

## **Swings & roundabouts**

Welcome to the 2017 RUSH newsletter, in which we look back at 2016. Thanks for your support!

RUSH enjoyed **successes**:

- A leading medical journal, *The Lancet*, published our research on platelet transfusion for brain haemorrhage (page 1).
- A new clinical research fellow joined us (page 2).
- We began a study using Edinburgh's new state-of-the-art MR-PET scanner (page 2).
- Many people donated to our research (page 3).
- We awarded the Arthur Fonville prize to two medical students (page 3).
- We identified the top ten research priorities for people with cavernomas (page 4).
- We marked World Stroke Day with a health promotion activity (page 4).
- Rustam gave his inaugural lecture as a professor (page 4).

RUSH faced some **challenges**:

- Our funding from the Medical Research Council ended in July 2016 (page 5).
- So we had to say goodbye to our fabulous senior research nurse, Chris (page 5).

Read on for more information...

## **PATCH trial published in The Lancet**

Many people take aspirin after a heart attack or stroke due to blood clotting. Aspirin works on small blood cells called **platelets** to reduce the risk of blood clots. Unfortunately, some people taking aspirin develop a brain haemorrhage. In the past many doctors have given a transfusion of platelets to these people in the hope that it would stop the brain haemorrhage growing.

THE  
LANCET



We did a type of research study called a 'randomised controlled

trial', which is the fairest test of whether a treatment works. To our great disappointment, platelet transfusion seemed to be harmful. These findings should change clinical guidelines, to recommend that patients with brain haemorrhage on aspirin or clopidogrel should not receive platelet transfusion.

### ***New fellow, new study!***



We were delighted to welcome Dr Mark Rodrigues to the RUSH team at the beginning of 2016.

Mark is a doctor training to be a consultant neuroradiologist (a specialist in interpreting brain scans). Mark obtained a prestigious fellowship from the Edinburgh Clinical Academic Training scheme, funded by the Wellcome Trust.



Mark is analysing the brain scans collected in the LATCH audit and LINCHPIN research studies. Mark also leads a new study

using a new advanced scanner – the first of its kind in Scotland – that combines two specialised kinds of imaging **to reveal details of the brain's structure and function**. The new MRI-PET scanner combines magnetic resonance imaging (MRI) and positron emission tomography (PET) into a single machine. This state-of-the-art scanner has recently been installed at the Little France campus in Edinburgh as part of a £14 million investment. We will use the MRI-PET scanner to investigate an abnormal protein called amyloid, which can build up in the blood vessels of the brain and cause strokes due to haemorrhage.





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### ***Thanks to our donors***

Many thanks for the donations to our research from patients, their families, carers and friends. In the last year, RUSH received £815.90 and the Arthur Fonville fund received £3,128.00.

Donations help us conduct and publicise our research. If you would like to fundraise for us, please contact Kerry MacKay, Individual Giving Officer at the University of Edinburgh (Tel 0131 650 9221 or [Kerry.Mackay@ed.ac.uk](mailto:Kerry.Mackay@ed.ac.uk)).

### ***Arthur Fonville Award for Stroke Research***

This award was established in memory of Arthur Fonville, a Dutch medical student, who worked with RUSH in 2011-2013 and died in September 2014.

The award is a prize for the best 1,500 word dissertation on a research project into any aspect of stroke, conducted by a medical student registered at the

University of Edinburgh in their clinical years.

The recipients of this year's prize were Vhinoth Sivakumaran and Henry Millar. They were awarded the prize for the excellent joint paper entitled "COL4A2 variants are associated with both lacunar ischemic stroke and deep ICH: collaborative meta-analyses of common genetic variation in six rare familial cerebral small vessel disease genes among 21,500 stroke cases and 41,000 controls."



*Left to right: Catherine Fonville (Arthur's mother) and Joost Fonville (Arthur's father) presenting certificates to Vhinoth Sivakumaran and Henry Millar.*



### ***Priority setting partnership for people with cavernomas***

In 2015-2016, we participated in a partnership with patients with cavernomas, their carers, healthcare professionals and information specialists to identify the top ten uncertainties about the condition. Cavernomas can cause brain haemorrhage and epileptic seizures. The number one uncertainty was, “**Does treatment (with neurosurgery or stereotactic radiosurgery) or no treatment improve outcome for people diagnosed with brain or spine cavernoma?**” For more details:

[www.cavernoma.org.uk/psp](http://www.cavernoma.org.uk/psp)

### ***World Stroke Day***

The 29<sup>th</sup> October every year is the annual focus of the campaign to reduce the global burden of stroke. The RUSH team set up a stand in the Edinburgh Royal Infirmary concourse, and invited colleagues from The Stroke

Association and Chest Heart & Stroke Scotland to provide information about stroke. Nurses conducted blood pressure checks for patients, staff and visitors – see below:



### ***Professor Salman gave his inaugural lecture***

Professor Rustam Al-Shahi Salman, lead of the RUSH programme, delivered his Inaugural Lecture as a professor of clinical neurology at the University of Edinburgh on 30<sup>th</sup> May 2016. The lecture was well attended by the public, patients, colleagues, school pupils, and

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Rustam's family. The lecture was entitled "What's the RUSH? (Research to Understand Stroke due to Haemorrhage)."



The highlights of the lecture included Rustam's use of 37 foam brains to illustrate a key fact about the brain, and his 7 year-old son knowing the answer to two questions that the many professors in the audience couldn't answer themselves! You can watch a recording here:

[https://media.ed.ac.uk/media/1\\_1conwcia](https://media.ed.ac.uk/media/1_1conwcia)

## Thanks to our Patient Reference Group

The RUSH Patient Reference Group helps the team plan and conduct research by commenting on study priorities, design and

materials. For example, after considering the methods and materials of our new MRI-PET study (see page 2), one of the Patient Reference Group's members accompanied the team when the study was reviewed by the Research Ethics Committee. The Committee approved the study – thanks, Johanna!



*Left to right: Mark Rodrigues, Johanna Carrie, Katie McGoohan, and Rustam Salman.*

## LINCHPIN-COG study is on hold

PhD student Katie McGoohan has interrupted her studies for 12 months. We hope that she will be able to resume the LINCHPIN-COG study in the Autumn of 2017. In the meantime, we will



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offer eligible patients cognitive testing in Mark's MRI PET study.

***It's au revoir, not adieu!***

RUSH's funding from the UK Medical Research Council came to an end in 2016. So we had to let our valued Senior Research Nurse, Chris Lerpiniere, move on to pastures new.

Chris writes, *"It has been an absolute privilege to be the Senior Research Nurse with the LINCHPIN study. Stroke due to haemorrhage can have the most devastating effect on people's lives, often completely out of the blue. During these difficult times I would find myself discussing participation in research with patients and families. It never ceased to amaze me that I was never told to take a running jump or chastised for bringing up research when people were under severe duress. I have met some amazingly strong people, laughed a lot as well as cried. May I take this opportunity to thank you all for your ongoing*

*participation, support for our research and for helping to increase our knowledge about this life-changing illness."*



*Although I am leaving the team, in the words of Arnold Schwarzenegger, "I'll be back!"*

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**Donations to our research programme:**

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