CME Session 14
Drug Development + Translational Molecular Imaging & Therapy Committee
Saturday, October 23, 10:45-12:15

Session Title
Probing Tumour Metabolism - An Update

Chairperson
Luigi Aloj (Cambridge, United Kingdom)

Programme
10:45 - 11:14 Francesco Iommelli (Naples, Italy): Imaging Nucleoside Transport for Monitoring Targeted Therapy in Cancer
11:14 - 11:43 David Lewis (Glasgow, United Kingdom): Illuminating Metabolic Heterogeneity and Vulnerabilities in Lung Cancer
11:43 - 12:12 Ferdia Gallagher (Cambridge, United Kingdom): Imaging Tumour Metabolism and its Heterogeneity with MRI
12:12 - 12:15 Session Summary by Chairperson

Educational Objectives
1. Give an update on the use of nucleoside transport imaging to characterise response to cancer treatment
2. Give an update on imaging of fatty acid synthesis to characterise lung cancer
3. Give an update on progress of the use of $^{13}$C hyperpolarised MRI in cancer

Summary
Multiple aspects of metabolism are modified in the development and progression of cancer. The study of metabolism constitutes a subject area of intense scrutiny for the use of dedicated imaging methods to exploit for clinical use. As novel treatments addressing specific biochemical properties of cancer are developed and implemented, the role and potential of metabolic imaging for general clinical application in this field is moving beyond the use of the well-established FDG-PET. This CME session will focus on new data available in PET imaging of nucleoside transport, PET imaging of fatty acid metabolism and recent advances in the use of hyperpolarised compounds used for cancer imaging with MRI.

Key Words
Cancer, metabolism, fatty acids, nucleosides, PET, hyperpolarized $^{13}$C MRI