2 PhD Positions in Developmental Biology (m/f/d) – Emmy Noether Group, Dr. Ali Seleit

The Centre for Integrative Biological Signaling Studies (CIBSS) and the Faculty of Biology at the University of Freiburg are pleased to announce **two open PhD positions** in the newly founded Emmy-Noether funded research group of Dr. Ali Seleit. The lab focuses on the genetic basis of developmental timing and size control in vertebrates using aquatic model systems. The positions are fully funded for the entire duration of the PhD under DFG guidelines.

- **Application Deadline:** 01.05.2026
- **Start-date:** 01.06.2026 (or by mutual agreement)
- **Position:** PhD researcher
- **Salary:** TV-L E13 (65%)

Project Description

The successful candidates will drive independent research projects supported by the prestigious DFG Emmy-Noether Programme. Both PhD candidates will focus on projects utilizing the Japanese rice fish, *Oryzias latipes* (medaka) and related species, to further our understanding of the fundamental mechanisms underlying the control of developmental timing in vertebrates.

Key methodologies in the lab include:

- **Genome editing:** CRISPR/Cas9 microinjections in *Oryzias* species to generate knock-in (KI) lines and knock-outs (Crispants)
- **Genetic hybridization**: hybrid F1 and F2 families from different *Oryzias* species
- **Multi-omics:** scRNAseq, proteomics and metabolic profiling of *Oryzias* species
- **Genomic analysis:** building and annotating genomes of *Oryzias* species
- **Advanced Imaging:** 4D-confocal and light-sheet imaging of fluorescently tagged endogenous proteins during embryonic development in *Oryzias* species

Required Qualifications:

- A Master's degree (or equivalent) in Biology, Molecular Medicine, Genetics, or a closely related field.
- Hands-on experience with standard molecular biology techniques (e.g., PCR, gel electrophoresis, molecular cloning and DNA/RNA sequencing).
- Basic coding and computational data analysis skills (e.g., Python/R/Imaris/Fiji)
- Strong critical thinking skills, high intrinsic motivation, and an independent, well-organized work style.

Highly Encouraged (but not required):

- Previous experience working with aquatic model systems (medaka, zebrafish, killifish).
- Experience with advanced light microscopy and quantitative image analysis.
- Experience with sequencing library preparation (DNA/RNA) or advanced computational data analysis (e.g. scRNAseq, proteomics, de-novo genome assembly and annotation).

What We Offer:

- A fully funded DFG Emmy-Noether PhD position (65% E13) for 36 months, with the possibility of extension.
- A dynamic, collaborative, and interdisciplinary research environment within the CIBSS Cluster of Excellence and the Faculty of Biology at the University of Freiburg.
- Opportunities to contribute to cutting-edge research in developmental genetics and vertebrate biology.
- Supportive mentorship and training in advanced molecular, genomic, and imaging techniques.
- Integration into the Spemann Graduate School of Biology and Medicine (SGBM) at the University of Freiburg, offering structured thesis advisory committees and career development opportunities.

How to apply:

Please submit your complete application in English – including a **cover letter** detailing your research interests and motivation, a **CV**, relevant **transcripts/certificates,** and the **contact details of two academic references** – as a **single PDF document**.

Please send your application electronically via email, citing the reference "**PhD-Seleit-2026**", to **ali.seleit@cibss.uni-freiburg.de** by **01.05.2026** at the latest.