

Postdoctoral Research Associate - University of Sheffield

Applications are invited for the post of Postdoctoral Research Associate within the Bateson Centre and the Sheffield Institute for Translational Neuroscience (SITraN) at the University of Sheffield. We are seeking a highly motivated scientist with experience in zebrafish research and neurobiology to work on an exciting new, MRC-funded project which will establish the mechanistic role of susceptibility genes for Parkinson's disease using mutant zebrafish (*Danio rerio*) lines. Funding for this postdoctoral position is initially available for 30 months.

Genetic studies have greatly improved our understanding of monogenic forms of Parkinson's disease (PD), however this only accounts for 5-10% of PD. Genome-wide association studies (GWAS) have also identified 24 risk loci in the much more common sporadic form of PD. In the Bandmann lab we are interested in the function of these genes that have been identified as risk factors and have developed a large number of mutant zebrafish lines using CRISPR/Cas9 in order to study them. Many of these genes have not previously been studied in vertebrate models or result in embryonic lethality making zebrafish an ideal model system in which to study them.

You will be undertaking in vivo pathway analysis on these already established lines to determine whether these genes are involved in pathobiological pathways linked to PD. A concept of distinct pathobiological mechanisms contributing to PD is emerging and is centred around mitochondrial dysfunction, autophagy/lysosomal dysfunction, and neuroinflammation and the innate immune system. You will combine neurophysiological, biochemical, morphological and functional analyses with comparative, RNA-seq based transcriptomic studies to characterise these mutants. This will establish the mechanistic role of the selected PD GWA genes, provide new insight into the pathogenesis of PD and identify potential drug targets.

You will have excellent skills relevant for zebrafish research along with a PhD (or equivalent experience) and ideally also a strong background in Neurobiology. You will join an internationally recognised research group in a vibrant and stimulating environment within the Bateson Centre and SITraN.

This post is full time, fixed term for 30 months.

Please see for further details:

<https://www.jobs.ac.uk/job/BKA885/postdoctoral-research-associate/>

Informal enquiries to:

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