The importance of neural plasticity in ageing

Supervisory team:
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Project description:

As we age the body changes and so the motor system must compensate for these alterations in biomechanics. Problems with this compensation process affects the ability of older adults to do everyday tasks which in turn has an impact on quality of life. To understand this we need to combine studies of motor adaptation in humans with brain imaging methods (fMRI in this case) and in a model animal system.

The project is suitable for a student interested in receiving a unique combination of training spanning the fields of neuroscience and psychology. This will include: 1) state-of-the-art *in vivo* research techniques, including advanced electrophysiological recording and associated analytical methods. There is a world-wide shortage of scientists with these specialist skills so expertise in this area will aid their future career. And 2) Human experimental psychology including the measurement of movement kinematics. Because of the societal need, the study of ageing in humans is a growth research area in which there is a shortage of trained scientist and the student will receive unique training in this area.