetic Resonance, a Business Line at Siemens Healthineers, offers innovative MRI

technologies with exceptional image quality, efficiency, and speed, while providing patient friendliness and investment protection. Equipped with these technologies and a very strong global collaboration network, we enable you to lead in MRI.

BOOTH A23

Singapore Exhibition & Convention Bureau

Tourism Court, 1 Orchard Spring Lane • Singapore 247 729 Singapore

Telephone: +65 67366622 • Email: secb@stb.gov.sg
www.visitsingapore.com

Consistently ranked as Asia's Top Convention City by the International Congress and Convention Association (ICCA), Singapore is a global leader for business events. As the lead government agency for the business events sector in Singapore, the Singapore Exhibition

& Convention Bureau™ (SECB) is responsible for shaping and retaining Singapore's exceptional reputation as one of the world's best business events destinations. A part of the Singapore Tourism Board (STB), SECB has over 40 years of experience in helping event

professionals, meeting planners and incentive organisers from around the world plan and execute successful events in this vibrant island-city.

BOOTH D25

BOOTH SHARE
WITH CANON

Skope

Gladbachstrasse 105 • Zurich 8044 Switzerland

Telephone: +41 043 500 80 60 • Email: contact@skope.ch
www.skope.swiss

Skope: Your Partner in Scientific MR Imaging

Skope provides solutions for the direct measurement of the dynamic magnetic field within the scanner during image acquisition.

Solutions are available for systems between 1.5T and 11.7T, allowing you to produce reli-

able and reproducible images using a streamlined workflow capable of integrating into any neuroimaging experimental design. Focus on neuroimaging goals instead of image quality concerns.

Possible applications span from characterizing prototype MR systems, to ensuring reproduc-

ible results in a neuroscience context – toward integration in to every-day use in tomorrow's MR system.

Make the difference.

MAGNETOM Cima.X* and MAGNETOM Terra.X*



**Visit our booth and
join our lunch symposium**

Wednesday, June 7, 2023
12:15–1:15 pm
Plenary Hall

With MAGNETOM Cima.X* and MAGNETOM Terra.X*, we introduce state-of-the-art technologies that will enable clinicians to expand the boundaries of clinical care. Designed for the purpose of creating new insights and equipped with cutting-edge technology, MAGNETOM Cima.X and MAGNETOM Terra.X are set out to make the difference.

siemens-healthineers.com/make-the-difference

* The products are still under development and not commercially available yet. Their future availability cannot be ensured.

SIEMENS
Healthineers

EXHIBITOR INFORMATION & BOOTH NUMBER

BOOTH J29

SR Research Ltd.

35 Beaufort Drive • Ottawa, ON K2L 2B9 Canada
Telephone: +1 613-271-8686 • Email: info@sr-research.com
www.sr-research.com

SR Research provides a uniform, cutting-edge eye-tracking solution whether for fMRI, MEG behavioural lab tracking and other brain imaging environments. A single EyeLink 1000 Plus can be used many unique ways and always outperforms all other video-based eye-

trackers, with the highest precision and accuracy around! With over 600 peer-reviewed fMRI publications, hundreds of sites worldwide including 1.5T, 7T to 10.5T scanners from multiple manufacturers, EyeLink systems give you a leading edge. With outstanding tech-

nical specifications, portable options, flexible experiment delivery software, and incredible customer support, SR Research enables researchers.

BOOTH C19

Subtle Medical

883 Santa Cruz Ave., Ste. 205 • Menlo Park, CA 94025 USA
www.subtlemedical.com

Subtle Medical is a healthcare technology company making medical imaging faster, safer, and smarter. Subtle Medical's AI-powered software solutions, SubtlePET™ and SubtleMR™, provide the potential to radiology departments to increase workflow efficiency

and improve the patient experience by enabling expedited MRI and PET image acquisition without compromising image quality.

Subtle's vendor-neutral solutions are a software upgrade to the entire fleet of MRI and

PET machines, extending scanner life with the latest technology reducing the need to purchase new equipment. The software is a quick and simple deployment with a significant long-term impact.

Meaningful Innovations in Diffusion Imaging: *Made Possible with the NeuroCam™ 3T & 7T*

Visit us at the Canon Medical ISMRM booth
to find the solution for you!

Diffusion Imaging



NeuroCam



In the field with us, nothing is invisible.
www.skope.swiss

The NeuroCam is not a medical device. The statements made regarding the NeuroCam have not been evaluated by the Food and Drug Administration. The safety and efficacy of the NeuroCam has not been confirmed by FDA-approved research. The NeuroCam is not intended to diagnose, treat, cure or prevent any disease. Not certified by the European Commission as Medical Device under MDR.

BOOTH J24

Sunnybrook Research Institute

2075 Bayview Ave. • Toronto, Ontario M4N 3M5 Canada
Telephone: +1 416-480-6100 • www.sunnybrook.ca/research

Sunnybrook Research Institute (SRI) is one of the fastest growing hospital-based research enterprises in Canada with well-established programs in discovery and translational research. SRI is fully affiliated with the University of Toronto, and conducts > \$100 million in research each year in over 500,000 square feet of infrastructure, developing innovations in care for more than 1 million patients annually. The vision of Sunnybrook is to invent the future of health care. As such, the mission of SRI is to integrate research with health care delivery across Sunnybrook to drive clinical excellence,

innovation and commercialization. SRI is committed to the advancement of personalized and precise diagnostics and therapeutics, and image-guided, minimally-invasive therapeutics.

Our research is specifically aimed at the delivery of novel diagnostic and interventional techniques to the hospital's clinical programs. Research areas in Physical Sciences include Biomedical Imaging and Image Analysis (MRI, Ultrasound, X-Ray, Digital Pathology and Optical); Precision Medicine (Radiogenomics,

Theranostics); Computational Modeling and Machine Learning; Design and Development of Medical Devices; Biophysics and Bioengineering; and Image-Guided Therapy. Research-dedicated MR imaging infrastructure at SRI includes 1.5 T, 3.0 T whole-body MRI systems, PET-MR and MR-Linac systems, and an incoming state-of-the-art 7.0 T MRI system.

BOOTH G28

SyntheticMR

Storgatan 11 • Linköping, Sweden SE-582 23 Sweden
Telephone: +46 (0) 13 101 650 • Email: info@syntheticmr.com
www.syntheticmr.com

At SyntheticMR, we strive to make quantitative imaging solutions the standard of care to support more precise diagnosis, reliable monitoring, and personalized treatment strategies. Built on sustainability, innovation, and trust, we strive to empower clinicians with efficiency and confidence to improve patient outcomes worldwide.

