

Doctoral Project on the topic “tRNA thioepitranscriptome - a new level of translational control in the developing vessels”

Project description:

At the Institute of Vascular Signalling, Center for Molecular Medicine at the Faculty of Medicine, Goethe University, there is **one open PhD position (E13 TV-G-U, 65%)** on the topic " tRNA thioepitranscriptome: a new level of translational control in the developing vessels". The position is available from now on for a period of 3 years with the possibility of renewal. The position is advertised within the framework of a project funded by the Hector Fellow Academy, which deals with the consequences of cysteine metabolic rewiring in vascular regeneration (see *Circulation*. 2019;139:101-114 and *Circulation*. 2021;143:935-948).

The position requires the following:

- Participation in a research project within the Hector Fellow Academy.
- The research project will focus on the impact of sulfur-containing amino acids in the human and murine vascular system and how these nutrients are serving as the source of tRNA modifications that control endothelial protein translation surveillance mechanisms during endothelial cell division.
- Collection of experimental data, analysis and documentation of the results and preparation of the material for publication.

The position offers:

- a thematic high-level project in an excellent environment supported by the Emmy Noether programme, the DFG Cluster of Excellence "Cardiopulmonary Institute" (www.cpi-online.de) and the German Center for Cardiovascular Research (DZHK).
- Rooms, housed in a research building, with modern facilities and analysis possibilities from integrative physiology to mass spectroscopy.
- National and international networking.

Keywords

Cardiovascular Surveillance, Vascular regeneration, Nutrient Sensing and Post-Translational Modifications, Metabolism and Epi-Transcriptomics

Entry requirements

- A completed, very good MSc in biology, biochemistry, molecular medicine or a related discipline.
- Training in cell culture, RNA biology and/or multi-omic approaches (including metabolomics and epitranscriptomics).
- Experience with bioinformatics would be beneficial.
- Good self-organization and team working abilities.
- Excellent English

Location

Goethe University Frankfurt, Institute of Vascular Signalling, Center for Molecular Medicine at the Faculty of Medicine

Starting date

March 2023 or later

Funding

Four years of funding (3+1, three years with the possibility to extend for one year)

How to apply

Please apply **until March 31, 2023** via the [HFA application portal](#).

From April 1st, 2023, please send applications via e-mail to application@hector-fellow-academy.de.

Prof. Sofia-Iris Bibli will arrange interviews (via skype or if feasible in-person) with the most promising applicants.

Enquiries

For further details about the project, please contact Prof. Sofia-Iris Bibli at: bibli@vrc.uni-frankfurt.de

For questions related to making your application, please contact the Hector Fellow Academy Office: application@hector-fellow-academy.de or www.hector-fellow-academy.de