



## Post-doctoral position in Evolutionary Epigenomics

The Molaro Lab - [Evolutionary Epigenomics and Genetic Conflicts](#) - is seeking postdoctoral candidates to investigate the function of short H2A histone variants during mouse reproduction.

**Funded for 1 year renewable once, extensible upon funding.**

### Who we are

Our team studies how genetic conflicts shape the evolution and function of the epigenome. We combine phylogenetic approaches with *in vivo* epigenome profiling to identify genetic innovations in chromatin pathways and characterize their function (e.g. see Molaro *et al.*, *Genome Research*, 2018; *Mol. Biol. Evol.*, 2020). We study these questions in normal and pathological contexts, using mouse models and mammalian tissue culture (e.g. see Molaro *et al.*, *PLoS Biology*, 2020; Chew *et al.*, *Nature Comm.*, 2021).

Our lab is located at the Genetics, Reproduction and Development Institute (iGReD), in [Clermont-Ferrand, France](#).

### Proposed project

We recently identified the histone variant H2A.B as a novel parental-effect gene in mouse. Absence of parental H2A.B leads to reduced zygote viability and delays embryo growth. Yet, how H2A.B carries this post-fertilization effect remains unknown. The postdoctoral fellow will investigate the nature of H2A.B “imprinting” function by applying tools such as: epigenomic profiling, single cell transcriptomics and mouse genetics.

The candidate will benefit from the highly collaborative and inclusive environment of the iGReD, our state-of-the-art platforms (single cell; microscopy; histology) and the support from our regional partners. We provide a secured 2-year salary (1 year renewable once) with full benefits.

### Candidate profile

- Prior training recommended in: Developmental Biology, Genomics and/or Chromatin Biology
- Scientific interest: Evolution and Epigenomics
- The candidate will be encouraged to apply for independent funding as a postdoctoral fellow.

We encourage applications from all backgrounds and genders.

### Application details:

- Reviewing applications until **October 2021** for a start date as early as possible.
- Please contact Dr. Antoine Molaro – [antoine.molaro@uca.fr](mailto:antoine.molaro@uca.fr) - with the following:
  - o CV
  - o Cover letter/e-mail (1 page)
  - o Contact details of 2 professional references