Our flagship product, SyMRI NEURO, is designed to help you save valuable time by reducing scan time, all the while aiding as an objective decision support for diagnosis and patient follow-ups. In a single fast scan SyMRI

NEURO offers a fast and standardized protocol with clinically relevant quantitative data for more robust assessments of patients. SyMRI provides automatic segmentation of tissue such as myelin volumes, robust quantification of white matter, gray matter, cerebrospinal fluid and brain parenchymal volume, data-driven diagnostic support and the validation of visual assessments and improved clinical confidence.

SyMRI MSK provides more information in less time for knee and spine scans. One single fast scan produces quantitative T1, T2, and PD

maps and a series of contrast-weighted images, for clinical use and advanced research. SyMRI MSK also gives the radiologist more control over the image quality by making it possible to change echo time (TE), repetition time (TR), and inversion delay (TI) post-scan.

BOOTH B17



Tesla Engineering Ltd.

11 Water Ln. • Storrington, West Sussex RH20 3EA, UK
Telephone: +44 1903 743941 • Email: sales@tesla.co.uk
www.tesla.co.uk

Tesla Engineering Ltd. was founded 50 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 Magnetic Resonance Imaging (MRI), Proton therapy, Radiotherapy, Semiconductor fabrication, Fusion and international laboratories.

Tesla started manufacturing MRI gradient coils in 1985 and today is the world's leading independent supplier of gradient coils for clinical and pre-clinical MRI, shipping around 1,000 per year. More recently, Tesla has been selected by a number of MRI system vendors as their strategic development partner. The first of these partnerships resulted in a new generation 7T 90cm UHF MRI magnet with the first shipment April 2016. More recently using the latest technologies, further magnets and gradient coils have been developed for whole-body, extremity and other specialised MRI systems.

The Tesla group skills in electromagnets, superconducting magnets, cryogenics, RF coils and composites are being applied to a new range of products for the MRI industry, including specialised high field magnets for dedicated clinical applications and research applications.

EXHIBITOR INFORMATION & BOOTH NUMBER

BOOTH J10

Thornhill Medical

60 Wingold Ave. • Toronto, Ontario M5G 2E8 Canada
Telephone: +1 888-597-1325 • Email: info@thornhillmedical.com
www.thornhillmedical.com

Thornhill Medical manufactures The RespirAct™ which is a computer-controlled gas blender used to control arterial CO₂ and O₂ in spontaneously breathing participants. Changing the partial pressure of CO₂ and O₂

in the blood is done to stimulate blood flow responses in organs, which can then be monitored using imaging technology (i.e. TCD or MRI). Monitoring blood flow response to blood gas changes in these organs reveals as-

pects related to their vascular beds. There are many potential applications for this technology including understanding the mechanisms of injury in stroke patients.

BOOTH E29

Time Medical Limited

20E, Rm. 301, Hong Kong Science Park • Shatin, Hong Kong
Telephone: +852 2156 1711 • Email: info@time-medical.com
www.time-medical.com

Time Medical pursues global scientific, technological and clinical excellence to develop the world's most sensitive and accurate MRI

systems for early detection of major illnesses. Time Medical focuses on developing the Next Generation MRI, which is poised to complete-

ly transform the MRI industry!

BOOTH C22

TracInnovations

Brydehusvej 13 • Ballerup, Capital Region 2750 Denmark
Telephone: +45 53 79 85 45 • Email: info@tracinno.dk
www.tracinnovations.com

TracInnovations is a Danish company established in 2015 focusing on innovative solutions for image based diagnosis and treatment. TracInnovations has developed the Tracoline sys-

tem, which is a MRI Markerless Motion Tracker and Monitor System that unnoticed records patient's head movements during brain scans. The system is successfully demonstrated for

MRI motion correction, retrospective as well as prospective.

BOOTH D12

Turing Medical

393 N Euclid Ave, Ste. 310 • St. Louis, MO 63108 USA
Telephone: +1 844-668-7464 • Email: contact@turingmedical.com
www.turingmedical.com

Turing Medical and its future applications are poised to revolutionize neuroimaging meth-

ods. Our mission is to deliver cost-effective imaging enhancements, establish next gen-

eration data analytics, and create a patient-centric experience in the MRI Suite.

ISMRM SILVER
CORPORATE
MEMBER

BOOTH G29

United Imaging Healthcare

2258 Chengbei Rd., Jiading District • Shanghai 201807 China
Telephone: +86 (21) 67076888 • www.united-imaging.com

Founded in 2011, United Imaging Healthcare is dedicated to providing global customers with high-performance medical imaging products, radiotherapy equipment, life science instruments and intelligent digital solutions to customers worldwide.

United Imaging Healthcare had launched more than 90 groundbreaking products globally, including a Total-Body PET/CT, HD TOF PET/MR, 75cm Ultra-Wide Bore 3.0T MR, 640-Slice CT Scanner, and Fully Integrated

CT-linac. Based on the company's top technologies, it has established collaborations with many world-renowned clinical and scientific research institutions, including UC Davis, Washington University in St. Louis, Stony Brook University, King Hussein Cancer Center and Fujita Health University Hospital.

So far, United Imaging Healthcare's products have been installed in more than 10,400 medical and research institutes in 59 countries, including the U.S., Japan, Korea, Italy, Poland,

Malaysia, New Zealand, the United Arab Emirates, etc.

