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 - with the following:
  o CV
  o Cover letter/e-mail (1 page)
  o Contact details of 2 professional references