

Health Innovation Ecosystem (HIE) Seminar Spring 2020

Date: **Wednesday 25 March 2020, 1.00-2.00pm**

Place: **Room 1.100a, 115 New Cavendish Street, W1W 6UW**

Title: **“Priming” Cells for Death**

Speaker: **Rhys Mould**, PhD, Research Fellow, Research Centre for Optimal Health, LAS, University of Westminster

Abstract:

Whilst cancer mortality falls, cancer incidence continues to rise worldwide. With more patients potentially undergoing chemotherapy, there exists a need to improve the efficacy of treatments, whilst mitigating the associated side-effects. At a cellular level, the mitochondria of cancer cells alter their metabolism to support unrestrained proliferation – but in doing so expose themselves as targets for treatment. My research aimed to exploit such perturbations and use the additional role of the mitochondria as a regulator of apoptosis to sensitise cancer cells to treatment – an approach we call “priming”. This talk will highlight the results from my doctoral thesis, in which I used acetate – a short chain fatty acid produced from the gut microbiome to selectively prime cancer cells for death.

Bio:

Rhys completed his MChem in biological and medicinal chemistry at the University of East Anglia before undertaking his PhD at the University of Westminster with the Research Centre for Optimal Health. His thesis focused on cancer cell metabolism, particularly the role of mitochondria, exploiting their multifaceted roles in cancer as a target for treatment. Since completing his PhD, Rhys continued his research at Westminster as a research fellow in quantum biology, investigating the role of mitochondrial ultra-weak spontaneous emission in non-chemical signalling.