

University of Edinburgh 도 SMALL VESSEL DISEASE

NETWORK

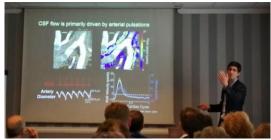


October 2019 Newsletter

News from the Network:

- The 5th meeting of the Fondation Leducq network 'Understanding the role of the Perivascular Space in SVD' took place in Paris, 15-16th July 2019. The meeting was hosted by Professor Serge Charpak and Professor Anne Joutel and organised by the Leducq fellows at INSERM.
- Professor Anne Joutel, INSERM and member of the Fondation Leducq transatlantic network led by the University of Edinburgh, was awarded the Brain Prize 2019 along with her colleagues for work on CADASIL.
- The Brain Prize meeting 2019: Silently losing the Brain – The enigma of small vessel disease, takes place 25-27th November, Copenhagen. Speakers include 2019 Brain Prize winners, along with Professor Joanna Wardlaw, CCBS.
- A UK-wide study of post stroke cognition led from the University of Edinburgh (Rates, Risks and Routes to Reduce Vascular Dementia, R4VaD) has recruited over 100 participants locally and nearly 800 participants nationally. The study aims to recruit 2000 patients within 6 weeks of stroke, with follow up for at least two years to determine rates of post stroke cognitive impairment.





Above: Professor Joanna Wardlaw opens the 5th Fondation Leducq SVD network meeting, 15-16th July, Paris. Below: Humberto Mestre, University of Copenhagen, presents his work on CSF flow.

 Congratulations to Sophie Quick, who won the David Miller Young Scientist award for her presentation 'Exploring endothelial cell dysfunction: a potential new in vivo model for Cerebral Small Vessel Disease' at the Cerebral Vascular Biology conference in Miami

Save the date!!!

Next SVD network meeting – 28th November 2019, Informatics Forum

The next University of Edinburgh Small vessel diseases research network meeting will take place on 28th November. This will be a full day event. An agenda will be circulated shortly.

Register here

This event will be Supported by the Row Fogo Centre for Research into Ageing and the Brain

Network Member Profile:



Dr Sarah McGlasson is a postdoc in Dr David Hunt's group in the UK Dementia Research Institute, investigating how neurovascular damage leads to neurological disease. Using her background in genetics and molecular biology, she studies a rare monogenic small vessel disease, RVCL, in order to understand more about how the disease is caused, to explore therapeutic options and to understand whether the mechanisms are relevant to common small vessel disease. Using overexpression and biochemical techniques she has shown that the causative mutations lead to protein mislocalisation with no loss of enzyme function. Ongoing work using super resolution microscopy is aiming to uncover the pathogenic targets of the mislocalised protein. She is also using gene editing to generate human microvascular endothelial cells with relevant mutations and is developing a microfluidic model in order to study the function of these cells in a physiological environment.

Outside of work she and her husband grow fruit and vegetables and keep chickens on a 'work-in-progress' smallholding in the Scottish Borders.

Papers of Interest:

<u>Becker, Quinn and Williams</u> (2019) Association Between Endothelial Cell Stabilizing Medication and Small Vessel Disease Stroke: A Case-Control Study. *Front Neurol*

<u>Hase et al.</u> (2019). Small vessel disease pathological changes in neurodegenerative and vascular dementias concomitant with autonomic dysfunction. *Brain Pathol.*

ladecola et al. (2019) Vascular Cognitive Impairment and Dementia: JACC Scientific Expert Panel. J Am Coll Cardiol

<u>lyonaga et al.</u> (2019) Brain perivascular macrophages contribute to the development of hypertension in stroke-prone spontaneously hypertensive rats via sympathetic activation. *Hypertens Res*

Robertson et al. (2019) Cerebrovascular Pulsatility During Rest and Exercise Reflects Hemodynamic Impairment in Stroke and Cerebral Small Vessel Disease. *Ultrasound Med Biol*

<u>Schreiber et al.</u> (2019) The spectrum of age-related small vessel diseases: potential overlap and interactions of amyloid and nonamyloid vasculopathies. *Neuropathol Appl Neurobiol*

Smeijer, Ikram and Hilal (2019) Enlarged Perivascular Spaces and Dementia: A Systematic Review. *J Alzheimers Dis*

<u>Sweeney et al.</u> (2019) In Vivo Imaging of Cerebrospinal Fluid Transport through the Intact Mouse Skull using Fluorescence Macroscopy. *J Vis Exp.*

<u>Wardlaw, Smith and Dichgans</u> (2019). Small vessel disease: mechanisms and clinical implications. *Lancet Neurol*











