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MRC-funded Post-Doctoral Research Associate (PDRA) position to investigate the response of resident neural progenitor cells after spinal cord injury (SCI) in regenerative and non-regenerative species.

Mammals in general and humans in particular have a very poor ability to regenerate or repair their central nervous system after injury, with devastating consequences for individuals affected by trauma such as SCIs. Recently, we have focussed our efforts to understand the mechanisms underlying the response to injury and neuronal regeneration in Xenopus, a species able to regenerate its spinal cord after injury. We have shown that the timing and rate of neuronal differentiation is necessary for spinal cord regeneration and precisely controlled (Pelzer et al. 2021, PMID 34427977). Our labs are interested in addressing the following fundamental questions:

- how distinct are the transcriptional programmes of developmental and regenerative neurogenesis?

- Can we identify regeneration-specific mechanisms promoting neurogenesis after injury?
- Can we use this knowledge to stimulate neurogenesis after SCI in mammals?

This project is a collaboration between Dr Karel Dorey (University of Manchester, UK) and Pr Raùl Russo (IIBCE, Montevideo, Uruguay). The successful candidate will benefit from a vibrant scientific environment both at the University of Manchester (Regeneration, Neurosciences and Developmental Biology) and in the Instituto Clemente (Neurosciences, Spinal cord injury) with access to state-of-the-art core facilities (in particular Genomics, Animal facilities, Histology, Flow Cytometry and Imaging). This collaborative project will provide a unique opportunity for the PDRA to acquire in vivo skills to study spinal cord response to injury both in regenerative and non-regenerative species.

This post is for 40 months full time. Closing date for application and starting date tbc. We encourage interested candidates to contact us explaining your research interests and long-term goals together with a CV.