

# news

January 2014

ISSUE 7

## Research **Changed My Life**

**Over the Winter the Biomedical Research Units at the University Hospitals of Leicester NHS Trust will be taking part in a national campaign called "Research Changed My Life" to help patients to understand the positive effects that can result from getting involved in clinical research.**

In January we will have a patient awareness stand where patients and the public can find out about the clinical research studies we are undertaking, and about the Research Changed My Life website, which contains inspirational stories from patients around the country who have taken part in clinical studies. Whilst some of the stories are about a health improvement, others highlight different patient benefits such as improved understanding of their condition, greater confidence, or a feeling of taking control in a difficult personal situation.

On the stand, we'll also be taking pictures of clinicians and patients who support the idea that clinical research benefits our patients and helps us to improve treatments for the future.

Research participant and patient, John Darby, 71, spoke to us about his experience of taking part in research.

"The staff and the hospital helped me when I was unwell, why shouldn't I help them? Taking part in research was an

opportunity for me to repay the hospital and it benefitted me personally. I had extra ultrasound images and an MRI scan, on the really powerful scanner which wouldn't usually be used, and the researchers showed me the images afterwards. I could see what had happened before and after the stent was put in place, and how the stent allowed the blood to flow through my arteries properly. It was really interesting to see how the stents worked, and reassuring because I could see they made a difference. Seeing the damaged heart tissue made me aware of the need to look after myself better, it really forced the message home. It motivated me to change my diet and stop smoking."



Brian Lee, 80, took part in two consecutive 5 year-long research projects and also spoke about the benefits of taking part in research. Brian enjoyed sport until he was 65 then had a heart attack.

"The heart attack changed my life but taking part in research helped me to cope, helped me understand my condition. It was a real education."

"I got extra check-ups, every 4 months for 10 years, and always with the same person. It gave me peace of mind. I was willing to take a gamble on the chance that the extra drugs I was given might help, although it turned out I was in the placebo (non-treatment) arm of the study. As well as the personal benefits, I think it's important to take part in research because without it we can't make progress improving healthcare."

"I was extra lucky that the researchers also needed some patients to go to a meeting in Switzerland to talk about their experience of taking part in the study, so I even got a weekend away!"

Mr Leslie Temple, 78 took part in an observational study. He said "I was glad to take part. I hope it will help others like me in the future, and I enjoyed the day. The nurses looked after me very well."

If you are interested in taking part in research, you could join our mailing list, or you could take a look at our website, facebook and twitter (details given in the side bar). We need people who have problems with their health and also people who are healthy.



# Research Identifies New Mechanism Involved in Heart Attacks



Nilesh Samani, BHF Professor of Cardiology and Director of the NIHR Leicester Cardiovascular Biomedical Research Unit is an author on a paper published in *Nature* which describes a new mechanism that can cause heart attacks. By investigating a unique German family where heart attacks had occurred at a young age in several family members, the researchers identified mutations in two genes (GUCY1A3 and CCT7) that impair signalling by nitric oxide and increase the risk of a heart attack through increased thrombus (blood clot) formation. Interestingly, in earlier research published in *Nature*

Genetics, (Deloukas P et al. 2013), Professor Samani and colleagues had shown that a common variant in one of the genes, GUCY1A3, that is carried by up to 80% of the population, is also associated with a modestly higher risk of heart attacks. In additional studies, the researchers showed that GUCY1A3 and CCT7 impair nitric oxide production by affecting the activity of an enzyme in platelets and other cells called soluble guanylate cyclase. Stimulators of this enzyme that are safe in humans are already known, suggesting that these drugs may provide a new way of reducing the risk of heart attacks.



Professor Samani said, "This research is important for several reasons. It demonstrates that rare families afflicted

with a particular disease can provide important insights into a common disease and we are very grateful that such families are willing to participate in research. It also shows the power of genetics to identify new disease mechanisms that could lead to new and widely applicable treatments. This is precisely one of the objectives of the BRU".

## GENVASC Team Wins CLRN Award

Staff working on the GENVASC project, which asks patients having an NHS Health Check at their GP Practice to allow us to take a little bit of blood and access some of their medical information, have won an award for developing a way for lots of people to take part in research easily. The team have supported Nurses and Healthcare Assistants in GP Practices to recruit an impressive 3800 people to the project in the last 9 months.

