Presentation of Stroke Research Group data at ESOC

The Cambridge Stroke Research Group was very well represented at the European Stroke Organisation Conference (ESOC) early in May, with a number of presentations based on work from the Department. The first results of the Vertebral artery stenting Ischemia Trial (VIST) were presented. This was a trial coordinated from Cambridge, which included recruitment of patients from Cambridge as well as many other sites, in which we tested whether opening up narrowing in blood vessels to the back of the brain with stenting reduced the risk of stroke. The results suggested that this could be a very effective treatment and there was a 60% reduction in stroke risk in those people treated with stents compared with drug treatment alone.

Rhea Tan, a PhD student in the Department, gave an oral presentation looking at migraine in CADASIL. CADASIL is the most common genetic form of stroke and we run a national CADASIL clinic at Cambridge. One frequent feature of the disease is migraine. Rhea discussed the features of migraine in CADASIL and provided some of the first data looking at how it is best treated.

Dr Loes Rutten-Jacobs gave two oral presentations on risk factors for stroke, particularly for the Small Vessel Disease type of stroke. This causes small strokes and is also a major cause of cognitive problems. It’s a particular research interest of the Department. Dr Nick Evans, Dr Isuru Induruwa and Dr Siobhan Kelly also presented interesting work from the Department in the poster session.

The meeting was held in Barcelona and was extremely successful, with about 4000 participants. It was nice to see so much Cambridge work being presented.

Funding applications

We were recently successful in obtaining a grant from the Medical Research Council, an amount of over £1.2 million. This grant will be used to examine the role of the blood-brain barrier (BBB) in cerebral small vessel disease. The BBB is the lining of the brain blood vessels which separates the vessels from the brain, and prevents leakage of substances in the blood from crossing in to the brain and causing damage.

Specifically, the project will examine excessive leakiness of the BBB and nervous system inflammation in cerebral small vessel disease. It will include observational studies in patients with both sporadic and hereditary (CADASIL) small vessel disease as well as an intervention study to see if we can switch off the factors affecting these diseases and improve outcome in these conditions. This grant also allows us to build on a collaboration with Professor Gary Rosenberg from Albuquerque, USA.
CATCHES
The Computerised Aphasia Therapy for Chronic Aphasia (CATCHES) project started in 2013. The project looked at the usability of self-delivered speech therapy (using an iPad app) in patients who suffered speech disorders (chronic aphasia) after stroke. By coupling neuropsychological results with imaging from brain scans, this project explored the relationship between inner speech (talking in one’s mind) in chronic aphasia and functional speech (conversing with others) improvement after using the iPad-based therapy. Brielle Stark carried out this project as part of her PhD, which she has recently completed. Bri has published a paper from the project about how the iPad delivered speech therapy improved language in chronic aphasia.

Gordon Holmes Prize
Dr Nick Evans was recently shortlisted for the Royal Society of Medicine’s Gordon Holmes Prize. A total of six neurological trainees presented their work, showcasing some of the best neuroscience research in the UK over the last two years.

The presentation prompted lots of discussion about both the research itself and its implications for future stroke care.

Nick can be seen in the image presenting work from ICARUSS, his PhD project.

Listen-in
Listen-in is an NIHR i4i programme funded-project. It aims to develop an app (an easy-to-use computer program for using on phones and tablets) as a means of therapy, specifically targeting auditory comprehension deficits in post-stroke aphasia. The therapy will be embedded within a novel computer game in order to maximise engagement and encourage participants to complete a 100 hours of therapy. This project is recruiting adults who have had a stroke at least 6 months ago, speak English as their main language, have receptive aphasia (problems understanding language), and no degenerative brain disease.
For more information please contact Sonia s.brownsett@ucl.ac.uk

Goodbye Margaret
Sadly Margaret Rawlings (Professor Hugh Markus’ secretary) is leaving us in May. She will be missed by both the team and our patients, but we wish her well.

We welcome Margaret Graver and Catherine Lofthouse to the team, they will be taking over Margaret Rawlings’ secretarial role.

We are grateful to our patients for taking part in our research.
It helps us better understand cerebral small vessel disease which leads to better prognosis and treatment.

For further information on anything you read in this newsletter, please contact Dr Jane Thompson on 01223 596221 or jest2@medschl.cam.ac.uk