At Ludwig-Maximilians-University Munich (LMU), Faculty of Biology, for the Chair of Quantitative Organismic Networks, we are looking for a

PhD candidate (m/f/d)

In this position, you will uncover the molecular mechanisms and evolution of DNA damage repair pathways and circadian rhythm regulation in cnidarians.

Corals have evolved specific mechanisms to adapt to challenging environments. They hijack the photosynthetic capabilities of dinoflagellates to form a nutritional endosymbiosis and thrive in nutrient poor environments. Another challenge is that corals are sessile animals and therefore inevitably exposed to DNA-damaging UV radiation in their sun-lit environments.

How do corals battle with high levels of DNA damage? How do they cope with high levels of reactive oxygen species generated through symbiont photosynthesis likely leading to additional DNA damage?

The successful candidate will address these questions by developing experimental methods for analysis of DNA damage repair to quantify and compare DNA damage levels in Aiptasia, a model system for corals and using comparative approaches in Nematostella and cell culture systems. In this project, a combination of molecular techniques will be used including gene expression analysis, CRISPR genome editing and biochemical approaches to characterize key players by ectopic protein expression and functional assays in mammalian cells.

Requirements:

- The successful candidate has a Master’s degree in molecular, cell biology or related discipline with high motivation to do experimental research
- The candidate has the capacity to work independently as well as the ability to integrate and contribute to a highly international collaborative work environment
- Good time management skills, clear communication skills and fluency in English are required

What do we offer:

- This position offers the opportunity to work in a diverse, international team, dedicated to advancing our understanding of coral symbiosis
- Our research is highly topical and we seek to actively contribute to a sustainable world
- We offer various training opportunities and participation in outreach activities
- If applicable, we offer participation in coral reef field work in Okinawa (Japan)
- For more information visit: www.guselab.de

Researchers are supported by an excellent laboratory infrastructure at the HighTechCampus Planegg-Martinsried, which is part of the largest German university. We value good communication, a pleasant working atmosphere and personal responsibility. We are also dedicated to contribute to open and reproducible science.

Project duration and starting date:

The candidate will be offered an E13 (65%) position for the duration of three years. Funding permitting, the extension for one more year is possible. The earliest starting date is 01.12.2024.
Application package:

Candidates send a motivation letter and CV (one PDF, max. 5 MB; including three contacts for references) addressed to Prof. Annika Guse to the following email address: symbiosis-secretary@bio.lmu.de

Submission deadline is the 15.09.2024.

LMU has signed the "Diversity Charter" and is committed to the diversity of its employees. We therefore actively promote gender equality. Severely disabled applicants will be given preference if their qualifications are otherwise essentially the same.

LMU researchers work at the highest level on the great questions affecting people, society, culture, the environment and technology — supported by experts in administration, IT and tech. Become part of LMU Munich!

In the course of your application for an open position at Ludwig-Maximilians-Universität (LMU) München, you will be required to submit personal information. Please be sure to refer to our privacy policy. By submitting your application, you confirm that you have read and understood our data protection guidelines and privacy policy and that you agree to your data being processed in accordance with the selection process.