

The University Hospital Bonn (UKB) is a maximum care hospital with more than 1,300 beds. Our more than 9,000 employees take on tasks in research, teaching and patient care as well as in public health at the highest level. In the science ranking (LOMV) and in the economic result, the UKB is number 1 of the university hospitals in NRW and in 2021 had the third highest case mix index of the university hospitals in Germany.

At the **Institute of Pharmacology and Toxicology** of the University Hospital Bonn, University of Bonn, working group **Prof. Dr. Yongguo Li**, the following positions **Postdoc (m/f/d)** and **PhD student (m/f/d)** are available as soon as possible:

Postdoc (m/w/d) und PhD student (m/w/d) (Thermogenic fat biology)

The research group of Prof. Dr. Yongguo is specialized in the role of adipose tissue in metabolism and energy balance. The overarching objective of the lab is, combining molecular and systems biology, leveraging the most cutting-edge technologies and multidisciplinary approaches, to decipher fundamental mechanisms that drive fat tissue remodeling, metabolic adaptation, and thermogenesis, which play central roles in the regulation of energy homeostasis. Ultimately, we seek to unravel potential therapeutically targetable mechanisms and promising drugs, which have fundamental implications for achieving metabolic health and combating metabolic diseases such as obesity, diabetes, and cardiovascular diseases. Further information on our work: Bast-Habersbrunner EMBO Reports 2021, Li et al., Cell Reports 2019, Li et al., Cell 2018, Li et al., EMBO Reports 2014. For more info about the lab, please see: https://www.pharmakologie.uni-bonn.de/en/research/li-lab

The full-time positions are available immediately. The contracts run for 4 years due the project for PhD and minimal 2 years for Postdoc with the with the prospect of extension. The positions are funded by the Emmy Noether Program of the DFG (link) and ERC Starting Grant (link).

The successful candidates will employ various methods in molecular biology from basic cloning, analysis in cell culture, protein-biochemistry to Mass-Spec., RNA-Seq., ChIP-Seq, scRNA-Seq, high-resolution molecular imaging, genetic models as well as generation of further mouse mutant lines to devise a comprehensive molecular network that regulates white fat browning or a transformative molecular understanding of the cellular processes enabling physiological adaptation to thermogenic demand.

Key tasks and responsibilities:

- Designing, performing experiments and analyzing results.
- Conceiving and developing new ideas, approaches or original technologies for studying gene regulation, fat metabolism and in general the lab's research interests.
- Generating and recording data, protocols and/or code for publication.
- Drafting manuscripts and figures deriving from their own results.
- Interacting with and supporting other laboratory members.
- Sharing and discussing research results with key collaborators in the group, institute and among external collaborations.
- Presenting scientific results in relevant international meetings.





Requirements:

- Applicants should have a Master of Science (M.Sc.) or equivalent academic degree in a field related to the research area. Experience in some of the mentioned techniques is also advantageous
- For the postdoc position, a PhD in either biology, biophysics, biochemistry or other relevant disciplines. PhD experience in the field of genetics and epigenetics is appreciated but not mandatory
- Profound knowledge and research experience in molecular biology, biochemistry, cell biology and advanced cell culture experience
- Knowledge/willingness of mouse experiment
- Knowledge and interest in fat biology
- Independence and flexibility in terms of managing projects and new ideas
- Fluency in English

We provide:

- A thriving international and collaborative research environment, which is international, friendly, flexible, inclusive and scientifically excellent
- State-of-the-Art research platform
- Excellent supervision, mentorship and support by the PI and colleagues as well as regular group meetings and scientific events
- Attendance to national and international scientific meetings
- Benefits and salary according to the german payscale TV-L EG13
- Flexible working hours and work-life balance provisions

Application Instructions:

Applicants should send their application as a single pdf file (max. 10 MB), including motivation letter, CV, list of publications, academic degrees and name of two references. Please send your application by email under indication of the reference number 753_2023 until 10th October to:

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