

Wednesday, 6<sup>th</sup> November, 12.00 pm, Seminar Room

*Host: Dr. Jesús Ruiz-Cabello*

## **Metabolic-based improvements in biomedical imaging: Enhanced PET imaging in atherogenesis**

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Resident and organ-infiltrated macrophages under pathological conditions possess metabolic singularities that can be used to evaluate the inflammatory response associated to a given pathology circumstance, from cardiovascular diseases to cancer. Due to its plasticity, macrophage metabolism can be modified through various factors with a high degree of specificity, which in addition to altering their function, constitutes a complementary strategy to regulate their participation in inflammation and to recruit other myeloid and lymphoid cells. In this context, we have investigated the role of macrophages in the development of atherogenesis and the diagnosis by molecular imaging, as well as their contribution to plaque stability. These studies have allowed us to develop new strategies to evaluate atheromas with different radiotracers, as well as to stabilize atherogenic lesions using specific metabolic stimuli for activated macrophages.