

The IUF — Leibniz Research Institute for Environmental Medicine investigates the molecular mechanisms through which particles, radiation and environmental chemicals harm human health. The main working areas are environmentally induced aging of the pulmonary system and the skin as well as disturbances of the nervous and immune system. Through development of novel model systems, the IUF contributes to the improvement of risk assessment and the identification of novel strategies for the prevention / therapy of environmentally induced health damage. The working group "AHR signaling & environmentally-induced skin damage" at the IUF — Leibniz Research Institute for Environmental Medicine in Düsseldorf is currently looking for

A student (m/w/d) for a Master Thesis with the title:

Impact of a changing micromilieu on aryl hydrocarbon receptor (AHR) signaling and downstream events in UV radiation-damaged keratinocytes.

The project: Squamous cell carcinoma (SCC) of the skin result from chronic exposure to solar or artificial UV radiation and the associated accumulation of damaged cells in the tissue. However, while the epidermal compartment of chronically UV-exposed skin contains large amounts of keratinocytes that carry mutations in cancer driver genes, only a few of them undergo the process of malignant transformation to an invasive SCC. The reason for this as well as the molecular mechanisms that drive this neoplastic transformation are only partially understood. Based on preliminary data, we hypothesize that an aberrant regulation of the aryl hydrocarbon receptor (AHR) signaling pathway might be causally involved. Aim of this project is to investigate the effects of a changing microenvironment on AHR-dependent signal transduction, proliferation, apoptosis resistance and invasive growth of UV-damaged epidermal keratinocytes.

Your profile: Our working group is looking for a motivated master student (m/w/d) with a high level of commitment, fun at work, and team spirit. The applicant should have a completed bachelor's degree in molecular biology, cell biology or a related discipline. Hands-on experience in cell culture, protein biochemistry, and/or FACS analysis is a plus. Furthermore, good knowledge of English is mandatory.

We offer: An interdisciplinary international team with a pleasant working atmosphere and a thorough training in a highly topical, challenging area of research.

Start: As soon as possible

Please address your application by e-mail (letter of motivation, CV, certificates, etc.) with the reference "Master Haarmann-Stemmann" in the subject line to Bewerbung@IUF-duesseldorf.de

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Application documents submitted by post are not returned. Documents for applicants not considered are destroyed appropriately once the procedure is complete.

