



The Bonasio Lab



PENN EPIGENETICS INSTITUTE

POSTDOCTORAL FELLOW POSITION BONASIO LAB (PENN EPIGENETICS INSTITUTE, PHILADELPHIA)

The [Bonasio Lab](#) is looking for a postdoctoral fellow to join their team at the University of Pennsylvania Perelman School of Medicine. The position is available immediately (June 2022) and fully funded.

Research directions

The Bonasio Lab studies epigenetic memory. We are interested in the molecular mechanisms by which stable patterns of gene expression are established and maintained during development and how these same mechanism contribute to brain function and behavior. Some of our past work has explored how protein–RNA interactions regulate the function of chromatin modifiers, the mechanism by which *Polycomb* chooses new genes to silence, and how a transcription factor expressed in the brain maintains the social boundaries between workers and queens in ants.

Approach

We take a multi-disciplinary and multi-model approach that is heavy in functional genomics and ranges from old-school biochemistry to behavioral assays. Whatever technique we might need to answer interesting questions, we will use it. If the technique does not exist, we will invent it. We like mouse embryonic stem cells for our mechanistic work because their genomes are an open book, they grow fast, and can be easily persuaded to become different cell types. We also like conventional and less-conventional model organisms to study the brain. We have flies, ants, and planarians. If it has a brain that does interesting things, we will consider studying it.

Candidate requirements

You already know this part. If you have a Ph.D. in biology broadly speaking, like interesting questions, and love basic research, you are qualified. Previous experience in epigenetics or neuroscience is not required but it would be better if you know (or are willing to learn) some bioinformatics, as we do it all by ourselves.

More information

For recent [publications](#) from the lab see:

- [Gospocic et al, Cell 2021](#). *Kr-h1 maintains distinct caste-specific neurotranscriptomes in response to socially regulated hormones.*
- [Petracovici and Bonasio, Mol Cell 2021](#). *Distinct PRC2 subunits regulate maintenance and establishment of Polycomb repression during differentiation.*
- [He et al, Nat Struct Mol Biol 2021](#). *TET2 chemically modifies tRNAs and regulates tRNA fragment levels.*

Contact

If interested please write to roberto@bonasiolab.org.