HUMANITAS
RESEARCH HOSPITAL

Research assistant – T cell genome integrity in human cancer
Lugli Lab, Humanitas Research Hospital, Milan, Italy

We are recruiting at all levels of seniority (postgraduate, PhD, postdoc) to join our lab at the Humanitas Research Hospital to study the role of genome integrity in memory T cell differentiation and immunosuppression. Humanitas hosts a scientific community of more than 300 scientists with interests ranging from immunology to genomics, cardiovascular biology and neurobiology and is one of the most visible and expanding research centers in Italy.

We have identified novel molecular signals regulating the genome integrity of stem-like T cells and regulatory CD4+ T cells (Tregs) in the tumor microenvironment that we want to manipulate, so to obtain long-lived T cell responses that are resistant to immunosuppression. Several human samples from cancer patients are routinely available for this purpose thanks to collaborations with the Humanitas Hospital. The Lab is specialized in the identification and characterization of novel lymphocyte subsets by using high-dimensional single cell analysis, and advanced bioinformatics. Access to Humanitas facilities (flow cytometry, genomics, microscopy, histology, tissue mass cytometry, metabolomics, BSL-3, SPF mouse house, grant office) will be granted. The position is available for up to **5 years**.

The optimal candidate would have experience in molecular biology, DNA technology, immunology, biotechnology or related disciplines. **Background in molecular biology is preferable but is considered a plus.** Candidates not residing in Italy are eligible to 50% tax discount per Italian law.

To apply, please send a motivation letter explaining **why you want to join our lab**, a 2-page CV (no Europass format), and the contact information (or letters of recommendation) of at least two referees to Dr. Enrico Lugli (enrico.lugli@humanitasresearch.it).

Selected references

1. Whiteside SK, et al. Acquisition of suppressive function by conventional T cells limits antitumor immunity upon T(reg) depletion. ***Science immunology***. 2023;8(90):eabo5558.
2. Alvisi G, et al. Multimodal single-cell profiling of intrahepatic cholangiocarcinoma defines hyperactivated Tregs as a potential therapeutic target. ***J Hepatol***. 2022;77(5):1359-1372.
3. Galletti G, et al. Two subsets of stem-like CD8(+) memory T cell progenitors with distinct fate commitments in humans. ***Nat Immunol.*** 2020. *Accompanying commentary by Chu et al "Two parallel worlds of memory T cells".*
4. Alvisi G, et al. IRF4 instructs effector Treg differentiation and immune suppression in human cancer. ***J Clin Invest.*** 2020;130(6):3137-50.