***Pictured receiving the award from Professor David Rowbotham (far left of picture) are Chris Greengrass (Project Manager), Emma Beeston (Research Nurse) and Joy Uzoma (Research Administrator).***



# New Stroke Research Supports Intensive Blood Pressure Lowering



**BRU researchers have contributed to a landmark study which has revealed a new way to treat strokes caused by bleeding inside the brain. The study found that intensive blood pressure lowering in patients with intracerebral haemorrhage, the most serious type of stroke, reduced the risk of major disability and improved chances of recovery by as much as 20 per cent.**

The study, which involved more than 2800 patients from 140 hospitals around the world, was published in *The New England Journal of Medicine*.

Professor Robinson, Deputy Head of the University of Leicester's Department of Cardiovascular Sciences, was the UK co-ordinator for the study and co-authored the paper.

The study was led by the George Institute for Global Health, in Sydney, Australia.



Professor Robinson said: "Stroke is the third most common cause of death in the UK and the most common

adult cause of neurological disability. Approximately 1 million people are living with the consequences of stroke in the United Kingdom, a third with life-changing severe disability. Every

year an estimated 152,000 people in the UK have a stroke and intracerebral haemorrhage – spontaneous bleeding within the brain most often due to hypertension – accounts for at least 10 per cent of all cases.

"Intracerebral haemorrhage kills about half of those affected within one month and leaves most survivors disabled, and to date there is no specific treatment for this type of stroke.

"The results of the study show that intensively reducing high blood pressure within 6 hours of onset of a bleeding-related stroke is safe, and results in a significant shift from being dead and dependent to being alive and independent after stroke. Because it involves treatment with already available blood pressure-lowering treatments, the results should be easy to implement in all hospitals and be of benefit to patients. It is important to reinforce that stroke is a medical emergency, and individuals who suspect that they may have had a stroke should dial 999 and seek urgent medical attention.

"Leicester has a long-standing interest in acute stroke and blood pressure research, and hosts the NIHR Trent Stroke Local Research Network. There are many opportunities for Leicester patients presenting with stroke to participate in research to improve outcomes for future patients with stroke."

Professor Bruce Neal of The George Institute and The University of Sydney said the study challenges previous thought about blood pressure lowering in intracerebral haemorrhage.

He said: "The study findings will mean significant changes to guidelines for stroke management worldwide. They show that early intensive blood pressure lowering, using widely available therapies, can significantly improve the outcome of this illness.

"We hope to see hospital emergency departments around the world implement the new treatment as soon as possible. By lowering blood pressure, we can slow bleeding in the brain, reduce damage and enhance recovery.

"The study findings are tremendously exciting because they provide a safe and efficient treatment to improve the likelihood of a recovery without serious disability – a major concern for those who have experienced stroke.

"The only treatment option to date has been risky brain surgery, so this research is a very welcome advance."

*"Every year an estimated 152,000 people in the UK have a stroke..."*

**Professor Tom Robinson**



# Groundbreaking procedure used to tackle resistant high blood pressure

Researchers at the BRU have successfully used a novel “paper-clip” sized vascular coupling device to tackle resistant high blood pressure.

The operation was carried out on Monday 16 September at Glenfield Hospital by Professor André Ng (pictured), Professor of Cardiac Electrophysiology at the University of Leicester and Consultant Cardiologist at Glenfield Hospital.

The trial – called ROX CONTROL HTN – is designed to evaluate a novel treatment, called the ROX coupler, in patients with resistant hypertension.

The ROX Coupler is a small metal stent made of nitinol which when deployed, acts like a “paper-clip” joining an artery and a vein together in the groin area (called iliac vessels) to allow blood to flow between the high pressure artery and the low pressure vein.



Professor Ng said: “We hope this groundbreaking treatment will provide a life-line to patients who have had all the drugs prescribed and yet their blood pressure remain uncontrolled”

## New Website

The NIHR Cardiovascular BRU has a new website which can be seen at <http://www2.le.ac.uk/projects/bru>. The new website contains details of our major studies and stories from people who have taken part in them. There is also information on how to get involved in research, either as a participant in a study or by helping us design and manage our research projects.

**Want to receive** the newsletter regularly and express your views on cardiovascular research?

Join our mailing list by emailing [rp237@le.ac.uk](mailto:rp237@le.ac.uk).

Search 

Leicester Cardiovascular Biomedical Research Unit Volunteer to join our research review panel.

Contact Rebecca on [rp237@le.ac.uk](mailto:rp237@le.ac.uk) for more information.

The Biomedical Research Unit administrator, Department of Cardiovascular Sciences, University of Leicester, Glenfield Hospital, Leicester, LE3 9QP, UK

tel 0116 204 4737  
email [lcbru@le.ac.uk](mailto:lcbru@le.ac.uk)  
[www.le.ac.uk/bru](http://www.le.ac.uk/bru)



University Hospitals of Leicester NHS Trust

