Department of Physiology, Bühlplatz 5, 3012 Bern, Switzerland

UNIVERSITÄT BERN

Medical Faculty

Department of Physiology

**PhD student position in Cardiac Electrophysiology**

The research group of PD Dr. Ange Maguy at the Institute of Physiology is offering a PhD position for a period of 3 years and can be extended. The research group focusses on cardiac electrophysiology and therapeutic innovation in atrial fibrillation (AF). As the most common cardiac arrhythmia worldwide, AF is a growing epidemic with a prevalence estimated to rise to 12.1 million in 2030. It presents a serious health burden due to high morbidity and mortality rate. Despite the extensive research efforts made in the past decades, the determinant trigger for the progression of AF remains poorly understood. In this context, a better mechanistic understanding of the cellular and molecular process forming the substrate of AF is expected to foster the development of safer and more effective treatment approaches.

With translational approaches and in close collaboration with clinicians, we aim to decipher the mechanisms underlying AF and its progression. To this end, we combine high-throughput molecular biology techniques such as transcriptomic, proteomic and lipidomic, with animal models (from transgenic mice to AF model of higher species) and state-of-the-art electrophysiological studies (in vitro and in vivo). The targets identified in this context will allow the development of innovative approaches for the treatment of AF by means of specific vectors (e.g. viruses, molecular compounds) targeting a defined cardiac cell population (precision medicine). Our ultimate goal is to offer new therapeutic options in terms of personalized medicine for the patient suffering from AF.

We are looking for a highly motivated and committed PhD candidate who:

- Has a Master's degree in cardiac-related disciplines (biomedical sciences, medicine)
- Is driven by curiosity and desire to know more about the pathophysiology in AF
- Is a teamplayer and contributes to a dynamic and collaborative work environment
- Is proficient in English
- Experience in patch clamp and cell culture/isolation is an advantage
- Experience with animal experimentation is an advantage
- Has a strong interest in coding techniques (R, Python, Matlab)

The candidate will join the PhD program of the Graduate School for Cellular and Biomedical Sciences (GCB) of the University of Bern. Candidates will be evaluated starting in February 2023 and until the position is filled.

**How to apply:**
Please send a CV, diploma, a motivation letter with a brief statement of career goals, and 2-3 reference letters to: ange.maguy@unibe.ch

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