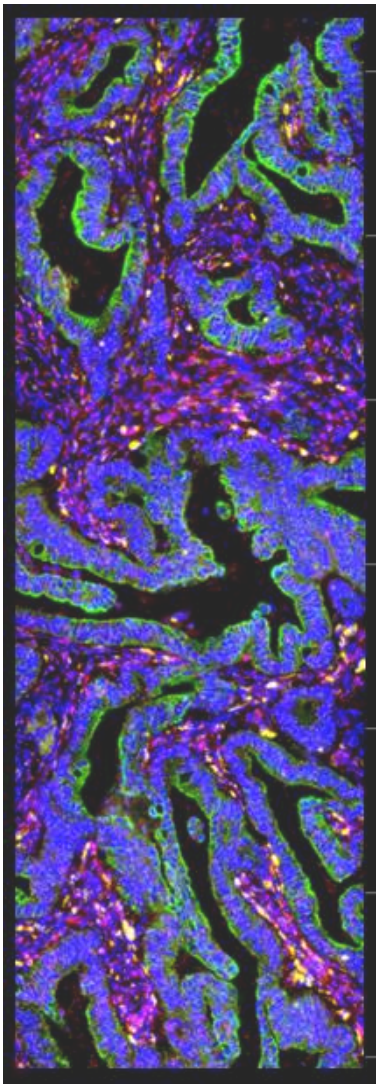
Dottorato di Ricerca:
Patologie infiammatorie e infettive, Strategie terapeutiche e Biodiritto

A.D. 1308 unipg
DIPARTIMENTO DI MEDICINA E CHIRURGIA

SEMINAR

"High-resolution transcriptomics techniques as proficient tools to study Unconventional T cells in gut homeostasis and disease"



Abstract:
"The immune system is organized in a complex manner and characterized by various cell types and states that coexist simultaneously. Studying the mechanisms and genes involved is essential to understanding the importance of the immune system. The use of high-throughput, high-resolution omics technologies, and particularly transcriptomics, is creating opportunities to complement standard immunological methods with new insights into immune-system dynamics.
During this seminar, a specific case study on Unconventional T cells including invariant natural killer T (iNKT) cells will be presented.
iNKT cells are uniquely positioned since microbiota-derived signals profoundly shapes their development and functional plasticity. Here, we summarise the contribution of iNKT cells to colorectal cancer (CRC) pathophysiology in patients with a previous history of IBD and the effect of the tumor-associated microbiota in shaping their pro- or anti- tumorigenic functions. To this aim, high-dimensional single-cell flow cytometry, metagenomics, spatial transcriptomics, ex-vivo and in-vitro experiments has been performed to evaluate the phenotype and function of human iNKT cells. Finally, we will show some potential therapeutic approches supporting the targeted manipulation of iNKT cell functions to improve cancer immunotherapies and adoptive cell therapies based on the use of these cells."

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Guest of Prof. Teresa Zelante

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ore 10.00
Aula 4, Edificio B
Piano -2
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