



R&D Seminar Program

Organizing Committee



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Marseille Imaging Institute organizes a R&D seminar.

This week will be dedicated to bring together our community of researchers, teachers and students with players from the socio-economic world.

The idea is to present the evolution of imaging, careers, lifepaths to give our students a vision of the future and opportunities in the field of imaging.

We have the chance to bring together 14 international academic experts on each imaging topic as well as 25 partners of the socio-economic world.

This meetings is an opportunity to ensure the cross-fertilization of disciplines and to promote contacts between students, researchers, teachers and partners of the socio-economic world.

Enjoy...



R&D Seminar Program

Here are the different formats and events of the week

Amphitheatre - Exhibition Hall – Cosquer Cave



PLENARY SESSION

In the amphitheatre, the speakers of the plenary sessions will introduce the thematic field and then develop aspects of the state of the art and the most recent advances.

JOB MEETING

In the exhibition hall, industrial partners will be present to exchange and discuss about imaging technologies and job possibilities in their company.

POSTER SESSION

In the exhibition hall, students will have the chance to present their PhD work in poster format.

DOCTORAL SESSION

In the amphitheatre, selected PhD students will have the opportunity to orally present their research.

RESEARCH SESSION

In the amphitheatre, speakers will focus on the most advanced topics related to their research field.

INDUSTRIAL SESSION

In the amphitheater, speakers will present the evolution of technologies, life paths... and will be available to discuss at the stands located in the exhibition hall.

SOCIAL EVENT

The gala evening will take place in an emblematic place in Marseille. A private visit to the Cosquer cave and the museum followed by a cocktail reception to discover Provençal dishes.



R&D Seminar Program


Nuclear Imaging 4th of November

PLENARY SESSION – 9:30 AM



Xiaoyuan Shawn CHEN, National University of Singapore.

Cancer Theranostics.

 Theranostics, molecular imaging, radioligand therapy, mRNA vaccine, nanomedicine

EXHIBITION Hall, POSTER SESSION – 11 AM

PMB
ALCEN




VILBER

MORE THAN IMAGES


DOCTORAL SESSION – 1:30 PM



Alicia GARNIER - **Time-of-Flight imaging for gamma prompt imaging in protontherapy.** CPPM

 Imaging, gamma prompt, protontherapy, Monte Carlo, Time-of-Flight

Quang Hieu DUONG - **Elucidating and targeting HSP27 stress-induced signaling pathways driving treatment resistance of prostate cancer for personalized applications.** RNAoTher

 HSP27, treatment resistance prostate cancer, personalized therapy



R&D Seminar Program

Nuclear Imaging 4th of November

RESEARCH SESSION – 2:30 PM



- **Charles TRUILLET** – **Advances in molecular imaging for targeted therapies: integrating preclinical and clinical insights to optimize tumor treatment.**

Université Paris Saclay, CEA au laboratoire BioMaps, FRANCE



Theranostic, PET imaging, radiotherapy, immune system imaging, translational



- **Christopher MONTEMAGNO** (3 PM) - **Innovations in Pre-Clinical Nuclear Medicine: Shaping the Future of Oncology.**

Centre Scientifique de Monaco, MONACO



pre-clinical studies, theranostics, combination therapies, beta and alpha emitter, solid and liquid tumors



R&D Seminar Program

IA for Imaging 5th of November

PLENARY SESSION – 9:30 AM



Caroline PETIT-JEAN

Laboratoire d'informatique, du traitement de l'information et des systèmes
LITIS, University of Rouen Normandie, FRANCE.

Deep learning models in medical imaging: an explainability perspective.