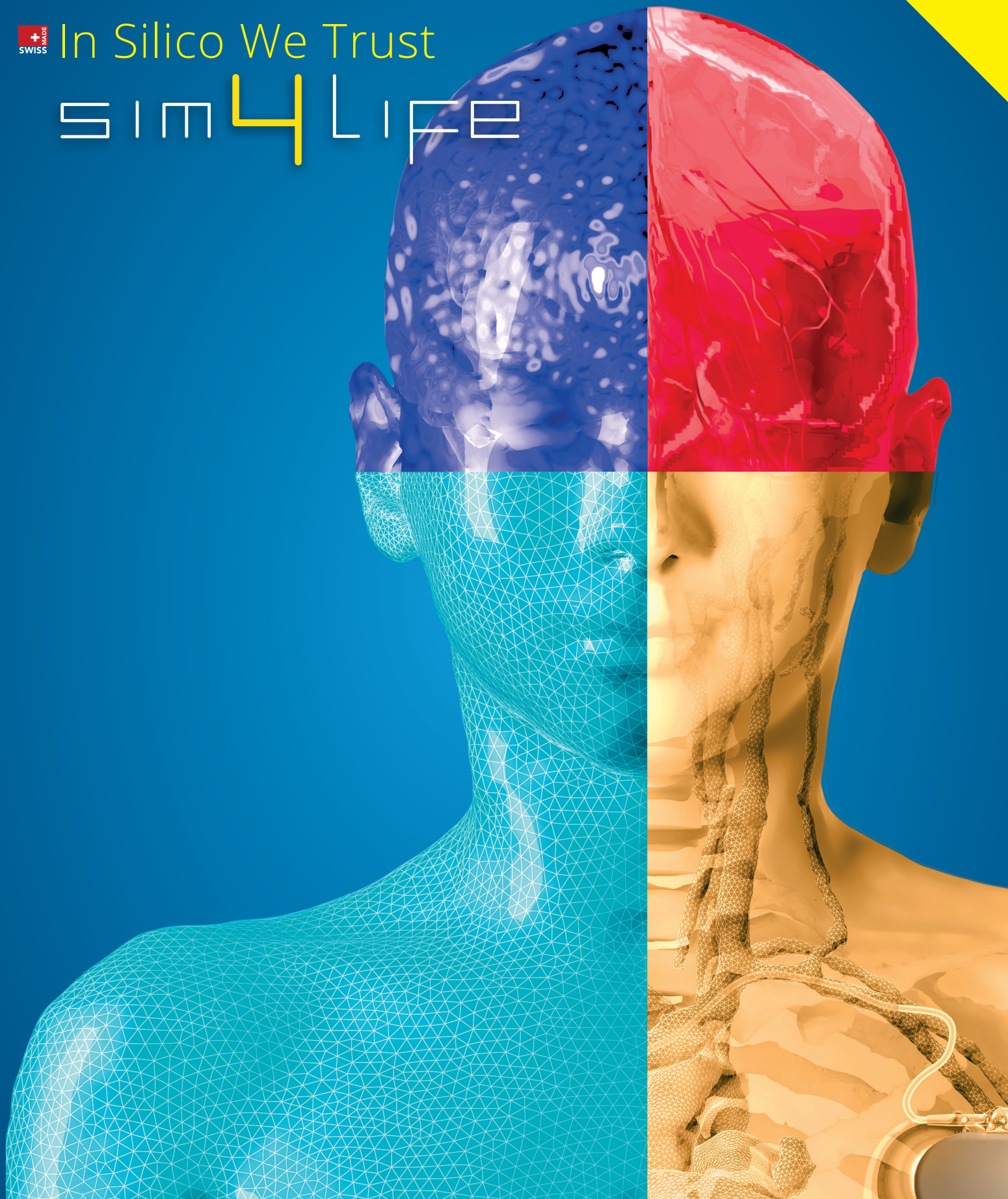
With our mission, "To Bring Equal Healthcare for All," and our vision, "Leading Healthcare Innovation," we are committed to creating more value for our customers and constantly improving the global accessibility of high-end medical equipment and services through in-depth cooperation with hospitals, universities, research institutions, and industry partners.

Visit us at
ISMRM 2023
Booth No. G11



In Silico We Trust

sim4Life



BOOTH G21

Vista.ai

431 Florence St., Ste. 100 • Palo Alto, CA 94301 USA
Telephone: +1 650-800-7937 • www.vista.ai

Vista.ai is harnessing the power of artificial intelligence (AI) to offer clinicians an easy, cost-effective, and stress-free way to conduct MRI studies. The company's FDA 510(k) cleared One Click MRI™ software-only solution automates and dramatically simplifies a CMR exam, enabling any MRI tech to perform a CMR in a standard mixed-use scanner time slot.

Available for use on Siemens Healthineers and GE Healthcare MRI scanners, One Click MRI.

- Eliminates the need for specialized CMR technologist
- Allows CMRs to fit into your mixed-use scanner standard time slot

- Makes scans less stressful for the technologist
- Gives patients greater comfort and convenience

Vista.ai is funded by Khosla Ventures, and the National Institute of Health's Small Business Innovation Research program.

BOOTH J15

VPixx Technologies Inc.

630 Clairevue West, Ste. 301 • Saint-Bruno, Quebec J3V 6B4 Canada
Telephone: +1 514-328-7499 • Email: sales@vpixx.com
www.vpixx.com

VPixx Technologies is known for our unique innovative instruments for neuroscience research. The PROPixx DLP LED video projector, supporting refresh rates up to 1440Hz, has become a standard for neuroimaging, neurophysiology, and behavioral vision research

applications. The TRACKPixx3 2kHz binocular eye tracker and the DATAPixx3 I/O hub offer microsecond-precise data acquisition synchronized to stimulus presentation. Installations can target fMRI, MEG, TMS, electrophysiology, as well as stand-alone lab spaces.

Our software simulator allows your users to code and debug their experiments remotely, freeing up valuable MRI/MEG time. Come and brainstorm how VPixx can help achieve YOUR research goals!

BOOTH J22

Xemed LLC

16 Strafford Avenue • Durham, New Hampshire 03824 USA
Telephone: +1 603-868-1888 • Email: info@xemed.com
www.xemed.com

Founded in 2004, Xemed is a small for-profit company offering world-class technology, products, and services for optical pumping and production of hyperpolarized gases. Xemed's XeBox is a fully-automated xenon polarizer, capable of multi-liter production of MagniXene at polarizations measured to ex-

ceed 50%, with signals strong enough to perform ventilation imaging at spatial resolutions well below a cubic centimeter. MagniXene is Xemed's Investigational New Drug undergoing clinical trials for guiding functional avoidance radiotherapy for lung cancer. Xemed's other products include xenon-129 gas (pure or

blended) with isotopic enrichments exceeding 92%, high-power multi-kilowatt line-narrowed lasers, and spin-exchange polarizers of helium-3 with world-leading polarization and productivity. Come visit our booth to ask whether Xemed can help you achieve your research quality and productivity goals.

ISMIR ASSOCIATE
CORPORATE
MEMBER

BOOTH G11

ZMT Zurich MedTech AG

Zeughausstrasse 43 • Zurich ZH 8004 Switzerland
Telephone: +41 44 245 97 65 • Email: info@zmt.swiss
www.zmt.swiss

ZMT Zurich MedTech AG (ZMT) is the leading provider of high-end solutions for computational modeling and simulation, experimental validation and best practices in medical device development.

ZMT's flagship product, Sim4Life, is a powerful simulation platform centered on the Virtual Population – a set of detailed functionalized, high-resolution computable anatomical phantoms that account for global variations in human anatomy – state-of-the-art physics solvers (EM-FDTD, EM quasi-static, thermal and

more), and tissue models. It provides a unique set of MRI-specific features for transmit and receive coil designs and safety evaluations, from low to ultra-high field MRI.

