

PhD Student Position (f/m/d)



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Düsseldorf, the capital of NRW, is located in the core of Europe, at the border with Belgium, the Nederland and France; it hosts a vibrant international community and a big airport connected daily to all EU and non-EU countries. HHU offers excellent research environment and infrastructure, such as the Biological Medical Research Centre, the Centre for Advanced Imaging, and the Centre for Structural Studies as well as long established research links to the University Clinics and the Leibniz Research Institutes (i.e. IUF, DDZ). Close vicinity with the University of Cologne also provides plenty of opportunities for scientific exchanges.

Mitochondria are vital organelles. In our lab we primarily exploit the roundworm *Caenorhabditis elegans* as a model organism to investigate the role of mitochondrial stress responses (MSR) in neuropathologies and ageing (Schiavi *et al.*, *Curr Biol*, 2015; Torgovnick *et al.*, *EMBO Reports*, 2018; Maglioni *et al.*, *Nat Commun*, 2022). More info about the lab can be found here: [VENTURA LAB](#). In this hypothesis driven project you will specifically investigate how mild mitochondrial stress protects animals against aging and neurodegenerative disease (i.e. Alzheimer) based on mechanisms suggested by our recent unbiased multi-OMICS results, with a special focus on redox- and lipid-regulatory processes. The position has to be filled preferably by June 1st 2023 (flexible).

YOUR TASKS

- Combine genetic, neurobehavioral and imaging techniques to investigate the role of selected molecular pathways (suggested by multi-OMICS analyses) as mediators of mitochondrial-stress extension of healthspan
- Utilize state-of-the-art genetic and biochemical assays to identify novel redox- and/or lipid-regulated genes and signals mediating the pro-longevity effect
- Use functional and structural neuronal assays to address the role of newly identified genes in *C. elegans* age-associated disease models (i.e. Alzheimer)

YOUR PROFILE

- Master of Science (e.g. Biology)
- Interest in aging and age-associated disease
- Enthusiastic and highly motivated
- Excellent communication skills in English (knowledge of German is a plus)
- Eagerness for independent and team work
- Previous experience with *C. elegans* or imaging techniques

WE OFFER YOU

- A 3-years funded position (salary and social benefits based on TV-L 13 65%)
- Structured PhD program
- Extensive advanced training opportunities
- Support in reconciling work and family life
- Flexible working time models
- An international, diverse and fair working environment

Applications should include a statement of research interest, a curriculum vitae with the names and e-mail addresses of two referees, and proof of the required qualifications with grades and should be sent (**one pdf only**) to natascia.ventura@uni-duesseldorf.de