

Short profile

Paolo Maiuri is a biophysicist with experience in quantitative biology. He conducted studies in different fields of research, from HIV transcription to single cell migration. The main interest of his recently established laboratory is to investigate the interplay between cell architecture and nuclear organization. The spatiotemporal organization of the genome in the nucleus of eukaryotic cells is dynamic and contributes to the regulation of gene expression, but how does it respond to the changes of cell morphology is an unexplored area of research. We wish therefore to study if and how physical cues that affect cell morphology could also influence the three-dimensional organization of the nucleus leading to changes of gene expression patterns. Understanding cell morphology-induced changes of nuclear chromatin is of importance not only to understand the fundamental relationship between cell geometry and gene expression but also to elucidate its possible implication in diseases.