Friedrich-Alexander-Universität
Medizinische Fakultät

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**Postdoctoral Researcher OR PhD students in Molecular Signaling Pathways in Myogenesis and Neuromuscular Junction (NMJ) at Friedrich-Alexander University (FAU), Germany**

Our laboratory at the Institute of Biochemistry, Friedrich-Alexander University Erlangen-Nürnberg (FAU), Germany, invites applications for **Postdoctoral Researcher or PhD Student** positions. The successful candidate will join an exciting research project investigating molecular signaling pathways in myogenesis and at the neuromuscular junction, with a particular focus on the **Hippo signaling pathway**.

The position is funded by the **German Research Foundation (DFG)** for a period of up to **three years**, starting in **early 2026**.

## Research Project Overview:

This project aims to elucidate the role of molecular signaling pathways in muscle development, regeneration, and NMJ function, with a special focus on the **Hippo signaling pathway**. The selected candidate will employ a combination of cutting-edge techniques to investigate cellular mechanisms and their future implications for neuromuscular diseases.

## Responsibilities:

- Investigate the molecular and cellular mechanisms involved in myogenesis and NMJ function with a focus on the **Hippo signaling pathway**.
- Perform in vivo analyses using **transgenic mouse models**, including histological, molecular, and functional characterization.
- Conduct **immunohistochemistry**, **immunofluorescence**, and **3D microscopy** to visualize cellular signaling and structural changes.
- Apply **multi-omics approaches** (e.g., transcriptomics) to identify key regulatory factors in muscle and NMJ biology, with a focus on understanding their role in disease.
- Utilize **genetic tools** and **CRISPR/Cas9** technology to manipulate specific genes involved in myogenesis and signaling.
- Collaborate with interdisciplinary teams and contribute to the overall development of the research project.

## Requirements:

- A Ph.D. OR M.Sc. in molecular biology, cell biology, or a related field.
- Strong background in **cellular and molecular biology**, with experience in **in vivo** studies (preferably cultured primary cells and mouse models).
- Expertise in techniques such as **Western blotting, RT-qPCR, immunohisto-chemistry**, and **microscopy** (e.g., ZEISS, ZEN, Fiji).
- Familiar with **multi-omics** approaches, including transcriptomics (experience is a plus, but motivated candidates willing to learn are encouraged to apply).
- Experience with genetic manipulation techniques such as **CRISPR/Cas9** is advantageous.
- Strong analytical skills and the ability to work both independently and collaboratively in a dynamic research environment.
- Excellent communication skills in English (knowledge of German is not required).

## What We Offer:

- An exciting, cutting-edge research project with a focus on molecular signaling and muscle biology.
- Access to state-of-the-art facilities and resources at FAU and through DFG-funded collaborations.
- A supportive and dynamic research team within a highly interdisciplinary environment.
- Opportunities for professional development, including training in advanced experimental techniques.
- A competitive salary based on the standard DFG scale.

## Application Process:

Interested candidates should submit a **CV**, a **brief cover letter**, and the **contact details of two references** to said.hashemolhosseini@fau.de. In your cover letter, please outline your experience, research interests, and motivation for applying to this particular project (one-page specific project proposals).

AI-generated applications will be detected by specific algorithms and disregarded.

For further information, please contact: said.hashemolhosseini@fau.de