## **ISTITUTO PASTEUR ITALIA SEMINAR**



SSAS, Building D, AULA 201 (2 Piano)

## **Dr David Withers PhD**



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## Understanding where, how and why immune cells become altered in the response to cancer

Utilising tumour implantation into photoconvertible mice, we have established approaches to temporally label the entire immune compartment of tumours. This allows direct assessment of cellular ingress and egress in tumours. Crucially, photolabeling also enables us to capture how cells change in real time within the tumour microenvironment. Utilising a combination of single-cell RNA-sequencing and flow cytometric analyses, we have interrogated the fate of different lymphocyte populations after tumour entry. These data have revealed new insight into the migratory capacity of T cell subsets, the rate at which different immune cells adapt to the tumour environment and how different intratumoural populations are sustained.



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