

**2 Postdoc Positions available**  
**1 Computational Biologist and 1 Molecular Biologist**  
**non-coding RNA & R-loop epigenetics**  
**(#CNP10)**

The **Institute of Molecular Biology gGmbH (IMB)** is a Centre of Excellence for Life Sciences, funded by the Boehringer Ingelheim Foundation. It is located within the campus of the Johannes Gutenberg-University, Mainz, Germany.

The Niehrs laboratory studies regulation of DNA methylation, which plays important roles in development & disease. We have recently demonstrated a role for long non-coding RNAs and R-loop DNA:RNA hybrids in DNA methylation (**Arab et al. 2014, *Mol Cell*, (2014) *Nat. Genet.* (2019)**). In an **ERC-funded project**, we now aim to elucidate the mechanisms of DNA demethylation as well as the role played by long non-coding RNAs and R-loops in its regulation. See also [www.imb-mainz.de/research-at-imb/niehrs/research/](http://www.imb-mainz.de/research-at-imb/niehrs/research/) Candidates will make use of mouse embryonic stem cells (ESCs) to interrogate genome-wide the role of ncRNAs and R-loops in targeting GADD45a and the DNA demethylation machinery in the genome. We will use CRISPR/CAS9 mediated ESC mutants, as well as CHIP-seq, RNA-seq, bisulfite-seq to carry out multi-dimensional data analysis to address: Where in the genome does demethylation occur? What are the molecular determinants in ncRNA & R-loops involved in targeting? What are the cofactors involved? The project will involve strong interaction between the **Molecular-** and the **Computational Biologist**.

**You have**

- PhD & publications in a relevant field
- Sound experience in R scripting or Python (**Computational Biologist**)
- Sound experience in molecular biology (**Molecular Biologist**)
- Familiarity with Omics techniques or –analysis, or with ncRNAs or R-loops is advantageous
- Excellent communication skills and good team spirit with the ability to solve problems independently
- Fluent in English (spoken and written)

**We offer**

- An international and vibrant working environment
- Competitive salary
- Training opportunities
- Favourable pension scheme

To apply please send a **single** PDF file, stating job reference (#CNP10), and containing your cover letter stating research and career interests, CV, scans of your degrees (Germans: including copies of Abitur- & Diplom/Master Zeugnis), and contact details of 2 references to [personnel@imb-mainz.de](mailto:personnel@imb-mainz.de). Informal enquires should be addressed to Prof. Christof Niehrs ([c.niehrs@imb-mainz.de](mailto:c.niehrs@imb-mainz.de)).

**Starting date:** before August 2019

**Duration:** Initially 3 years; option for further extension

**Application deadline:** 30<sup>th</sup> June 2019

**Declaration of Consent and Data Protection**

By sending us your application, you are consenting to us saving your personal data in order to carry out the selection process. You can find more information on data protection and retention periods at

<https://www.imb.de/jobs/datenschutzerklaerung-data-protection/>