



Belgian Molecular Imaging Congress 2019

Scientific Program

8.55 - 9.05 **Welcome**

9.05 - 9.30 **Scientific Session 1: Contrast Agents**

Emilie Hequet (UMONS) *Fluorinated paramagnetic contrast agents – Study of the paramagnetic effect from diverse lanthanide ions (Gd³⁺, Dy³⁺, Tb³⁺, Eu³⁺) on fluorine relaxation times*

Thomas Vangijzegem (UMONS) *PEGylated iron oxide nanoparticles : evidence of their potential as T1 contrast agents for magnetic resonance imaging*

9.30 - 10.30 **Workshop by “The Floor is Yours”: How to Present Your Research with Impact**

10.30 - 11.00 **Poster Pitches part 1 (number 1-7)**

11.00 - 11.30 **Break**

11.30 - 12.00 **Poster Pitches part 2 (number 8-15)**

12.00 - 12.10 **Sponsor talk 1: Perkin Elmer**

12.10 - 13.00 **Scientific Session 2: Novel technologies, Methodologies and Modalities**

Masoud Elhamiasl (KU Leuven) *Simulating lower-dose scans from an available high-dose CT scan*

Sara Neyt (MOLECUBES) *Molecular PET-CT imaging for evaluation of liver function and volume in a hepatectomy mouse model*

Marco Erreni (Humanitas Clinical and Research Center, Milan, Italy) *Nanobody-Based Imaging of Macrophage Mannose Receptor-expressing Tumor-Associated Macrophages by Fluorescence Molecular Tomography*

13.00 - 13.30 **Lunch**

13.30 - 14.30 **Poster session with poster dating**

14.30 - 15.30 Scientific Session 3: Oncology

- Lucas Beroske (UAntwerpen) *Development and evaluation of selective PET probes for imaging of caspase-3 activity.*
- Stefania Acciaro (UC Louvain) *¹³C label exchange between hyperpolarized pyruvate and lactate may help to discriminate between BRAFi-sensitive and -resistant melanoma cells*
- Shuncong Wang (KU Leuven) *CA4P induced necrosis in micro-cancers elicits a strategy for early eradication of malignancies?*
- Lionel Mignon (UC Louvain) *Hyperpolarized pyruvate-lactate exchange assesses metabolic shift in response to the EGFR inhibitor cetuximab in sensitive but not in resistant patient-derived HNSCC xenografts*

15.30 - 15.40 Sponsor talk 2: MILABS

15.40 - 16.10 Break

16.10 - 17.15 Scientific Session 4: Neurology

- Inès Ben-Nejma (UAntwerpen) *Longitudinal in vivo MRI assessment of functional connectivity reveals early pathological hypersynchronisation of brain networks in the inducible Tet-off APP mouse model of Alzheimer's disease*
- Kim Braeckman (UGent) *Longitudinal DTI changes following cognitive training therapy in a mild traumatic brain injury rat model*
- Monica van den Berg (UAntwerpen) *In vivo assessment of glymphatic clearance - Changes in waste drainage in Alzheimer's Disease*
- Yvonne E. Klingl (KU Leuven) *Effects of chronic alcohol self-administration on striatal phosphodiesterase 10A availability*
- Nicolas Vidas-Guscic (UAntwerpen) *In vivo fMRI in songbirds reveals that auditory processing of vocalizations is influenced by behavioral relevance, sex and hormonal status of the receiver*

17.15 - 17.30 Closing + Awards

17.30 - 18.30 Reception

18.30-21.00 Diner

Poster presentations

1. Lucas Bonnaerens (UGent)
Discrimination between glioblastoma and radionecrosis using preclinical [18F]FET, 2-[18F]FELP and [18F]FDG PET in rats.
2. Quentin Lecocq (VUB)
Single domain antibody-mediated imaging of the mouse immune checkpoint LAG-3
3. Maleotane Ndiaye (UMONS)
Synthesis of paramagnetic dendrimers for the detection of atherosclerosis plaque
4. Louise Dedeine (UGent)
In vitro and in vivo evaluation of 2-[18F]FELP in peripheral tumors.
5. Joren Vandegaer (KU Leuven)
Retrospectively reconstructed cardiac MRI and PET images using simultaneously self-gated respiratory and cardiac signal in rodents.
6. Erwann Letort (Noordwest Ziekenhuis, Alkmaar, The Netherlands)
F18-DOPA uptake quantification in striata with PMOD for patient not suffering neurodegenerative disease.
7. Marie Devreux (UMONS)
Synthesis of a manganese magnetic resonance imaging contrast agent based on pyclen structure.
8. Gert-Jan Dossche (UGent)
The effect of repeated subanaesthetic ketamine infusions on the regional cerebral glucose consumption in a rat depression model.
9. Bram Carlier (KU Leuven)
Multimodal phase-change contrast agents: a novel tool for proton range verification?
10. Rania Aro (UMONS)
Evaluating the neurotoxicity of Harmane, the beta-carboline alkaloid incriminated in Essential Tremor by using 3D neurons model.
11. Aranit Harizaj (UGent)
Avoiding gadolinium quenching through photoporation for enhanced magnetic resonance imaging of cells
12. Maria Elisa Serrano Navacerrada (ULiège)
Exploring the in vivo relationship between the number of seizures, synaptic density, and brain metabolism at the chronic phase of epilepsy
13. Rita Ribeiro (VUB)
Radiolabeling of nanobodies for pre-clinical imaging of a new beta-cell biomarker - Dypeptidil Peptidase (DPP6).

14. Masoomeh Rahimpour (KU Leuven)

Convolutional Neural Network for brain tumor segmentation using different combinations of MRI data

15. Lien Luca (UGent)

Further optimization of automated radiosynthesis of [18F]PSMA-11



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