Sim4Life's IMAnalytics and MRiViP (IT'IS Foundation) is the first FDA-qualified MDDT solution for fully automated characterization of RF-induced heating or induced voltages of active implantable devices following ISO 10974 (Tier 3), and to extract RF-induced electric fields in a region of interest (Tier 2 or ASTM F2182 scaling).

Sim4Life MRI implant safety solutions are complemented by validation hardware for MRI-compatibility assessments, such as the MITS-TT, a 64/128 MHz table-top test system optimized for efficient scaling and validation of transfer function models of implantable devices for ISO 10974-compliant evaluation.

Join us at booth #G11 for a personal introduction to our powerful suite of MRI design and safety solutions!

EXHIBITOR INFORMATION & BOOTH NUMBER (NUMERICAL BY BOOTH)

Booth #	Exhibitor
A11	Philips Healthcare (GOLD Sponser)
A18	ISMRM ISMRT
A19	Embrace by Aspect Imaging
A21	ESMRMB
A23	Singapore Exhibition & Convention Bureau
A28	Lode B.V.
A29	GE Healthcare (GOLD Sponser)
A30	American Board of Medical Physics (ABMP)
A34	ASG Superconductors SpA
B11	Resonance Technology, Inc.
B13	Doty Scientific
B17	Tesla Engineering Ltd.
B18	Analogic
B19	ExtendMR, LLC
B20	Calimetrix
B22	Cambridge Research Systems
B23	Medi-Tech-Park (MR:comp GmbH)
B25	ODU-USA Inc.
C10	SA Instruments Inc.
C11	Nova Medical Inc (ASSOCIATE Sponser)
C16	Brain Products GmbH
C17	Shelley Medical Imaging Technologies
C18	ONSENSA Innovations
C19	Subtle Medical
C21	MRI.TOOLS GmbH
C22	TraclInnovations
C29	CaliberMRI
C31	Esaote North America
C35	Resoundant Inc.
D10	Exprodo Software Limited
D11	GMW Associates
D12	Turing Medical
D13	Max Planck School of Cognition
D16	Pure Devices GmbH
D18	LMT Medical Systems
D19	Siemens Healthineers (GOLD Sponser)
D28	Hyperfine, Inc.
D29	Mediso Medical Imaging Systems
D30	International Electric (IECO)
D34	IMRIS, Superconducting Systems
D35	Canon Medical Systems Corporation (GOLD Sponsor)

Booth #	Exhibitor
D36	Resonint Limited
E10	Neos Biotec
E11	Bruker (BRONZE Sponser)
E12	Corsmed
E29	Time Medical Ltd.
F11	NVision Imaging Technologies GmbH
F13	Optoacoustics Ltd.
F29	FUJIFILM Healthcare (BRONZE Sponser)
F31	RS2D
F35	Cubresa, Inc.
F37	ALA Scientific Instruments Inc.
G10	MRC Systems GmbH
G11	ZMT Zurich MedTech AG (ASSOCIATE Sponser)
G12	IRadimed Corporation
G19	InkSpace Imaging
G21	Vista.ai
G23	Polarean Imaging
G28	SyntheticMR
G29	United Imaging Healthcare
G30	Flywheel
G34	O2M Technologies, LLC
H11	RAPID Biomedical GmbH
H17	NUKEM Isotopes GmbH
H18	Neoscan Solutions GmbH
H19	Magnetica Ltd.
H20	QMENTA
H22	Phantom Metrics
H23	Methapharm Specialty Pharmaceuticals
H25	Scintica
J10	Thornhill Medical
J11	Gold Standard Phantoms
J12	PulseTeq
J13	MR Shim
J15	VPixx Technologies Inc.
J16	NordicNeuroLab
J17	BIOPAC Systems Inc.
J21	MR Solutions Ltd.
J22	Xemed LLC
J24	Sunnybrook Research Institute
J29	SR Research Ltd.
J31	NIRx Medizintechnik GmbH

EXHIBITOR INFORMATION & BOOTH NUMBER (ALPHABETICAL)

Exhibitor	Booth #
American Board of Medical Physics (ABMP)	A30
ALA Scientific Instruments Inc.	F37
Analogic	B18
ASG Superconductors SpA	A34
BIOPAC Systems Inc.	J17
Brain Products GmbH	C16
Bruker (BRONZE Sponser)	E11
CaliberMRI	C29
Calimetrix	B20
Cambridge Research Systems	B22
Canon Medical Systems Corporation (GOLD Sponsor)	D35
Corsmed	E12
Cubresa, Inc.	F35
Doty Scientific	B13
Embrace by Aspect Imaging	A19
Esaote North America	C31
ESMRMB	A21
Exprodo Software Limited	D10
ExtendMR, LLC	B19
Flywheel	G30
FUJIFILM Healthcare (BRONZE Sponser)	F29
GE Healthcare (GOLD Sponser)	A29
GMW Associates	D11
Gold Standard Phantoms	J11
Hyperfine, Inc.	D28
IMRIS, Superconducting Systems	D34
InkSpace Imaging	G19
International Electric (IECO)	D30
IRadimed Corporation	G12
ISMRM ISMRT	A18
LMT Medical Systems	D18
Lode B.V.	A28
Magnetica Ltd .	H19
Max Planck School of Cognition	D13
Mediso Medical Imaging Systems	D29
Medi-Tech-Park (MR:comp GmbH)	B23
Methapharm Specialty Pharmaceuticals	H23
MR Shim	J13
MR Solutions Ltd.	J21
MRC Systems GmbH	G10
MRI.TOOLS GmbH	C21

Exhibitor	Booth #
Neos Biotec	E10
Neoscan Solutions GmbH	H18
NIRx Medizintechnik GmbH	J31
NordicNeuroLab	J16
Nova Medical Inc (ASSOCIATE Sponser)	C11
NUKEM Isotopes GmbH	H17
NVision Imaging Technologies GmbH	F11
O2M Technologies, LLC	G34
ODU-USA Inc.	B25
Optoacoustics Ltd.	F13
OSENSA Innovations	C18
Phantom Metrics	H22
Philips Healthcare (GOLD Sponser)	A11
Polarean Imaging	G23
PulseTeq	J12
Pure Devices GmbH	D16
QMENTA	H20
RAPID Biomedical GmbH	H11
Resonance Technology, Inc.	B11
Resonint Limited	D36
Resoundant Inc.	C35
RS2D	F31
SA Instruments Inc.	C10
Scintica	H25
Shelley Medical Imaging Technologies	C17
Siemens Healthineers (GOLD Sponser)	D19
Singapore Exhibition & Convention Bureau	A23
SR Research Ltd.	J29
Subtle Medical	C19
Sunnybrook Research Institute	J24
SyntheticMR	G28
Tesla Engineering Ltd.	B17
Thornhill Medical	J10
Time Medical Ltd.	E29
TracInnovations	C22
Turing Medical	D12
United Imaging Healthcare	G29
Vista.ai	G21
VPixx Technologies Inc.	J15
Xemed LLC	J22
ZMT Zurich MedTech AG (ASSOCIATE Sponser)	G11