🔍 Explainability, interpretability, medical imaging, machine learning, saliency maps

EXHIBITION Hall, POSTER SESSION – 10:30 AM



datamarkin



VILBER
MORE THAN IMAGES

DOCTORAL SESSION – 1:30 PM



Sandra MARTIN - Segmentation and acceleration of MRI acquisitions in the context of neuromuscular pathologies. CRMBM / Institut FRESNEL

🔍 MRI, Segmentation, acceleration, U-Net, Variational Network, Muscle

Steven JIA – Multi-contrast reconstruction of a single-subject fetal brain MRI using Implicit Neural Representation. INT

🔍 MRI, multi-contrast reconstruction

IA for Imaging 5th of November

INDUSTRIAL SESSION – 2:30 PM



- **Emrah NAZIF - AI-Powered Image Analysis with No-Code Solutions**

Founder, Datamarkin - No-Code AI Solutions

🔍 Artificial Intelligence, Automation, Image Analysis, No-Code, Research Collaboration



- **Timothé BOUTELIER - Physics Informed Neural Network applied to 3D perfusion.**

Oléa Medical, La Ciotat, FRANCE

🔍 Perfusion Imaging, Inverse problem, Artificial Intelligence, PINN



- **Jean-Joseph CHRISTOPHE & Thomas DECOURSELLE - How AI can ease cardiovascular MR examination interpretation.**

CEO & CTO of CASIS

🔍 Cardiovascular, MRI, Medical Imaging, AI, CT

RESEARCH SESSION – 4:30 PM



- **Oscar ACOSTA - IA in prostate Cancer Radiotherapy: towards a precise and personalized planning**

LTSI INSERM 1099, Université de Rennes, FRANCE

🔍 Prostate Cancer, Magnetic Resonance Imaging, Personalized Planning, pseudo CT generation, Tumor Control



- **Alain Lalande – Deep learning and cardiac MRI. Progress and limitations.**

Laboratoire ICMUB, Pôle Imagerie Médicale, CHU de Dijon, University of Burgundy, FRANCE

🔍 Heart, MRI, segmentation, kinetic images, deep learning.



R&D Seminar Program

OPTICAL Imaging
6th of November

PLENARY SESSION – 9:30 AM



Huabei JIANG

USF Center for Advanced Biomedical Imaging, University of Florida, Tampa, USA.

Developing New Imaging Technologies using Light and Sound.

 **Photoacoustic Tomography, Thermoacoustic Tomography, Cancers, Neurodisorders and Joint Diseases**

EXHIBITION Hall, POSTER SESSION – 10:30 AM

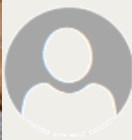




R&D Seminar Program

OPTICAL Imaging 6th of November

DOCTORAL SESSION – 1:30 PM



Roberta STACCHINI - Prevent glioblastoma recurrence by tailoring local treatments to the postsurgical microenvironment. INP

🔍 Glioblastoma, local treatment, surgery, microenvironment, combination therapy, Drug delivery



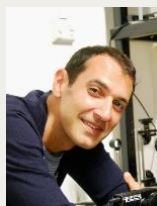
Lorry MAZZELLA - Extended-depth of field random illumination microscopy, EDF-RIM, provides super-resolved projective imaging. Institut FRESNEL

🔍 fluorescence microscopy, super-resolution, structured illumination

Ege KUCUKKOMURCU - : Compressed All-Optical Photoacoustic Imaging of Neuronal Activities in Mice. Institut FRESNEL

🔍 photoacoustic imaging, optical sensors, compressive sensing

RESEARCH SESSION – 2:30 PM



• **Ignacio IZEDDIN - Enhanced single-molecule localization microscopy with event-based vision sensors.**

Institut LANGEVIN, FRANCE

🔍 single-molecule microscopy; super-resolution fluorescence imaging; bioimaging



• **Lydia DANGLOT – 3D STED imaging of thick brain tissue : from neuronal tree to synapse.**
Université Paris Cité, FRANCE

🔍 Brain slice imaging, 3D STED, Clearing, Segmentation, Neuron, Spine

INDUSTRIAL SESSION – 4 PM



• **Romina MACCO - Large Field Of View, fast volumetric multiphoton imaging combined with optogenetics approaches.**

BRUKER, FRANCE

🔍 Multiphoton Imaging, Large FOV, Fast 3D Volumetric Devices, Photostimulation, Neuroscience



• **S. CUBELLS – TITLE.**

LEICA, France

🔍 x.



