

Salvatore Oliviero

Professor in Molecular Biology at the University of Torino and head of the Laboratory of Epigenetomics at the Italian Institute for Genomic Medicine (IIGM) in Candiolo. Between 1985 and 1988 at EMBL (Heidelberg, Germany) as PhD student he identified and characterized the inflammatory response of Interleukin-6 in the acute phase genes. From 1988 to 1992 at Harvard Medical School (Boston, USA) as postdoctoral fellow identified the contribution of c-Fos to cellular transformation. From 1992 to 2012 at the University of Siena his laboratory studied the regulation of genes involved in cell transformation and angiogenesis. Identified and characterized several Fos-target genes involved in tumorigenesis including the identification of a new vascular endothelial angiogenic growth factor (VEGF-D). His laboratory unveiled the molecular mechanism by which MYC induces the elongation step of the transcription by mediating the recruitment of P-TEFb on the chromatin of MYC-target genes. From 2010 at HuGeF in Torino (now IIGM) and from 2013 at the University of Torino developed two research lines. One concerning the study of the RNA structure. One focusing on the regulation and function of DNA methylation in embryonic stem cells and in tumours. The main results of these studies led to the dissection of the functional interplay between the DNMTs and the Polycomb PRC2 complex to regulate the DNA methylation of developmental genes. The characterization of the DNA methylation dynamics of highly expressed genes, the clarification of the functional role of intragenic DNA methylation. More recently his laboratory is focused on the function of epigenetic modifications that regulate the early steps of embryonic development.