

THE FUTURE OF MOLECULAR MR

Cellular and Molecular Imaging Workshop

ORLEANS, France

17-20 June 2024

Monday June 17			
	15:00		Registration Opens
	16:40		Opening Session - Eva Jakab Toth, Peter Caravan
			Keynote Lecture
	17:00	18:00	<i>Jeff Bulte: Endogenous and Exogenous diaCEST MRI Contrast Agents as Label-Free Sensors in Complex Biological Systems</i>
	18:00	20:00	Welcome Reception
Tuesday June 18			
Session 1			
	8:30	9:00	<i>Invited talk: Leif Schröder, Functionalized Host Systems for Self-Refilling Hyperpolarization in Switchable Xe MRI Reporters</i>
Zoltan Kovacs	9:00	9:15	Stereoselective Parahydrogen Induced Polarization
Laura Kuebler	9:15	9:30	Deuterium Metabolic Imaging - Rediscovery of a Powerful Imaging Tool for Precise In Vivo Monitoring of Glucose Metabolism: From Bench to Bedside
Myriam Chaumeil	9:30	9:45	Metabolic neuroimaging of ApoE and APP mutational status in mouse models of Alzheimer, Ås disease
Ilai Schwartz	9:45	10:00	Clinical parahydrogen-based polarization - solving the outstanding technical challenges
	10:00	10:30	Coffee Break
Session 2			
	10:30	11:00	<i>Invited talk: Janet Morrow, Iron coordination cages of iron as pH-responsive drug carriers and MRI probes</i>
Zoltan Garda	11:00	11:15	Fluorine containing Mn(II) complex as 1H and 19F MRI contrast agent candidate
Mariane Le Fur	11:15	11:30	Molecular MR imaging of intestinal inflammation in a mouse model of colitis using a redox-active iron complex.
	11:30	12:00	Poster Pitches
	12:00	13:00	Lunch
	13:00	14:30	Poster Session 1 (odd numbers)
Session 3			
	14:30	15:00	<i>Invited talk: Alkystis Phinikaridou, Molecular Imaging probes for imaging fibrosis and inflammation in cardiovascular diseases</i>
Silvio Aime	15:00	15:15	A Magnetic Resonance Imaging-Chemical Exchange Saturation Transfer (MRI-CEST) Method for the Detection of Water Cycling across Cellular Membranes
Hyla Allouche-Arnon	15:15	15:30	A genetically engineered reporter system designed for 2H-MRI allows quantifiable maps of reporter gene expression in vivo
Marta Vuozzo	15:30	15:45	Treatment response classification using oxygen enhanced (OE-), dynamic contrast enhancement (DCE-) MRI and [18F]FAZA PET prediction
Charles Springer	15:45	16:00	Metabolic Activity Diffusion Imaging [MADI]
	16:00	16:30	Coffee Break
Session 4			
	16:30	17:00	<i>Invited talk: Miloslav Polasek, Innovating chelators beyond traditional container function</i>
Mauro Botta	17:00	17:15	Exploring the efficacy of paramagnetic chelates embedded in nanogels as MRI probes
Matthew Allen	17:15	17:30	Complexes of Eu(II) as contrast agents for MRI
Sajal Sen	17:30	17:45	Probing Cholinergic Brain Function Using Multimodal Molecular Imaging
Aurora Rodriguez	17:45	18:00	Deciphering the Efficacy of Iron(III) Complexes as MRI Contrast Agents
			Free evening
	19:30		Apero by FINYS (young investigators by invite and RSVP only)

Wednesday June 19			
Session 5			
	8:30	9:00	<i>Invited talk: Ichio Aoki, Manganese-enhanced MRI (MEMRI) and its expansion using nanoparticles</i>
Swannie Pedron	9:00	9:15	Targeting vascular cell adhesion molecule 1 (VCAM-1) for an improved diagnosis and management of myocarditis using cardiac immuno-MRI.
Youssef Wadghiri	9:15	9:30	19F NMR in Theranostic Engineered Protein Fibers: Unveiling Protein Structure and Temperature
Kristina Djanashvili	9:30	9:45	MRI-Assisted Delivery of Radiopharmaceuticals to Tumors Using SPIONs-Anchors
Samuel Lehr	9:45	10:00	Polymer Microparticles as Multivalent Xenon Hosts for HyperCEST NMR
	10:00	10:30	Coffee Break
Session 6			
	10:30	11:00	<i>Invited talk: Simonetta Geninatti-Crich, Unveiling Tumor Characteristics with Low and Ultra-Low Field Magnetic Resonance Techniques</i>
Remy Chiaffarelli	11:00	11:15	Quantitative PET/MRI of Perfusion and Excretion with a New 18F-Labeled Gadolinium-Based Probe: Preclinical Experience
Audrey Picot	11:15	11:30	New MRI theranostic tool for microthrombosis in acute ischemic stroke
Eric Gale	11:30	11:45	Molecular MRI of Neuroinflammation Using Fe-PyC3A
Jenny Yang	11:45	12:00	Noninvasive Early Detection and Stage of Chronic Lung Diseases with Precision MRI (pMRI)
	12:00	13:00	Lunch
	13:00	14:15	Poster Session 2 (even numbers)
Session 7			
	14:15	14:45	<i>Invited talk: Célia Bonnet, Zinc detection by MRI : from rational design to in vivo applications</i>
Nadia Chaher	14:45	15:00	A New Collagen III Targeted MRI Probe for Molecular Imaging of Cardiac Fibrosis
Robert Ohlendorf	15:00	15:15	Molecular brain imaging with engineered hemodynamics
Daniela Delli Castelli	15:15	15:30	Endogenous 31P CEST: A tool for monitoring Glycolysis without contrast agents
	15:30	16:00	Coffee Break
Session 8			
	16:00	16:30	<i>Invited talk: Maxime Gauberti, Immuno-MRI and MPI: toward clinical translation</i>
	16:30	17:30	Round Table Discussion: The Future of Molecular MR
	18:00		Bus departs for social event, Chateau de la Ferté St Aubin
Thursday June 20			
Session 9			
	9:00	9:30	<i>Invited talk: Jesus Ruiz Cabello, Advancing Precision Imaging: Novel Nanotechnology-Based Contrast Agents for MRI and Multimodal Diagnosis</i>
Iris Zhou	9:30	9:45	MRI using redox-active iron complex for in vivo assessment of neuroinflammation in a mouse model of multiple sclerosis
Victor Han	9:45	10:00	Any-nucleus Distributed Active Programmable Transmit (ADAPT) Coil
Gregory Thiabaud	10:00	10:15	Texaphyrin-Based Calcium Sensor for Multimodal Imaging
Christian Farrar	10:15	10:30	Water-Resonant Spin-Locking with MR Fingerprinting for Rapidly Exchanging Proton Quantification
	10:30	11:00	Coffee Break
Session 10			
	11:00	11:30	<i>Invited talk: André Martins, Hybrid PET/MRI and Beyond: Innovations in Molecular and Metabolic Imaging</i>
Graeme Stasiuk	11:30	11:45	Redox double-switch cancer theranostics through Pt(IV) functionalised manganese dioxide nanostructures
Cuihua Wang	11:45	12:00	Imaging oxidative stress markers in experimental neuroinflammation using a highly efficient myeloperoxidase-activatable MRI probe
Gyula Tircso	12:00	12:15	Improving the relaxivity response of potential Mn(II)-based pH-responsive probes
Fanny Chapelin	12:15	12:30	Magnetic resonance imaging of macrophage response to radiation therapy
	12:30	13:00	Closing Remarks/Awards
	13:00	14:30	Lunch / Program end