

## **Tumor biology and translation research in the context of chest malignancies**

Prof. Jean Perentes

### **Abstract:**

We have recently found, in pre-clinical models, that the local application of hyperthermic chemotherapy on pleural carcinosis could induce an immune mediated response against the cancer that could be further potentiated by immune checkpoint blockade. Building upon these findings, we have initiated in November 2023, at CHUV, a phase I clinical trial entitled PITHAC (pressurized intrapleural aerosol chemotherapy, NCT06281860). The aim of this trial is to determine the feasibility and toxicity of a local hyperthermic chemotherapy approach in patients bearing pleural carcinosis. In this project, we would like to take advantage of this trial and understand, as a translational output, the impact on antitumor immunity of PITHAC in patients. For this, we plan to fill this gap of knowledge by deciphering of tumor neoantigen landscape after PITHAC and associated T cell specific response.