

PhD position available in the Buonomo lab

<http://buonomo.bio.ed.ac.uk>



THE UNIVERSITY of EDINBURGH
School of Biological Sciences

The role of the “junk DNA” in organising nuclear architecture and controlling DNA replication

A substantial proportion of our genomes comprises of DNA originating from what used to be viruses, now stably integrated. The host cells have hijacked these elements, transforming them into key players of the regulatory landscape. A large class of these elements is represented by the Endogenous Retro Viruses (ERVs). Their function in modulating gene expression, especially during early embryonic development, is well-known. Little is known, however, of their influence on genome architecture and of their potential role in the regulation of the timing of DNA replication. The aim of the project is to start exploring these fascinating and little-understood areas.

If you are interested in cell cycle, DNA replication, nuclear organization, chromosome biology and want to work with mammalian primary and stem cells join our group. We employ cutting edge technology such as genome-wide analysis of chromatin contacts (3C-derivatives), chromatin immunoprecipitation, RNA-seq profiling of gene expression and deep-sequencing-based replication-timing analysis. We also use confocal microscopy and live-imaging techniques. We are looking for enthusiastic, flexible and hard-working candidates driven by curiosity and passion for science. Basic knowledge of cell/molecular biology and ability to work in English, in an international environment are required

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