



MSc/PhD- Projects at Keele

Project-3

Evaluating the effect of drugs and small molecules on neuronal and glial cells

Research type: lab based – *in vitro*

Your research project:

You will focus on evaluating the effect of a pharmacological compound (a drug or small molecule) on neuronal and/or glial cells. The aims and objectives of these research projects will be individually tailored for each student and their level of study (MSc or PhD). This type of observation would help you gain experience in cell culture, analysis of biological assays, biostatistics, data presentation and academic writing.

Scientific output:

Your research output will be presented internally (seminars/ internal conferences) and in a dissertation format i.e. final MSc/PhD report or thesis as applicable. If the MSc/PhD student candidate is extremely successful, their findings can be presented in national / international conferences or could be published in a peer-reviewed journal.

It is expected from PhD candidates to have two or three publications by the time they graduate to enhance their employability.

Examples of research work & outputs:

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- 1- Effects of interferon-beta on oligodendroglial cells [doi](#)
 - 2- Modulation of rat oligodendrocyte precursor cells by the chemokine CXCL12 [doi](#)
 - 3- Antidepressant Administration Modulates Neural Stem Cell Survival and Serotonergic Differentiation Through bcl-2 [doi](#)
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Employability:

This type of research would benefit those who would enjoy working in the lab, become a TA, PhD student or join the industry (neuroscience and/or neuropharmacology). Additional training opportunities could be provided to PhD candidates to enhance their employability (TBD). As duration of MSc courses are rather short, students are encouraged to engage with their supervisor sooner rather than later to be more productive in their research activities and outputs.