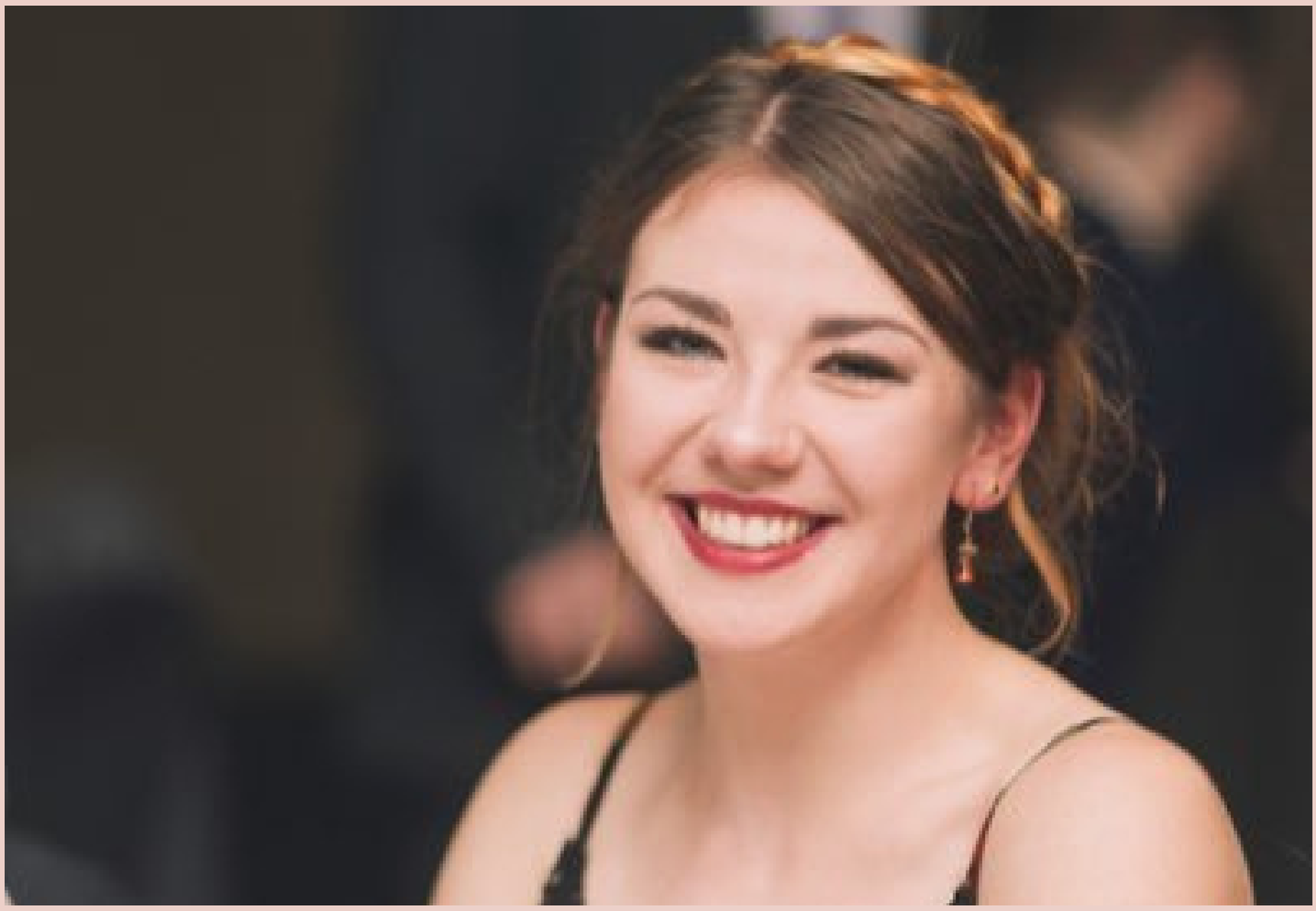
CIBIO EXTERNAL seminar

29 SEPTEMBER AT 12.30 P.M.
ROOM A 205 | POVO 1

DEVELOPING NEW MODELS OF BRAIN HAEMORRHAGE

SIOBHAN CRILLY PhD NEUROSCIENCE At THE MANCHESTER UNIVERSITY



Haemorrhagic stroke accounts for 15% of strokes in Western society but a disproportionate 40% of stroke-related deaths, and disability occurs in half of all survivors. In an ageing population there is a greater number of people at risk of stroke with worse predicted outcomes. Current treatments for ICH patients are limited to anticoagulant reversal, blood pressure lowering and in specially selected cases, surgical evacuation of the haematoma and specialised medical care. In order to develop the necessary therapeutics to improve outcomes after ICH we need alternative, novel and innovative models that closely recapitulate the human disease condition.

At the University of Manchester, we are developing alternatives to commonly used mammalian models, to reduce the reliance on animals for pre-clinical research. We have shown that larval zebrafish are excellent model systems for haemorrhagic stroke research, and have exploited the practical and scientific advantages over rodents to carry out a large-scale drug screen to identify translational therapeutics. Additionally, using biomaterials to encapsulate human blood in cell culture we have characterised a human in vitro system to investigate the pathology caused by haemotoxicity after stroke. Together, these models advance the pre-clinical toolkit for haemorrhagic stroke, and complement the commonly used mammalian models for early studies.

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