

F1/F2 RESEARCH GRANT WINNER:
DR EMILY HUGHES



PROJECT: Inflammatory crosstalk between adipose tissue and the liver

'Winning the Dr Falk Core Research Grant at this early stage in my career is a huge honour. It validates my interest and encourages me to continue to pursue a career in academic hepatology. The grant itself will allow me to spend time in the lab – an invaluable experience, which will hopefully form the basis of future PhD applications. I am very excited to start to work with a diverse group of very knowledgeable researchers, and look forward to any new information that we uncover.'

Dr Emily Hughes has just completed her degree in Medicine at the University of Southampton. She begins work as an F2 doctor at the Bradford and Leeds Teaching Hospitals carrying out her duties alongside her twelve month research project at the Department of Discovery and Translational Science, University of Leeds

'Non-alcoholic fatty liver disease is one of the most common causes of liver disease, affecting 20 – 30% of people living in the United Kingdom. For most people this will never be a problem, however for some it can have serious side effects – sometimes leading to cancer and even death. There are currently no treatments for this disease. As almost everybody with this problem is overweight, we focused our research on whether the fat itself changes how the liver functions.

'We know that in obesity fat can become inflamed. When this happens the fat releases lots of a particular type of signal called a chemokine. We have found that in people with non-alcoholic fatty liver disease the fat 'over-produces' these chemokines. We speculate that these chemokines can travel from the fat to the liver, where they can make the liver disease worse.

'Therefore, with a team from the University of Oxford, we want to analyse donated blood and tissue samples – comparing the levels of chemokines in the blood to the severity of liver disease.

'We believe that a better understanding of how fat can affect the liver would be useful in developing specific treatments for non-alcoholic fatty liver disease.

'On a personal note, this project holds particular interest for me as it attempts to address a huge and growing problem in an area that I am passionate about. I hope to explore my interest in liver disease throughout my career, and hope that this can produce real-world solutions that help improve the lives of patients living with disease.

Dr Hughes' Supervisor Dr Richard Parker comments:

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