



Institute of Pharmacy

University of Tartu

JOB POSTING – POSTDOCTORAL FELLOW

Scientific Area: Material Sciences; Biomaterials; Biotechnology; Pharmaceutical Sciences; Tissue Engineering and Wound Healing.

Research Topic: Development of antimicrobial drug delivery systems for the treatment of wound infections and the development of relevant *in vitro*, *ex vivo* and *in vivo* wound infection models. Project is carried out as part of the Estonian Research Council funded project PRG1507.

Description of Duties: Post-doctoral position is available in which the candidate will conduct innovative research on developing delivery systems for antimicrobial peptides. The latter involves both the preparation and testing their bioactivity and safety. The successful candidate will be part of an interdisciplinary research team at the University of Tartu involving pharmacists, molecular biologists, immunologists, biochemists, dentists and medical doctors. Our work involves collaboration with academic as well as industry partners from around the world. Research project is focused on using antimicrobial peptides for the treatment of wound infections and developing novel therapeutics. In addition, novel wound infection models will be developed which enable to study these wound preparations in more biorelevant conditions.

This is an excellent training opportunity that will allow the candidate to participate in a research project that bridges basic science and translational pre-clinical research. The outcome of project is an advanced antimicrobial wound matrix which helps to prevent and/or treat already developed wound infection and support the wound healing. Hence also first steps are taken towards clinical testing.

We are looking for individuals who are team-players, highly productive, and are able to deliver results in a timely fashion. Individuals are expected to be able to design and perform experiments independently, manage multiple projects concurrently, write manuscripts.

Salary: Commensurate with experience and in accordance with the collective agreement.

Required Qualifications: Candidate should have a PhD in pharmacy, molecular biology, microbiology, biochemistry, pharmacology, material science, physics, polymer science, nanotechnology or a related discipline. Strong communication skills, adherence to deadlines, and record keeping skills are needed. Highly capable of communicating scientific results in English, both orally and in writing. Work involves working with bacteria and eukaryotic cells, and/or laboratory rodents, therefore previous experiences working with living cells and/or laboratory animals is preferred. Data analysis (statistics) skills.

Key responsibilities include: • Designing and performing experiments • Conducting data analysis • Manuscript and report writing • Ordering of laboratory supplies/solvents etc. relevant for the experiments • Design and execution of electrospinning experiments (screening suitable polymers and electrospinning setups) • Morphological, physicochemical, mechanical and solid state characterization of the obtained electrospun materials • Biological testing of the electrospun fiber matrices (antimicrobial activity on bacteria, cell viability testing on eukaryotic cells, *in vivo* animal models)



Application Instructions: All individuals interested in this position must submit, via email to karin.kogermann@ut.ee : 1) motivation letter with a description of research interests and previous experience relevant to the position applied for; 2) Curriculum vitae with a complete list of publications; 3) Please include in your CV the following clause: "I agree to the processing of personal data contained in my job offer for the needs necessary to carry out the recruitment process conducted by the Institute of Pharmacy, University of Tartu (Nooruse 1, 50411 Tartu, Estonia) according to art. 13 para. 1 and 2 of Regulation (EU) 2016/679 of the Parliament and of the Council of 27 April 2016 on the protection of individuals with regard to the processing of personal data and the free movement of such data and the repeal of Directive 95/46 / EC (RODO). 4) A proof of having obtained a Ph.D. degree or equivalent, at most 5 years ago (attested copy of scientific degree (PhD), diploma in English 5) Recommendation letter and an additional referee that we can contact. Closing Date: 20.03.2023 OR until position has been filled (candidates selected for interviews will be contacted after this deadline within a reasonable time-frame)

Supervisor: Professor Karin Kogermann

Expected Start Date: As soon as possible Term: 1 year (with possibility of renewal up to 2 years)

For more details about the position: contact karin.kogermann@ut.ee

We offer:

- Postdoc position in a 1.2% of the world's best universities (QS World University Rankings)
- Full-time visiting researcher position within an internationally competitive environment
- Access to modern equipment and facilities
- Possibility for interdisciplinary collaborations with foreign cooperation partners
- Opportunity to participate in scientific conferences and training courses

Working hours: The normal hours of work are 40 hours per week for a full-time Postdoctoral Fellow (pro-rated for those holding a partial appointment) recognizing that the needs of the employee's research and training and the needs of the supervisor's research program may require flexibility in the performance of the employee's duties and hours of work.