

Program

Wednesday September 25th

Arrival in the afternoon.

Registration opened at 17:30

18:30 **Opening of the workshop**

Organizing committee

18:35 - 18:45 **Presentation of the "Tumour targeting, Imaging, Radiotherapies network" of the Cancéropôle Grand Ouest**

Michel Chérel, CRCINA, UMR 1232 INSERM ERL CNRS 6001, University of Nantes, France.

18:45 - 19:05 *Sponsor communications*

"How to measure ligand interactions on living cells in real-time"
Hadis Honarvar, Ridgeview Instruments, Sweden

"MOLECUBES, presenting the CUBES: high-end preclinical imaging PET, SPET and CT systems and selected applications" – MOLECUBES - Belgium

19:05 - 20:00 **"PET and SPECT in cancer imaging"**

Invited speaker: **Bart Cornelissen, Radiopharmaceuticals and Molecular Imaging Group, Department of Oncology, University of Oxford, United-Kingdom**

20:15 *Dinner*

Thursday September 26th

Session 1: Contribution of imaging in diagnosis

9:00 - 9:30 **"The role of chelators in developing receptor-targeted radiopharmaceuticals: historical importance and future challenges"**

Invited speaker: **Michelle Ma, Imaging Chemistry & Biology Department, Kings College London, United-Kingdom.**

9:30 - 10:30 3 selected talks of young researchers

"Copper-64 PET Imaging Radiopharmaceuticals based on 1,4,7-Triazacyclononane Bifunctional Chelators for the Diagnostic of Prostate

Cancer

“

Axia Marlin, *Equipe COSM Chimie Organique Santé et Matériaux, UBO, UMR CNRS 6521 CEMCA, Brest, France.*

“AIF-18-Labeling and in vivo study of new AMP-based chelators for applications in Positron Emission Tomography Imaging“
Lisa Russelli, *Nuclear Medicine Department, Klinikum Rechts der Isar, Technical University of Munich, Munich, Germany.*

“A universal method for the radioiodination and astatination of antibodies: easy access to I/At based theranostic tools”
Marion Berdal, *CRCINA, Inserm, CNRS, Université de Nantes, Nantes, France.*

10:30 - 11:00 *Poster session & Coffee break*

11:00 - 12:00 3 selected talks of young researchers

“Towards the development of novel Zr89 chelators for use in PET imaging
“
Joseph Cowell, *Chimie ParisTech, CNRS, 75014, Paris, France.*

“Radiomics for Disease Free Survival prediction using pre-treatment FDG PET images”
Marta Ferreira, *GIGA-CRC in vivo Imaging, University of Liège, Liège, Belgium.*

“Automated cervical primary tumor functional volume segmentation in PET images“
Andrei Iantsen, *LaTIM, INSERM, UMR 1101, University Brest, Brest, France.*

12:00 - 12:10 **“EuroBioimaging: Open access to imaging facilities for the biomedical community”**
Giuseppe Digilio, *Department of Science and Technological Innovation, University of Eastern Piedmont “A. Avogadro”, Italy.*

12:10 - 12:15 *Sponsor communication*

“French networks for Cancerology and Nuclear Medecine: ILIAD SIRIC and IRON Labex”, Michel Chérel, *CRCINA, Nantes, France.*

12:20 Lunch

14:00 - 14:30 **“Diagnostic applications of vibrational imaging in oncology”**

Invited speaker: **Olivier Piot**, *BioSpecT (Translational BioSpectroscopy) EA 7506, Université de Reims Champagne-Ardenne, Reims, France.*

14:30 - 14:50 *Sponsor communications*

“High performance integrated PET, SPECT, Optical & X-ray Tomography”, **Tom van Rooij**, *MILabs, Utrecht, The Netherlands.*

Presentation of « Société Française du Cancer » and « Bulletin du Cancer ». **Stéphane Supiot**, *ICO & CRCINA, Saint-Herblain, France.*

14:50 - 15:50 3 selected talks of young researchers

“Concept, synthesis and radiolabelling of MCT1 and MCT4 iodinated inhibitors“

Leslie Bitard, *Université Clermont Auvergne, INSERM U1240 Imagerie Moléculaire et Stratégies Théranostiques, Clermont Ferrand, France.*

