Prof Mavilio D.

The main purpose of the present project of translational immunology is to study the relationship(s) between human ovarian cancer and immune cells during tumour growth and progression towards malignancy. Focusing on the tumor cells, multilevel analysis genomic, epigenetic and transcriptomic data will be performed and integrated into pathway-based approaches to define the main routes of tumor progression. Focusing on the immune cells, this project will explore comprehensive phenotypical, molecular and functional characterization of both blood and tumor infiltrating conventional CD4, CD8 T lymphocytes, unconventional γδ T cells and innate NK cells, DC cells and macrophages according to the progression of disease. We expect that an integrated analysis of the main features of cancer and immune cells will provide a comprehensive map of tumour microenvironment to design novel approaches to treatment.