— INTERNATIONAL SOCIETY FOR MR —

ISMRT

RADIOGRAPHERS & TECHNOLOGISTS

— A Section of the ISMRM —

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FOR MAGNETIC RESONANCE
PROFESSIONALS

ISMRM & ISMRT ANNUAL MEETING & EXHIBITION

TORONTO
CANADA

2023

www.ismrt.org



Sonja K. Boiteaux, MS, RT(R)(MR), MRSO, MCHC
2022-2023 ISMRT President

Welcome to Toronto!

Toronto is a multicultural city located on the beautiful north-western shore of Lake Ontario. I hope that you will have an opportunity to spend at least a little time exploring this wonderful city during your stay, perhaps a visit to the CN Tower or maybe taking in a baseball game at Rogers Centre. We will gather for the ISMRM & ISMRT Annual Meeting at the Metro Toronto Convention Centre (MTCC).

Program Chair Huijun “Vicky” Liao and the ISMRT Annual Meeting Program Committee have done an incredible job putting together an outstanding program for this year’s meeting. A few meeting highlights are listed below:

- The President’s Lecture will be given by James Pipe, Ph.D., and it is entitled “Complexity & Value: Rethinking the Design, Use & Operation of MR.”
- Pediatric MR Safety forum
- The Plenary Lecture will be delivered by Penny Gowland, Ph. D., and it is entitled “The Body in Action.”
- Bettina Baeßler, M.D., will deliver the Keynote Lecture entitled “Radiomics: The Role of MR.”
- Multilingual clinical sessions in French, Spanish, Portuguese, Chinese, and Japanese will be provided for the first time ever in person as parallel sessions throughout the weekend. These sessions will be pre-recorded in English, and viewers who watch the recordings can earn CE/CPD credits.
- A 3-part MRI Masterclass called The Basics of Advanced Brain Imaging will include talks on fMRI, diffusion, and perfusion.
- The ISMRM-ISMRT Joint Forum will be held on Monday morning and is entitled “Neuroinflammation.”

The ISMRT Annual Meeting is also about socializing and networking. The poster reception, during which MR radiographers and technologists will be presenting their posters, is on Friday, 02 June, from 18:00-19:45. Oral presentations and Poster Awards will be presented at this reception.

You won’t want to miss the Saturday evening gatherings. These are always great opportunities to connect with fellow ISMRT members from around the globe and have some fun! For newbies, there will be the opportunity to attend the Newbie Reception on Saturday (by invitation only) prior to the ISMRT gathering.

Throughout the weekend, I encourage you to come and meet the members of the ISMRT Governing Board. We are excited to meet you and hear more about you and your MR experience. The ISMRT committees are chaired by our Governing Board members, and we depend on our at-large members to volunteer to serve on the committees. Many hands make light work! Our society cannot accomplish the things that we do without our committee volunteers.

I invite you to explore and learn more about our committees. We are happy to answer any questions you may have. Consider one or two committees which resonate most with you and become an active member of the ISMRT community by volunteering to serve on a committee.

During the ISMRT meeting, we will be reintroducing the ISMRT Social Hub, which is powered by the Discourse platform. Here we can all connect, share, and learn both during the Annual Meeting and beyond.

Lastly, and most importantly, I would like to thank each of you for attending the ISMRM & ISMRT Annual Meeting in Toronto and for your continued support. I would also like to thank the entire ISMRT Governing Board and the committee volunteers for all their hard work and dedication to the cause of MR education and the ISMRT. I would also like to thank our meeting sponsors for their essential and truly appreciated support. It would not be possible to put together such an incredible event like this without the involvement of so many!

I hope you enjoy the ISMRM & ISMRT Annual Meeting, the beautiful city of Toronto, and the fantastic days ahead of us!

Sincerely,

Sonja K. Boiteaux, MS, RT(R)(MR), MRSO, MCHC
ISMRT President 2022-2023

ABOUT THE ISMRT

ISMRT — A Global Community

The International Society for MR Radiographers & Technologists (ISMRT), A Section of the International Society for Magnetic Resonance in Medicine (ISMRM), is the leading non-profit organization that provides an international forum for education, information and research in magnetic resonance for radiographers and technologists throughout the world.

The ISMRT was established by technologists, clinicians and scientists of the ISMRM as a forum for radiographers and technologists to share their expertise and educational resources, with a common goal of improving healthcare for people worldwide.

As an organization, we are committed to promoting communication and the dissemination of cutting-edge MR developments. The objective of the ISMRT is to advance education and training, while striving to promote a high level of knowledge and professionalism in the field of MR radiography and technology.

ISMRT VISION STATEMENT

To inspire, unite, and elevate the global MR community.

ISMRT MISSION STATEMENT

Empowering MR professional to advance knowledge and promote excellence in clinical & research MRI.

- Objective 1: Provide education that meets the needs of MR radiographers and technologists globally.
- Objective 2: Grow membership and unite the ISMRT community.
- Objective 3: Promote & communicate the value of the MR radiographer and technologist to the wider community.
- Objective 4: Set-up the ISMRT organization for future success.