“On-demand self-assembling peptide amphiphiles for cancer“

Valentina Del Genio, *Department of Pharmacy, University of Naples Federico II, Naples, Italy.*

“In the Search of Aza-Macrocycles based PDT-Theranostic Probes”

Laura Abad Galán, *Laboratoire de Chimie ENS de Lyon, France.*

15:50 - 16:10 *Coffee break*

16:10 - 17:10 3 selected talks of young researchers

“A New Biocompatible Diphosphine-peptide Chelator: Attaching Peptides to Radioactive ^{99m}Tc(V) for Targeted SPECT Imaging of Disease“
Ingebjørg N. Hungnes, *King's College London, London, United-Kingdom.*

“Self-assemblies: in vivo activities on lung cancer”
Abdallah Ladaycia, *Micro et Nanomedecines Translationnelles, MINT, UNIV Angers, UMR INSERM 1066, UMR CNRS 6021, Angers, France.*

“GATG Dendrimer and Dendrimer based Polyion Complex (PIC) micelle for SPECT/MRI diagnostic”
Ulung Khoe, *GLIAD team, CRCINA, INSERM 1232 and Plateforme de Radiobiologie et d’IMagerie EXpérimentale, PRIMEX, SFR ICAT 4208, Université Angers, UMR-S1066, Angers, France.*

Focus on Ultrasound Imaging

17:10 - 17:35 “Photoacoustics imaging: Principle and applications in oncology”.

Jean-Michel Escoffre, *Imaging and Brain, UMR INSERM 1253, Tours, France.*

17:35 - 18:00 “Value of Contrast-Enhanced Ultrasound Quantification Criteria for Identifying Patients not Responding to Bevacizumab-Based Therapy for Colorectal Liver Metastases”

Paul-Armand Dujardin, *Clinical Investigation Center - Technological Innovation, CHRU, Tours, France.*

20:00 *Dinner*

Friday September 27th

Session 2: Contribution of imaging in therapeutic follow-up and evaluation

9:00 - 9:30 “Metal Complexes as Diagnostics and Therapeutics”

Invited speaker: **Gilles Gasser**, *Laboratory for Inorganic Chemical Biology, Chimie ParisTech, PSL University, Paris, France.*

9:30 - 10:30 3 selected talks of young researchers

“New channels for mass cytometry by improving metal chelate inertness”
Laura Grenier, *UBO, UFR Sciences, IBSAM, UMR CNRS 6521 « Chimie Electrochimie Moléculaires et Chimie Analytique », Brest, France.*

“Influence of trastuzumab co-treatment on GRPR-targeted therapy of prostate cancer”
Bogdan Mitran, *Department of Medicinal Chemistry, Uppsala University, Sweden.*

“Development and Evaluation of Nanosystems for Photodynamic Therapy Triggered by Bioluminescence”
Marcelina Abal-Sanisidro, *Nano-oncology Unit. Health Research Institute of Santiago de Compostela (IDIS), Santiago de Compostela, Spain.*

10:30 - 11:00 *Poster session & Coffee break*

11:00 - 12:00 3 selected talks of young researchers

“Therapeutic use of siRNA complexed with dendrimers”
Kamila Białkowska, *Department of General Biophysics, Faculty of Biology and Environmental Protection, University of Lodz & Molecular and Nanostructural Biophysics Laboratory, Poland.*

“Radioluminescent BODIPY-conjugated nanomaterials: towards the activation of PDT in deep tissue and during radiation therapy”
Carlotta Figliola, *Laboratoire de Chimie, Ecole Normale Supérieure in Lyon, UMR 5182, Lyon, France.*

“Elaboration of nanocarriers based on poly (β -malic acid) derivatives to encapsulate radionuclides for diagnostic or/and treatment of hepatocellular carcinoma”
Clarisse Brossard, *Univ Rennes, Ecole Nationale Supérieure de Chimie de Rennes, CNRS, ISCR – UMR 6226 & Univ Rennes, Inserm, INRA, Institut NUMECAN (Nutrition Metabolisms and Cancer), UMR_A 1341, UMR_S 1241, Rennes, France.*

