

RenalToolBox – Project Description

ESR Number:	ESR1	Host:	UHEI
Project Title:	A new diagnostic device to assess different aspects of renal function transcutaneously.		
Research Field:	Medical Sciences		
Contact Person:	Prof. Dr. Norbert Gretz		
Academic Supervisor(s):	Prof. Dr. Norbert Gretz		
Research Group / Department:	Medical Research Center		
Group's website:	https://www.umm.uni-heidelberg.de/inst/zmf/index_e.html		
Full Address:	Zentrum für Medizinische Forschung Medical Faculty Mannheim Heidelberg University Theodor-Kutzer-Ufer 1-3 68167 Mannheim, Germany		
Expected Start Date:	01. April 2019 or earlier		
Description:			
<p>The RenalToolBox is an EU-funded ITN that aims to develop novel tools and technologies to assess the safety and efficacy of cell-based regenerative medicine therapies for kidney disease. You will join a team of 15 Early Career Researchers (ESR) working across 10 different institutions towards this goal.</p> <p>In this position you will be employed by UHEI (University of Heidelberg) and enrolled as a PhD student at the University of Heidelberg, the oldest University of Germany. Your role in this project will be to develop new diagnostic devices to assess different aspects of renal function transcutaneously. More specifically, you will:</p> <ul style="list-style-type: none"> - develop a novel transcutaneous device with light emitting diodes (LEDs) and optical sensors to permit the detection of NIR tracers developed by ESR2 (Cyanagen, CY) for measuring different aspects of renal function (GFR, tubular secretion and re-absorption). - develop mathematical tools necessary to model the clearance of NIR tracers developed by ESR2 (CY). - test the devices on normal and diseased animals in close collaboration with partner CY. - collaborate with scientists developing in vivo models. <p>The post holder will be employed on a fixed term (36-month contract) and enrolled as a PhD student at the University of Heidelberg. The candidate will be expected to spend periods of time with other partners in the consortium.</p> <p>More information about this consortium and the project can be found in www.renaltoolbox.org.</p>			

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Required Skills / Qualifications:

Essential:

- BSc and MSc degree in a relevant subject (biomedical sciences, bio-engineering, molecular biology or other engineering related subjects).
- Excellent oral and written communication skills with well-developed interpersonal skills.
- Ability to work effectively and collaboratively within a multidisciplinary team.
- Enthusiastic, self-motivated individual, willing to take part in personal skills training, international travel and public outreach activities.
- Demonstrated commitment to high-quality research.

Desirable:

Research experience involving device development or preclinical imaging

The candidate is also required to fulfil the research experience and transnational mobility requirements outlined in <https://renaltoolbox.org/job-positions/>

Other requirements:

N/A