**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**: Radiation Clinic, Department of Radiotherapy and 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 Department of Radiotherapy and the Institute of Cell Biology (Cancer Research) (principle investigators: Prof. Dr. Nika Guberina and Prof. Dr. Verena Jendrossek). The project is linked to the focus area T1 of the GRK 2762 “Biomarkers of pneumonitis and lung fibrosis upon thoracic RT/RCTx with or without concomitant anti-PD-L1 antibody therapy”.

Immune-related adverse effects (irAE) are dose limiting for radiotherapy (RT) ± immune checkpoint inhibition (ICI) in patients with non-small cell lung cancer (NSCLC). Currently, diagnosis is made by exclusion based on clinical assessment, pulmonary function tests, and radiological findings, but predisposing factors and biomarkers are less defined. This project aims to examine the complex mechanism of action of ICI therapy combined with RT and/or chemotherapy with regard to immune-related lung tissue reactions and pulmonary radiotoxicity in patients and in a co-clinical murine model. We speculate that cytokine levels in serum and bronchioalveolar lavage, as well as the myeloid and lymphocytic landscape, may help to distinguish different types of pneumonitis. We will record numerous baseline conditions and time resolved functional abnormalities in both, lymphoid and myeloid alveolar cell types, and investigate their role as potential risk drivers and contributors of therapy-induced lung disease. Patients with virus-related lung tissue damage will serve as controls. Overall goal is to identify predisposing risk and biomarker patterns for early detection of different types of irAE in the lung and thereby to improve multimodal treatment in NSCLC patients.

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.
* The University Hospital Essen is an equal opportunity employer. Female scientists are particularly encouraged to apply
* The participation in secondary employment depends on the „Hochschulnebentätigkeitsverordnung“ 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](http://www.uk-essen.de).