

## **Talk Title**

### **The B cell antigen receptor as fitness determinant in aggressive**

## **STEFANO CASOLA**

Stefano Casola is a molecular oncologist specialized in studying the mechanisms controlling B lymphocyte differentiation and malignant B cell transformation.

After receiving his MD and PhD degrees from the University Federico II of Naples, he joined the Institute of Genetics at the University of Cologne in Germany as post-doctoral fellow, working in the group of immunologist K. Rajewsky. Here, he developed a method to conditionally inactivate genes in germinal center B cells to ultimately study their role in B cell immune responses and lymphomagenesis. He also developed mouse models to study the role of Epstein Barr Virus encoded proteins in the pathogenesis of Hodgkin lymphoma.

After his postdoc experience, Casola moved on to the Harvard Medical School in Boston becoming Junior Investigator at the CBR Institute for Biomedical Research and Instructor in the Department of Pathology, Harvard Medical School. In 2006, he returned to Italy thanks to the Armenise Harvard Career Development Award and to the Italian Foundation for Cancer Research, to lead his own group at the FIRC Institute of Molecular Oncology (IFOM) in Milan. There he set up the research program on Genetics of B cells and lymphomas.

Applying genome-editing tools to pre-clinical mouse and human models, together with genomic and epigenomic analyses on human lymphomas, the Casola group is interested to identify the major genetic and epigenetic determinants controlling germinal center B cell physiology and malignant B cell transformation. The ultimate goal is to apply this knowledge to improve current treatments of malignant B cell neoplasia.