

PhD position

available at the Institute of Virology, Saarland University Medical Center, Homburg/Saar, Germany, in collaboration with the Leibniz Institute for New Materials, Saarbrücken, Germany, and Experimental and Clinical Toxicology, Saarland University

Project: Engineered commensal lactobacilli as living therapeutic materials for chemoprevention of chronic inflammation and infection-associated carcinogenesis in the female genital tract at Leibniz-Science Campus Living Therapeutic Materials (<https://www.lscifemat.de>)

Working on the Next-Generation Drug Delivery Devices and Therapies we are seeking a highly motivated coworker with strong research interests in 3D cell culture research and molecular virology.

The mucosa of the female genital tract is at high risk for infection, chronic inflammation, and infection-associated carcinogenesis. Currently, the standard therapy for precancerous lesions resulting from infection with tumor viruses is surgery. For women of childbearing age, who are most affected by this disease, surgery carries risks, such as preterm delivery. Therefore, there is an urgent need for alternative therapeutic strategies. The aim of this project is to use genetically programmed commensal lactobacilli as living therapeutic materials (LTM) for long-term delivery of biopharmaceuticals. Our goal is chemoprevention of chronic inflammation and carcinogenesis in the female genital tract. We focus on the use of 3-dimensional organotypic and organoid tissue culture models to study the effects of LTM on inflammatory signaling and virus-induced carcinogenesis. Unique 3D cell biology techniques as well as molecular biology techniques such as single cell sequencing, chromatin and pan-omics analyses are available for innovative transdisciplinary cancer research.

We offer an excellent international scientific environment. Both access to valuable patient material and close collaboration with the Helmholtz Centre for Infection Research and the Leibniz Institute for New Materials facilitate translational research for new therapies.

Applicants should have a sound knowledge of cell biology, virology and/or signal transduction. Excellent English communication skills (written and oral) are expected. A sincere interest in translational research and the development of novel therapies against viral diseases is required. Applicants should have a Master's, Diploma or equivalent degree in Biology, Biochemistry, Pharmacy or a related subject.

Please email your application (pdf) with a letter of motivation, curriculum vitae, a statement of research experience, and the names of 2 references to sigrun.smola@uks.eu.

Application deadline is December 15, 2021.

Contact

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