ISMRT EXECUTIVE COMMITTEE, GOVERNING BOARD & CENTRAL OFFICE STAFF • 2022-2023

ISMRT EXECUTIVE COMMITTEE

Sonja K. Boiteaux, M.Sc., R.T.(R)(MR), MRSO, CHC, President • Anne Dorte Blankholm, Ph.D., M.Sc.Rad., MRSO., Past President
 Glenn D. Cahoon, MSc., FSMRT, President-Elect • James J. Stuppino, B.Sc., R.T.(R)(MR), Treasurer
 Huijun (Vicky) Liao, B.Sc., ARMRT, Program Chair • Kate E. Negus, B.Appl.Sc., RMIT(MR), Program Vice Chair
 Adam D. Scotson, B.Sc., PG.Cert. MRI, Secretary • Sarah K. Green, M.H.Sc.(MRI). B.H.Sc.(Med.Img.), Executive Member

ISMRT GOVERNING BOARD

Sonja K. Boiteaux, M.Sc., R.T.(R)(MR), MRSO, CHC, President • Anne Dorte Blankholm, Ph.D., M.Sc.Rad., MRSO., Past President
 Glenn D. Cahoon, MSc., FSMRT, President-Elect • James J. Stuppino, B.Sc., R.T.(R)(MR), Treasurer
 Adam D. Scotson, B.Sc., PG.Cert. MRI, Secretary • Sarah K. Green, M.H.Sc.(MRI). B.H.Sc.(Med.Img.), Executive Member

Ben Kennedy, M.Sc., B.Appl.Sc.(MRI)	Kate E. Negus, B.Appl.Sc., RMIT(MR)	Petronella Samuels, M.Sc.
George Bouzalis, Sr., (MR)	Debra Patterson, M.Sc., R.T.(R)(MR)(CT)	Liana G. Sanches, M.Sc.(MR)(R)
Jacob Cameron, M.Sc., B.Sc.	Ilse Patterson, B.Rad.(MR)	Rhys A. Slough, M.Sc. (Med. Img. - MRI)
Huijun (Vicky) Liao, B.Sc., ARMRT	Barbara Pirgousis, Grad.Dip. MRT	
Cristian A. Montalba Zalaquett, B.Sc.	Nina Salman, M.Sc., B.Sc.(Hons)	

ISMRM & ISMRT CENTRAL OFFICE STAFF

Roberta A. Kravitz, Executive Director
 Anne-Marie Kahrovic, Associate Executive Director
 Gerardo Mopera, Executive Manager
 Liz Tharpe, Office Coordinator
 Mariam Barzin, Director of Finance • Kristina King, Accounting Coordinator & Registrar
 Melissa Simcox, Director of Education • Rhiannon Pinson, Education Manager
 Moby Quesada, Study Groups & Chapters Manager
 Sally Moran, Director of IT & Web • John Celio, IT & Web Coordinator
 Sandrine Milanello, Meetings Manager • Katrina Watson, Meetings Coordinator
 Ellen del Rosario, Marketing Coordinator

CREDIT DESIGNATION

The International Society for MR Radiographers & Technologists (ISMRT), A Section of the ISMRM, is recognized by the American Registry of Radiologic Technologists (ARRT) as a Recognized Continuing Education Evaluation Mechanism (RCEEM).

CPD credit endorsement is through the Australian Society of Medical Imaging and Radiation Therapy (ASMIRT) CPD Accreditation, the Royal Australian and New Zealand College of Radiologists (RANZCR), the New Zealand Institute of Medical Radiation Technology (NZIMRT), and the College of Radiographers (CPD NOW), United Kingdom.

CATEGORY A CREDIT HOURS & CPD

Maximum number of credit eligible by day:

Day	Category A Credit	Certificate of Participation Hours
Friday, 02 June 2023	1.50	1.50
Saturday, 03 June 2023	7.50	7.50
Sunday, 04 June 2023	8.50	8.50
Monday, 05 June 2023	8.00	8.00
Tuesday, 06 June 2023	8.50	8.50
Wednesday, 07 June 2023	8.50	8.50
Thursday, 08 June 2023	9.00	9.00

If you need CE/CPD credit, you must have your attendee name badge scanned upon entering/exiting the session room in order to claim full CE/CPD credit hours.



The ISMRT 32nd Annual Meeting is endorsed by the College of Radiographers (CPD NOW) and may help to support the following outcomes of CPD Now:

[CoR 02] Knowledge base [CoR 03] Work safely [CoR 06] Manage knowledge/information [CoR 07] High-quality healthcare/education services [CoR 09] Inter-professional/-agency working or learning	[CoR 11] Workforce development or staff governance [CoR 12] Service design [CoR 19] Evidence to support practice [CoR 20] Knowledge and skills in audit / research
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CLAIMING CREDIT

VERIFYING ATTENDANCE: CE/CPD credit can only be issued to verified attendees. In order to receive credit, you must:

- Have your attendee name badge scanned for each session of the ISMRT Annual Meeting.
- If you need to leave the room during the session, you must have your badge scanned upon exiting and rescanned upon reentering.

ONLINE EVALUATIONS

All evaluation forms for ISMRT and ISMRM-ISMRT-accredited courses for technologists/radiographers will be available to complete online. There are NO paper evaluation forms. We will send out notifications with complete instructions via email when the evaluations are available online.

CE/CPD credit claims are not completed until attendees have finished the meeting evaluations. These evaluations are very important. The ISMRT uses attendee feedback to guide and plan for future meetings. Once evaluations are completed, a certificate will be added to the attendee's records to print or download and stored in their online transcript.

STATEMENT ON INCLUSIVITY

The ISMRT embraces and values the diversity of all its community regardless of age, race, ethnicity, nationality, culture, gender, gender identity, sexual orientation, disability, religion, and socioeconomic status. It is our mission to ensure that everyone working in our field has equal and fair opportunities to contribute.

ANTI-HARASSMENT & NON-DISCRIMINATION STATEMENT

We stand together against harassment and discrimination. Respectful and professional behavior within the ISMRT is expected at all times. All members are responsible for making the Society a safe, inclusive environment where every individual feels valued, respected, and able to do their best work. Every member of our community should feel empowered to speak up without fear if they experience or observe behavior that violates these core values. Any incidents occurring at ISMRT activities should be brought to the attention of the Society's leadership and will be appropriately addressed.

SESSION ETIQUETTE

- Please turn off or mute all cell phones.
- Video recording in session rooms is not permitted.
- Children 14 and under are not allowed in the session rooms or on the exhibition floor.
- Please find a seat. Standing is not permitted.
- Please be aware all comments and questions are being streamed to the virtual audience.

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& Annual Meetings

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eLearning
Center



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GE HealthCare

ISMRT Annual Meeting & Exhibition

PROGRAM-AT-A-GLANCE

DAY 1: FRIDAY, 03 JUNE (1.50 CE Credits Available)

Registration Hours: 14:00-20:00

16:00	Friday Welcome Address <i>No CE Available</i>	Constitution Hall 106
16:15	Implant Safety <i>CE</i>	Constitution Hall 106
17:00	ISMRT Masterclass Series: <i>The Basics of Advanced Brain Imaging, Part I: Functional MRI</i> <i>CE</i>	Constitution Hall 106

17:45-18:00	Break
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18:00	1 st , 2 nd & 3 rd Place Research & Clinical Poster Winners <i>CE</i>	Constitution Hall 106
19:00	Poster Reception & Awards Presentation <i>No CE Available</i>	Constitution Hall 106

20:00	Adjourn
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Schedules may have changed since printing.
Please check the ISMRM & ISMRT Annual Meeting & Exhibition 2023 mobile app or Program-At-A-Glance online for the most current information.

