**UMR Inserm 1240 IMoST : Molecular Imaging and thranostics strategies, UCA, Dr Elisabeth Miot-Noirault.**

**Director of thesis: Pr M D’INCAN/ Dr J ROUANET**

**Targeted radionuclide therapy and immune checkpoint inhibitors for the management of metastatic melanoma**

Although the management of metastatic melanoma has benefited from considerable advances in recent years, there are still a number of clinical situations in which tumour resistances to treatment are observed. They would thus require the development and validation of new therapeutic strategies. The need to understand the involvement of the tumour immune response to treatments now appears to be one of the keys to a personalized approach in oncology. This planned thesis project proposes to demonstrate the interest of an approach combining targeted radionuclide therapy (TRT) targeting pigmented melanoma (approach developed by our unit and currently in Phase I clinical transfer) with immunomodulation. The project will consist of comparing the results of expression of immunogenic death markers associated with TRT and TRT-immunotherapy combination protocols obtained from preclinical in vitro and in vivo studies. Biopsies will also be taken from patients included in the TRT clinical study by the ancillary study to assess markers of immunogenic death.

References :

Jouberton et al., Med Physics 2018, 45 (11) : 5251-5262

Cachin et al., J Nucl Med 2014, 55 (1) : 15-55