R&D Seminar Program

MR Imaging 7th of November

PLENARY SESSION – 9:30 AM



Magalie VIALON
CREATIS – INSA, Lyon, FRANCE.

Multi-organs' adaptation during long term fasting: the MRI & MRS GENESIS study.

🔍 MRI, MRS, heart, muscle, abdomen.

EXHIBITION Hall, POSTER SESSION – 10:30 AM



DOCTORAL SESSION – 1:30 PM

Charles BETEMPS - Optimizing parallel transmission for 7T MRI of the spinal cord with faster acquisitions and higher spatial resolution. CRMBM

🔍 7T MRI, parallel transmission, spinal cord, B1 inhomogeneity, ultra-high field, radiofrequency



Nisler LAINES MEDINA - Automatic Multiple Sclerosis Lesion Segmentation in the Spinal Cord on 3T and 7T MP2RAGE images. CRMBM

🔍 Multiple sclerosis, deep learning, spinal cord, lesion, segmentation



R&D Seminar Program

MR Imaging 7th of November

INDUSTRIAL SESSION – 2:30 PM



- **Thomas TROALEN - Scientific Collaboration in MRI at Siemens Healthineers.**

SIEMENS HEALTHINEERS, FRANCE

🔍 Diagnostic Imaging, Magnetic Resonance Imaging, Scientific Partnership, Neurology, Cardiology



- **Stephane ROCHE – Intracerebral iron & health data: diagnosis and monitoring of neurodegenerative diseases.**

VENTIO SAS, Marseille, France

🔍 Neurodegenerative disease, iron, health data, MRI, qsm.



- **Isabelle SANIOUR – Chipiron : Unlocking access to MRI using SQUID detection.**

CHIPIRON, France

🔍 Medical imaging, Ultra-Low Field MRI, SQUID, Quantum sensor, Gradiometer.

RESEARCH SESSION – 4 PM



- **Benjamin LEMASSON - Towards reliable reproducible and explainable MRI Biomarkers : combining advanced MR acquisitions and analysis.**

Univ. Grenoble Alpes, Inserm, U1216, Grenoble Institut Neurosciences, Grenoble, FRANCE

🔍 MR acquisition, MRfingerprint, brain lesions, IA, biomarkers

GALA Evening – Grotte COSQUER (5:45pm)

PRIVATE Visit of the COSQUER cave & Museum

Cocktail Reception & Awards

R&D Seminar Program

Mixed Imaging modalities

8th of November

PLENARY SESSION – 9:30 AM



Benoit LARRAT

TheraSonic, Paris, FRANCE

Drug delivery to the brain using acoustic cavitation : from the lab to the startup.



Ultrasound, MRI, blood-brain barrier, drug delivery, microbubbles

EXHIBITION Hall, POSTER SESSION – 10:30 AM



BEES

R&D Seminar Program

Mixed Imaging modalities 8th of November

RESEARCH SESSION – 1:30 PM



- **Alexis JACQUIER - development of AI tools in a university hospital department from innovation to clinical practice.**

Aix Marseille University, APHM, CRMBM, Marseille, FRANCE



AI, radiology, automatic segmentation, industrial partnership, innovation.



- **Christian BENAR – New sensors for magnetoencephalography: the optically pumped magnetometers.**

Aix Marseille University, INS, Marseille, France



magnetoencephalography, source imaging, epilepsy, cognition, brain networks.

INDUSTRIAL SESSION – 2:30 PM



- **Alessandro VIANI - TITLE**

BEES, ITALY



x



- **Harald BORNFLETH – BESA software: cutting-edge solutions in EEG, MEG, and OPM data analysis.**

BESA GmbH, Freihamer Str. 18, 82166 Graefelfing, GERMANY



neurophysiology, epilepsy, EEG, MEG, OPM.

CONCLUSION & CLOSING TALK

Monique BERNARD, Director of Marseille Imaging Institute