07:30	ISMRT Masterclass Series: <i>The Basis of Advanced Brain Imaging, Part II: Diffusion MRI</i> CE	Constitution Hall 106
08:00	Saturday Welcome Address No CE Available	Constitution Hall 106
08:15	Plenary Lecture: <i>The Body in Action</i> CE	Constitution Hall 106
09:00	Keynote Lecture: <i>Radiomics: The Role of MR</i> CE	Constitution Hall 106

09:45-10:00	Break
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10:00	PARALLEL SESSIONS	
	Neuro CE Constitution Hall 106	ISMRT Multilingual Session: 10:00-11:00 - Chinese/English No CE Available Constitution Hall 107 <i>Courses will be presented live in the language specified with notes for English speakers. If you wish for a certificate of credit or participation including this course, on-demand viewing is required.</i>

11:30	1st, 2nd, & 3rd Place Clinical Abstract Winner Presentations CE	Constitution Hall 106
12:00	Diamond Sponsor: Philips Healthcare No CE Available	Constitution Hall 106

12:15-12:30	Grab-n-Go Lunch
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12:30	ISMRT Business Meeting No CE Available	Constitution Hall 106
13:00	ISMRT Awards No CE Available	Constitution Hall 106

13:30-13:45	Break
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13:45	PARALLEL SESSIONS	
	MSK CE Constitution Hall 106	MR Spectroscopy CE Constitution Hall 107

15:15-15:30	Break
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15:30	Safety: Pediatrics CE	Constitution Hall 106
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17:00	Adjourn
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- Improve workflow



Enhance diagnostic confidence

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- Add sequences



Increase patient accessibility

- **97% compatibility**³
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- Implant
- Diffusion
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1. Adaptive-C-SENSE-Net technology is the winner of Fast MRI Challenge hosted by Facebook AI research and New York Langone Health.

2. Compared to Philips SENSE.

3. On average, measured across a sample of sites from Philips MR installed base.

07:30	ISMRT Masterclass Series <i>The Basics of Advanced Brain Imaging, Part III: Perfusion MRI</i> CE	Constitution Hall 106
08:00	Sunday Welcome Address <i>No CE Available</i>	Constitution Hall 106

08:15	PARALLEL SESSIONS	
	Cardiac CE Constitution Hall 106	ISMRT Multilingual Sessions: 08:15-09:15 - Japanese/English 09:20-10:20 - Portuguese/English <i>No CE Available</i> Constitution Hall 107 <i>Courses will be presented live in the language specified with notes for English speakers. If you wish for a certificate of credit or participation including this course, on-demand viewing is required.</i>

09:45-10:00	Break
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10:00	PARALLEL SESSIONS	
	Interventional MR CE Constitution Hall 106	ISMRT Multilingual Session: 10:25-11:25 - French/English <i>No CE Available</i> Constitution Hall 107 <i>Courses will be presented live in the language specified with notes for English speakers. If you wish for a certificate of credit or participation including this course, on-demand viewing is required.</i>

11:30	1 st & 2 nd Place Research Abstract Winner Presentations, JAK Winner Presentations CE	Constitution Hall 106
12:00	Diamond Sponsor: GE Healthcare <i>No CE Available</i>	Constitution Hall 106

12:15-12:30	Grab n Go Lunch
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12:30	President's Lecture CE	Constitution Hall 106
13:30	President's Award Abstract Presentation CE	Constitution Hall 106

13:45-14:00	Break
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Schedules may have changed since printing.
Please check the ISMRM & ISMRT Annual Meeting & Exhibition 2023 mobile app or Program-At-A-Glance online for the most current information.

14:00	PARALLEL SESSIONS	
	Cancer CE Constitution Hall 106	Pediatric No CE Available Constitution Hall 107

15:30-15:45	Break
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15:45	PARALLEL SESSIONS	
	MR Safety National Guideline Initiative: Nordic Region CE Constitution Hall 106	ISMRT Multilingual Session: 15:45-16:45 - Spanish/English No CE Available Constitution Hall 107 <i>Courses will be presented live in the language specified with notes for English speakers. If you wish for a certificate of credit or participation including this course, on-demand viewing is required.</i>

16:45-17:05	Break
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17:10	ISMARM Opening Session: Welcome & Mansfield Lecture CE	Plenary Hall (Exhibit Hall F/G)
18:30	ISMARM Opening Reception No CE Available	Exhibition Hall South Building, Level 800

20:00	Adjourn
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DAY 4: MONDAY, 05 JUNE

For ISMRT attendees registered for four day registration and the ISMRM Annual Meeting

Registration Hours: 06:30-18:30

Exhibition Hall Hours: 10:00-17:00

07:00	ISMRM Wake Up & Take a Deep Breath! CE	Room 713A/B North Building
08:15	ISMRM-ISMRT Joint Forum: Neuroinflammation CE	Room 716A/B North Building
11:15	Monday ISMRM Plenary Session: Moral & Ethical Issues in MRI Research CE	Plenary Hall (Exhibit Hall F/G) North Building
13:45	ISMRM Motion Correction Devices from Head to Toe CE	Room 718A North Building
16:00	ISMRM Contrast Agents CE	Room 718A North Building

SEE YOU NEXT YEAR IN *Singapore!*

ISMRT AWARD RECIPIENTS

Proffered Paper Award Recipients

PRESIDENT'S AWARD

PROGRAM #	TITLE	AUTHOR
5436	<i>Antiretroviral Therapy Use Is Associated with Ectopic Pericardial & Paracardiac Adipose Deposition in People Living with HIV</i>	Patricia Maishi

CLINICAL FOCUS WINNERS

PROGRAM #		TITLE	AUTHOR
5429	1 st Place	<i>The Clinical Benefit of High-Resolution 3D Proton Density at 3T in the Discrimination Between Intracranial Aneurysm & Normal Variants</i>	Angela Borella
5430	2 nd Place	<i>Comparison of Compressed Sensing Accelerated MR Elastography to Standard Breath-Hold Gradient Recalled Echo MRE for Estimating Liver Stiffness</i>	Scott Hipko
5431	3 rd Place	<i>Prognostic Role of Right Ventricular Late Gadolinium Enhancement in Patients with Tetralogy of Fallot Undergoing Pulmonary Valve Replacement</i>	Moreno Zanardo

