

F1/F2 RESEARCH GRANT WINNER:

DR OLIVER SHUTKEVER



PROJECT: Chromosomal Copy Number Alterations in Gastric Intestinal Metaplasia as a Potential Biomarker for Risk of Progression to Gastric Cancer.

'Winning the Dr Falk Guts UK funding award will allow me to develop as a clinical academic with a focus on the biology of cancer and other diseases. There are now a huge number of different methods for investigating disease processes at the molecular level, but a considerable amount of experience in practical lab skills and data analysis is required to utilise them effectively. I hope to gain some of this experience by working on this project.'

Dr Oliver Shutkever is a Foundation Year 1 doctor. He has recently completed a four month rotation in colorectal surgery at University College London Hospital (UCLH) and is currently working in respiratory medicine at the same hospital. His research project, which will be carried out at the Department of Pathology at University College London (UCL), started on April 1st and is expected to run for six months, concurrently with his clinical work.

'Despite considerable advances in treatment, stomach cancer is often lethal, and less than twenty percent of people with the condition in the UK will be alive five years after their diagnosis. For many patients, by the time they develop symptoms, such as weight loss or difficulty swallowing, the cancer is too advanced for curative therapy to be successful.

'People with inflammation of the stomach – 'gastritis' – are at greater risk of developing the condition. It is possible to check for cancer in these individuals by regularly inspecting the stomach with a camera and taking small samples of stomach lining. This is unpleasant for patients and, as only a minority of them will get cancer, it would be extremely useful to be able to identify those at greater risk, so that patients at lower risk do not go through repeated invasive procedures.

'We are trying to predict the risk of developing stomach cancer by examining DNA in different parts of the stomach. DNA carries the information needed for all the cells in the body to function normally, and we believe that greater differences between DNA sequences in different parts of the stomach may be associated with an increased risk of cancer.

Our findings may help us to develop a marker of cancer risk, as well as providing valuable insights into the biology of the disease, which may aid the development of treatments or even strategies to prevent the development of cancer.

'My participation in this project has given me the opportunity to be involved in cutting-edge basic science which, unusually, has direct implications for patient care. I believe that we can substantially reduce the burden placed on individuals and society by diseases like stomach cancer by reducing the chance of disease developing, and by maximising the chances of an early diagnosis.'

Dr Shutkever's Supervisor Dr Marnix Jansen comments:

'Oliver (Ollie) is one of a rare breed of academic clinicians who realise early on in their career the importance of well-designed patient-focused research. He is also a bright and talented F1 doctor'

'He has been working with other members of my team on a project that is closely linked with the goals of the Less Survivable Cancers Taskforce, an early diagnostic test for gastric cancer. Ollie's work forms part of the prospective international ESTIMATE study which aims to investigate the potential of endoscopic disease staging of patients with chronic atrophic gastritis'.

'I anticipate that Ollie's research in my laboratory will provide the preliminary data for seed funding to investigate the potential of clonal diversity risk prediction from CNAs in a larger cohort of atrophic gastritis patients.

'The Guts UK/Dr Falk award will allow him to take concrete steps towards managing his own research funds and build his career as an academic clinician.'

