



Postdoctoral Position at the Moreno-Mateos lab (CABD, Seville, Spain): *In Vivo* CRISPR-Cas optimization and Developmental Biology

The Moreno-Mateos Lab at Andalusian Center for Developmental Biology (CABD, Seville Spain) is seeking a highly motivated and talented **postdoctoral researcher** to join our dynamic team **starting 15th January 2026**. We are at the forefront of developing and optimizing CRISPR-Cas systems for *in vivo* applications, primarily utilizing **zebrafish** as a powerful model organism.

While CRISPR-Cas technologies are initially optimized in *ex vivo* systems like mammalian cell cultures, their translation to living animal models presents unique challenges and opportunities. Our lab is dedicated to overcoming these hurdles by implementing and refining diverse CRISPR-Cas strategies directly within *in vivo* contexts.

Beyond tool development, our research delves into fundamental questions in **early vertebrate development**. A core focus of our lab is the **Maternal-to-Zygotic Transition (MZT)**. This intricate *in vivo* cellular reprogramming event marks the initiation of new life, involving the precisely orchestrated activation of the embryonic genome and subsequent clearance of maternal contributions. We employ a multidisciplinary approach, integrating molecular and cellular biology, functional genomics, and computational biology to unravel the molecular mechanisms governing this crucial developmental process. We are particularly interested in identifying novel **regulatory factors** that control early development and provide insights into *in vivo* cell reprogramming.

To know more about our lab you can read our last contributions (Kushaswah G. et al 2020 Dev Cell; Hernandez-Huertas L. et al., 2022 Star Protocols; Vicencio J & Sanchez-Bolaños C et al., 2022 Nature Comms; Hernandez-Huertas L. et al., 2024 BioRxiv; Moreno-Sanchez I., Hernandez-Huertas L. & Nahon-Cano D. et al. 2025 Nature Comms) and visit our website: https://www.cabd.es/en/research_groups/crispr-cas-in-vivo-optimizations-to-understand-early-vertebrate-development-and-human-diseases/summary-326.html

This postdoctoral position offers an exciting opportunity to contribute to both **biotechnology innovation** through the generation and optimization of *in vivo* CRISPR-Cas tools, and to fundamental discoveries in **developmental biology, cell reprogramming, and biomedicine**.

We are looking for candidates with a strong background in topics such as: Molecular and Cellular Biology, Genetics, Developmental Biology and Bioinformatics (desirable). Experience with zebrafish, and/or CRISPR-Cas technologies, will be appreciated but not essential. We offer a minimum of 18 months contract with possibilities to be extended, and the lab will fully support the candidate in applying for both national and international competitive funding for their position.

If you are a curious, driven, and collaborative researcher passionate about pushing the boundaries of genetic engineering and understanding the intricacies of life, we encourage you to apply.

To Apply: Please send your CV, a cover letter outlining your research interests and relevant experience, and contact information for three references to moreno.mateos.ma@gmail.com (Please email title: your name_postdoc_MoreLab)