



A post-doc position is available in the laboratory of Prof. Leonardo Elia at Humanitas Research Hospital to work on the field of epigenetics and cardiovascular diseases. Research work in our laboratory integrates basic and clinical research through a translational approach. The position is for one year, renewable.

We mainly focus on the identification of new molecular pathways regulating vascular smooth muscle and endothelial cell biology, and in which DNA methylation, histone modifications, and non-coding RNAs expression play a major role. In order to achieve these goals, we employ methodologies such as DNA/RNA sequencing, single-cell analysis, molecular and cellular biology, high-end molecular imaging and *in vivo* models of vascular diseases.

The relevance of our bench findings is then further investigated in translational studies, with the ultimate scope to find innovative approaches to treat vascular pathologies.

Key recent references from the lab

- Farina F et al. "miR-128-3p is a novel regulator of vascular smooth muscle cell phenotypic switch and vascular diseases". **Circulation Research**, **2020**; 126:e120–e135. doi.org/10.1161/CIRCRESAHA.120.316489.
- Hall IF et al. "Circ_Lrp6, a circular RNA enriched in smooth muscle cells, acts as a sponge regulating miRNA-145 function". **Circulation Research**, **2019**; doi.org/10.1161/CIRCRESAHA.118.314240.
- Stratton MS et al. "Epigenetics and vascular diseases." **Journal of Molecular and Cellular Cardiology**, **2019**; doi.org/10.1016/j.yjmcc.2019.06.010.
- Elia L et al. "UHRF1 epigenetically orchestrates smooth muscle cell plasticity in arterial disease". **Journal of Clinical Investigation**, **2018**; doi.org/10.1172/JCI96121.
- Climent M et al. "TGF β triggers miR-143/145 transfer from smooth muscle cells to endothelial cells, thereby modulating vessel stabilization". **Circulation Research**, **2015**; doi:10.1161/CIRCRESAHA.116.305178.

Eligibility criteria

PhD degree in Biochemistry, Biotechnology, Chemistry, Pharmaceutical Sciences, or related fields; Previous research experience in cell biology, molecular biology and animal handling is required.

To apply

Please send your application including a Curriculum vitae, and at least one contact for reference by email to: leonardo.elia@humanitasresearch.it or leonardo.elia@unibs.it

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<https://www.humanitas-research.org/groups/leonardo-elia/>
<https://www.unibs.it/ugov/person/154717>