The department of Neurology, University of Wuerzburg (PD Dr. C.W. Ip; chair: Prof. Dr. J. Volkmann) offers a position as a PhD student in Life science on the general topic:

**Pathophysiology of dystonia - role of gene-environment interaction and common pathophysiological pathways.**

The dystonias are rare movement disorders. Despite diverse underlying aetiopathogeneses, dystonias share a common clinical presentation, with motor deficits that result from brain circuit dysfunction caused by various gene defects, brain lesions, or environmental factors, or which may emerge idiopathically. It is unclear how different inherited molecular defects cause neuronal dysfunction on the microcircuit and large-scale network level, leading to the manifestation of dystonia as a common final symptom pathway.

This project is funded by the ERA-Net for Research Programmes on Rare Diseases (EurDyscover). In this project we will explore dystonia disease mechanisms and identify common pathophysiological pathways from the molecular to the brain network level using genetically and phenotypically relevant mouse models of genetically divergent dystonias (DYT1, DYT6, DYT25). We aim to identify molecular biomarkers derived from multi-omic approaches comparing mouse tissue with accessible human material from dystonia patients. In addition, we will use cell and molecular biological methods such as immunohistochemistry, qPCR, western blot and behavioral analysis on mice.

Applicants should have received a Master degree or Diploma degree in life sciences with relevant research training in neurobiology and mouse behavior analysis. The candidate will work as part of the experimental movement disorders group.

The position is available from July, 1st, 2020.

Woman are especially encouraged to apply. We will prefer handicapped persons with equal qualifications.

Candidates are invited to submit their application to PD Dr. Chi Wang Ip: ip_c@ukw.de, Department of Neurology, University Hospital of Würzburg, 97080 Würzburg