

Job Vacancy

The University Hospital Essen offers first class medical services in the Ruhr metropolis. Every year, 225.000 patients are treated in 30 clinics, 27 institutes and specialized centers. The over 8.000 employees offer medical care with state-of-the art diagnostics and therapies, which meet highest international standards. Patient care is connected with basic and translational research at an international competitive level.

PhD student (f/m/d)

(pay grade: EG 13 TV-L)

Work Area: Institute of Cell Biology (Cancer Research)

Job ID: 11709

Start Date: 01.01.2025 at the earliest, but no later than 01.04.2025

Work Scope: Part-time employment / 25,025 h

Contract Type: Temporary

Contract duration: 42 month from employment, until 30.09.2028 at the latest; in accordance with § 2 (1) WissZeitVG

Your tasks

About us

The advertised position is located at the Institute of Cell Biology (Cancer Research) (principle investigator: PD Dr. Johann Matschke). The project is linked to the focus area L2 of the GRK 2762 "Subtype-specific vulnerabilities of KRAS-driven NSCLC cells with intrinsic or adaptive radiation resistance".

Clinically relevant co-occurring somatic mutations in tumor suppressor genes *STK11/LKB1*, *KEAP1* emerged as potential biomarkers for an increased risk of radiotherapy (RT) failure in KRAS-driven lung cancer. Own preliminary work revealed that in addition to oxidative stress and DNA damage, ionizing radiation (IR) induces severe energy stress in cancer cells. In this context, oncogenic *KRAS* mutations accelerated metabolic recovery and DNA damage repair. We thus speculate that to maintain survival upon RT cancer cells have to balance protection against oxidative and energy stress with their needs in energy and metabolites for the repair of radiation-induced lethal DNA double-strand breaks (DSBs). The proposed project aims to define the impact of the molecular background defined by clinically relevant co-occurring somatic mutations on the capacity of *KRAS*-driven lung cancer cells to dynamically adapt their transcriptional programs and metabolic phenotypes in support of DSB repair and survival upon exposure to IR and perturbation by distinct environmental conditions.

The GRK 2762 “Heterogeneity, plasticity and dynamic in cancer cell, tumor and normal tissue responses to cancer radiotherapy” offers outstanding internationally-oriented interdisciplinary scientific research and training opportunities for graduates of experimental or computational life sciences and (bio)medicine with interest in basic and translational cancer research and computational biology (<http://www.uni-due.de/med/forschung/grk2762/index.shtml>).

Your profile:

- Talented and enthusiastic candidates with high interest in the research topic of GRK 2762
- Strong Diploma/Master degree in Cell or Molecular Biology, Biochemistry, Radiation Biology, Experimental Diploma/Master degree Medicine, Computational Biology or related fields
- High motivation and commitment for active cross-disciplinary collaboration
- Abilities for problem-solving and independent work
- Work with laboratory animals may be obligatory (depending on the project)
- Fluent in spoken and written English (knowledge of German is not a requirement)

Look forward to:

- Opportunity to conduct high-level interdisciplinary research projects
- Stimulating interdisciplinary and internationally-oriented academic environment
- Innovative cross-disciplinary scientific training for PhD and MD students at the interface between radiation biology and oncology, precision medicine, and computational biology
- Training in transferable academic and soft skills
- Funding for active participation in workshops and conferences and international visits to collaboration partners
- Regular supervision and mentoring
- Excellent career opportunities
- A secure job in the public service of the state of NRW
- Fair payment in accordance with the collective wage agreement (TV-L) incl. annual bonus payment and supplementary company pension scheme
- 30 days of vacation per calendar year (for a full-time position)
- Interdisciplinary work with colleagues from other departments
- Working with modern equipment and certified quality standards
- Family-friendly corporate culture, e.g. company daycare center, vacation program for school-age children, advice and support from the Employee Service Office in all life situations
- Wide range of training and continuing education opportunities, e.g. at the Training Academy of UK Essen
- Health Management, e.g. company integration management, vaccinations, promotion of sports activities
- Attractive fringe benefits, e.g. reduced-price canteen meals, community events, accommodation in student residences

General conditions:

- The pay grade classification depends on the personal and collective legal prerequisites.

Open-Minded

- The University Hospital Essen is an equal opportunity employer. Female scientists are particularly encouraged to apply
- The participation in secondary employment depends on the „Hochschulnebenberufungsverordnung“ of North-Rhine Westphalia.
- Disabled applicants will be preferentially considered in case of equivalent qualification.
- The position is also available as part-time employment.“

Contact person and further information about the position:

You will find detailed information on the job advertisement and contact persons behind the button - Apply now:

<https://bewerbung-karriere.ume.de/Vacancies/11709/Application/CheckLogin/1>

We use your data exclusively for application purposes in accordance with the applicable data protection regulations. Further information can be found in the privacy statement on our homepage at: www.uk-essen.de.