RESEARCH FOCUS AWARDS

PROGRAM #		TITLE	AUTHOR
5432	1 st Place	<i>VitaLenz: A Convolutional Neural Network for the Detection of Magnetic Resonance Imaging Artifacts</i>	Brian Johnson
5433	2 nd Place	<i>MR-Safety of Mixed-Brand of Cardiac Implantable Electronic Devices: Comparison of RF-Induced Heating with Approved Single-Brand at 1.5T & 3T</i>	Issei Fukunaga
5434	3 rd Place	<i>Efficient Fat Suppression & Motion Correction Using a Dixon PROPELLER Sequence with Interleaved Echoes & Asymmetric Readout Waveforms</i>	Matea Borbaš (Šimić)

Poster Award Recipients

CLINICAL FOCUS WINNERS

PROGRAM #		TITLE	AUTHOR
5490	1 st Place	<i>The Benefits of ZTE to Standard MRI Practice</i>	Helen Prince
5491	2 nd Place	<i>Clinical Impact of Single Breath Hold Contrast Enhanced 4D-MRA with High Temporal & Spatial Resolution Without k-Space Data Sharing Techniques</i>	Tatsunori Saho
5492	3 rd Place	<i>Diffusion Imaging: Multi-Shell DTI on a Whole-Body 3T Scanner Versus a Head-Only MAGNUS 3T for Traumatic Brain Injury Evaluation</i>	Gail Kohls

RESEARCH FOCUS AWARDS

PROGRAM #		TITLE	AUTHOR
5493	1 st Place	<i>RA Synovitis Segmentation Based on Unsupervised Learning & TIC Signal Data on DCE-MRI</i>	YiJun Mao
5494	2 nd Place	<i>Technologist Assessment of a Realtime Motion Monitoring System for fMRI Exams</i>	Kristina Pelkola
5495	3 rd Place	<i>Evaluation of T1 Relaxation Time Measurement Using Magnetic Resonance Spectroscopy Unobstructed by the Presence of Fat: A Liver Phantom Study.</i>	Makoto Suzuki

John A. Koveleski Award for Professional Development

PROGRAM #	TITLE	AUTHOR
5435	<i>Improving the Patient Experience for Pediatrics in Magnetic Resonance Imaging Through Play Therapy</i>	Charlotte Swain

Charlotte originally started her career in radiology as an imaging assistant at Nottingham University Hospitals (NUH) in 2013. She moved into MRI by becoming the department's first-ever imaging assistant just a year later. She quickly helped to expand this new role with her colleagues and her enthusiasm and dedication meant that she became integral in training the new starters.

A period of expanded learning and education followed, during which time she completed a two-year foundation degree at Birmingham City University, quickly followed by a radiography bridging programme at the University of Derby. In 2019, Charlotte graduated with a first-class B.Sc. honours degree, completing her journey from imaging assistant to radiographer.



She is now a senior MRI radiographer and valued team member within one of the UK's largest acute NHS trusts.

Since establishing herself within MRI, Charlotte has continued to extend her role. She has, amongst other responsibilities, become the infection prevention and control link for the department. This position has many duties, including liaising with other healthcare professionals and writing key departmental documents and procedures. This was especially challenging throughout the COVID-19 pandemic when advice and policy changed on a daily basis.

Patient well-being and safety have remained a central issue for Charlotte. Evidence of this is provided by her regularly presenting training for non-medical referrers within the Trust. In 2020, when Nottingham established a new intra-operative MRI service, Charlotte was an inaugural member of the team. This has provided her with further opportunities to expand both her personal learning as well being involved in new protocols, methods of working and training.

Patient-centred care is at the heart of Charlotte's ethos and development, especially when helping anxious or claustrophobic patients and children to successfully negotiate their MRI examinations. New techniques such as the Play Therapy service were a natural progression of this. Working alongside play therapists, Charlotte has contributed to aid children from 1.5 years old and upwards to have their MRI scan without sedation or the need for a general anaesthetic.

INDEX: ABSTRACTS BY FIRST AUTHOR FOR 2023

POSTER AUTHOR	POSTER TITLE	POSTER #
Akatsuka, Yoshihiro	<i>Quantitative Assessment of Anterior Talofibular Ligament Quality in Chronic Ankle Instability Using T2* Relaxation Time</i>	5418
Altokhis, Amjad	<i>Predictors of Long-Term Disability in MS Patients Using Routine MRI Data: A 15-Year Retrospective Study</i>	5396
Altokhis, Amjad	<i>Longitudinal Clinical Study of Patients with Iron Rim Lesions in Multiple Sclerosis</i>	5400
Altokhis, Amjad	<i>Magnetic Resonance Imaging as a Prognostic Disability Biomarker in C Multiple Sclerosis: A Systematic Review & Meta-Analysis</i>	5401
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ISMRM-ISMRT Joint Forum: Neuroinflammation

ISMRT Education Session

Monday, 05 June 2023

08:15-10:15

Room: 716A/B (North Building, Level 700)

Session Number: M-03

Moderators: Cornelia Laule & Kate Negus

OVERVIEW

The purpose of this joint session of ISMRM and ISMRT is to engage radiographers/technologists, scientists and physicians with information on how each approaches this topic in order to gain insight into the imaging, diagnosis and research of various neuroinflammatory conditions.

It is also one of the sessions in the Clinical Focus meeting, "Imaging the Fire in the Brain," which is a special series of sessions on neuroinflammation included in the week of ISMRM.

TARGET AUDIENCE

Radiographers, MR technologists, radiologists, clinicians, and scientists interested in learning about the clinical translation of technological advances in MRI, particularly in the fields of neuroimaging.

EDUCATIONAL OBJECTIVES

As a result of attending this course, participants should be able to:

- Describe the physiology of neuroinflammation;
- Explain the clinical interest of radiologist and interesting cases; and
- Identify the sequences and protocols used for neuroinflammation.

TIME	TOPIC	PRESENTER
08:15	Neuroinflammation: Physiology, Clinical Interest of Radiologists & Interesting Cases	John Port
08:55	Tips & Tricks to Optimize Your Inflammatory Brain Protocols	Bac Nguyen
09:05	An Overview of the Role of MRI in the Diagnosis & Monitoring of Multiple Sclerosis	Marios Yiannakas
09:15	Multiple Sclerosis Protocol II	Cristian Montalba Zalaquett
09:25	Advanced Imaging for Neuroinflammation Research	Erin MacMillan
09:35	Panel Discussion	

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Singapore
04-09 MAY 2024



ABSTRACT DEADLINE: 08 NOVEMBER 2023

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NOTES

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Future ISMRM Annual Meetings



2024 Singapore



2025 Honolulu, Hawai'i, USA



2026 Cape Town, South Africa