12:15 *Lunch*

14:00 - 14:30 **“Focus on therapeutic monitoring by FDG PET for solid tumours”**

Invited speaker: **Caroline Rousseau**, *Nuclear Medicine Department, ICO, integrated Center for Oncology, Nantes, France.*

14:30 - 15:30 3 selected talks of young researchers

“A receptor amenable to a theranostic approach in ovarian cancer”
Tashbib Khan, *Mater Research Institute – The University of Queensland, Translational Research Institute, & Mater Ovarian Cancer Research Collaborative, Mater Adult Hospital, South Brisbane, Queensland, Australia.*

“Novel morphological imaging biomarkers and prognostic mathematical models in glioblastoma”
Julián Pérez-Beteta, *Mathematical Oncology Laboratory (Môlab), University of Castilla-La Mancha, Spain.*

“A microstructural dosimetry model for the investigation of SIRT treatment”
Federico Budelli, Veronica Carcereri, *Université de Rennes 1, LTSI, INSERM, U1099, Rennes, France & Laboratory of Biological Structure Mechanics (LaBS), Department of Chemistry, Materials and Chemical Engineering “Giulio Natta”, Politecnico di Milano, Milan, Italy.*

15:30 - 16:00 *Coffee break*

16:00 - 17:00 3 selected talks of young researchers

“Development of a CT based radiomic model predictive of non-response to induction chemotherapy for laryngeal cancers”
Ingrid Masson, *LaTIM, INSERM, UMR 1101, Univ Brest, IBSAM, Brest, France.*

“Identification of protein targets for the development of cancer theranostic agents”
Thomas Kryza, *Mater Research Institute, The University of Queensland, Translational Research Institute, Brisbane, Australia.*

“Improving the Stability of a Sialidase-Activated Fluorescence Probe for the Visualisation of Lung Cancer”
Charlotte Rivas, *Department of Imaging Chemistry and Biology, King’s College London, United-Kingdom.*

17:00 *Social event*

Saturday September 28th

Session 3: Emerging imaging technologies

8:30 - 9:00 **“Recent technological developments in PET imaging”**

Invited speaker: **Dimitris Visvikis**, *LaTIM, National Institute of Health & Clinical Sciences, Brest, France.*

9:00 - 9:30 **"Targeting changes in the glycocalyx in the circulatory system using lanthanide complexes"**

Invited speaker: **Thomas Just Sorensen**, *Nano-Science Center & Department of Chemistry, University of Copenhagen, Denmark.*

9:30 - 10:30 3 selected talks of young researchers

"Standardization of MTV computation: acquisition time and segmentation algorithm matter"

Anna Borra, *Nuclear Medicine Department, University of Genoa, Italy.*

"Prognostic models based on imaging findings in glioblastoma: Human versus Machine"

David Molina-García, *Mathematical Oncology Laboratory (Môlab), University of Castilla-La Mancha, Spain.*

"CT lung segmentation using adaptive thresholding"

Fadila Zerka, *The-D Lab, Precision Medicine, GROW - School for Oncology and Developmental Biology, Maastricht University Medical Centre, Maastricht, The Netherlands & Oncoradiomics SA, Liège, Belgium.*

10:30 - 10:45 *Coffee break*

10:45 - 11:45 3 selected talks of young researchers

"Prognostic value of stable CT-based radiomic features independent of contrast administration and dimensionality in oesophageal cancer patients"

Concetta Piazzese, *School of Engineering, Cardiff University & Velindre Cancer Centre Cardiff, United Kingdom.*

"Radiomic feature preselection to improve survival prediction after radiotherapy for hepatocellular carcinoma"

Pierre Fontaine, *Rennes, CLCC Eugene Marquis, INSERM, LTSI - UMR 1099, Rennes, France & University of Applied Sciences Western Switzerland (HES-SO), Sierre, Switzerland.*

"Deep Convolutional Neural Network to predict 1p19q co-deletion and IDH1 mutation status from MRI in Low Grade Gliomas"

Sarah Rosas González, *UMR U1253 iBrain, Université de Tours, Inserm, Tours, France.*

12:00 *Lunch*

13:10 *End of the workshop - Departure*