

RenalToolBox – Project Description

ESR Number:	ESR12	Host:	NUIG
Project Title:	Determine the characteristics of CD362+ BM-MSCs and assess their safety and efficacy in an IRI mouse model.		
Research Field:	Medical Sciences		
Contact Person:	Prof Tim O'Brien		
Academic Supervisor(s):	Prof Tim O'Brien		
Research Group / Department:	Regenerative Medicine Institute (REMEDI), NUI Galway, Ireland.		
Group's website:	http://www.nuigalway.ie/remedi/		
Full Address:	Regenerative Medicine Institute (REMEDI), First Floor South, Biomedical Sciences Building, National University of Ireland Galway, Ireland.		
Expected Start Date:	1 April 2019		
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>The successful applicant will carry out your research project in REMEDI, whose overall vision is to translate promising in vitro and in vivo findings to clinical trials and patent treatments. REMEDI consists of 13 PIs and over 80 research staff, comprised of senior research fellows, post docs, PhD students and research assistants.</p> <p>The aim of this project, as part of the greater ITN program, is to characterise a mesenchymal stem cell (MSC) population, isolated from bone marrow (BM) and selected for cell surface expression. The selected candidate will investigate the cell type proliferation rates, ability to form colonies, ability to differentiate and in vitro immunomodulatory capacity. The candidate will determine how these properties are affected by culture media and novel culture substrates. The candidate will assess the therapeutic efficacy of the BMMSCs by testing their ability to ameliorate tubular cell injury using an in vitro ciPTEC-based IRI model (collaboration with ESR3) and will use lentiviral transduction to introduce EF1α-GFP-E2A-luciferase reporter and assess safety and efficacy of the BM-MSCs in mice with IRI.</p> <p>More information can be found about the consortium by visiting www.renaltoolbox.org</p>			
Required Skills / Qualifications:			
<p>Essential:</p> <ul style="list-style-type: none"> - BSc degree in a relevant subject (biomedical sciences, bioengineering, molecular biology or other related subjects) - Primary cell culture experience - 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 			

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travel and public outreach activities.

- Demonstrated commitment to high-quality research.

Desirable:

- A Master's degree in biomedical sciences or a similar discipline

- Research experience involving mesenchymal stem/stromal cells, cloning 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:

High standard in written and spoken English.