



NATIONAL CANCER INSTITUTE
Center for Cancer Research

Postdoctoral position in Embryonic Stem Cell Biology and Early Embryonic Development

We offer one fully funded postdoctoral position up to five years in the Laboratory of Genome Integrity located at the National Institutes of Health (NIH, Bethesda, MD). NIH is the largest biomedical research agency in the world, fosters world-renowned researchers and provides access to state-of-the-art innovative technologies and scientific resources.

Our laboratory uses human and mouse embryonic stem cells (ESCs) as well as mouse embryos to understand the molecular mechanisms underlying cell fate decisions. The applicant should have or about to have a PhD in Developmental Biology, Genetics, Molecular Biology or similar, and must have demonstrated expertise on molecular biology/mammalian cell culture (preferably in embryonic stem cells). Knowledge in mouse embryology, single-cell RNAseq, chromatin architecture and/or next generation sequencing technologies will be considered as an advantage.

The applicant will be involved in a variety of exciting projects ranging from studying the relation between **cell plasticity/totipotency and chromatin architecture** to exploring the underlying mechanisms of **new regulators of Zygotic Genome Activation**. We seek a highly motivated, creative individual, eager to learn and develop new technologies and complex cell systems based on live cell/embryo imaging, single-cell technologies and CRISPR-based editing interested in understanding how a single cell can develop into a complex multicellular organism *in vitro* and *in vivo*.

Please send a brief cover letter and CV via e-mail to:

Email: sergio.ruizmacias@nih.gov

Laboratory web: <https://ccr.cancer.gov/Laboratory-of-Genome-Integrity/sergio-ruiz-macias>

Recent publications:

- Vega-Sendino, et al (2021) The ETS Transcription Factor ERF controls the exit from the naïve pluripotent state. *Sciences Advances*, 7(40): eabg8306.
- Olbrich, T., et al (2021) CTCF is a barrier for 2C-like reprogramming. *Nature Communications* **12**, article number: 4856.
- Markiewicz-Potoczny, M., et al (2020) TRF2-independent protection of telomeres in pluripotent stem cells. *Nature*, **589**: 103-109.