National Investment in Heart Research in Leicester

Leicester Cardiovascular Biomedical Research Unit at Glenfield Hospital is part of a multi-million pound scheme to prevent, diagnose and treat ill health. It is one of 16 Biomedical Research Units around England funded by the National Institute for Health Research (NIHR) a strategic research funding body within the NHS.

The Unit is specifically aimed at improving the diagnosis, prognosis and treatment of coronary heart disease and hypertension (high blood pressure). It provides an infrastructure—people, space, and equipment—which allows researchers to complete challenging or complex projects about cardiovascular conditions.

One important piece of work already happening at the Unit involves a dedicated research database, the first of its kind in the UK, which is linked to a collection of blood, urine and other tissue samples donated by patients and healthy volunteers who have consented to have their medical notes accessed by researchers.

A building project to provide essential facilities for researchers to complete their life-saving work has been recently undertaken. The facility, called the Translational Medicine Facility, provides consulting rooms, an exercise testing suite, an echocardiology suite and a lab. Access to these facilities will enable new research projects to start, and help translate scientific discoveries in the lab into improvements in patient care more quickly.

First Patient Recruited into BRICCS Sample and Data Collection

Leicester residents today became the first recruits into a major new research programme at Glenfield Hospital, in which participants allow researchers to use their clinical data to help find new ways to improve the diagnosis, prognosis and treatment of cardiovascular conditions. Patients with a variety of heart conditions are asked if they will volunteer to allow researchers to securely link their anonymous clinical data into a research database which will be used for multiple research projects. This data is linked to samples of blood and urine from the participant, and will enable us to quickly translate groundbreaking science from the laboratory into improved clinical care.

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Patients are Committed to Helping Future Generations with **Heart Problems**

By agreeing to participate in BRICCS patients are paving the way to improved healthcare for future patients. Anticipated improvements include more accurate understanding of risk, exploring the role of genetics in heart disease, developing more accurate tests, investigations which will enhance doctors decision making at the bedside and identification of markers, indicators and tests for disease outcomes.

BRICCS is a system for capturing and coding clinical information about patients with cardiovascular disease specifically for research purposes and for facilitating recruitment of patients into research studies in the future. All patients attending the relevant departments of the University Hospitals of Leicester will be invited to participate and provide researchers with consent to access their clinical data.

Patients who agree to have their data added to BRICCS will undergo all the normal treatment for their condition. They will be asked to supply a sample of blood and urine and answer questions about their medical history and their families medical history.

Conditions of the heart and circulation are very common but their causes are not fully understood. Individuals also vary in their risk of disease, to response to treatment and side effects from treatment. Some of this variation may be related to a persons genetic makeup. In other situations we may be able to identify changes in the blood or urine that can predict a persons response.

Alongside the BRICCS database the Biomedical Research Unit is creating a major store of blood, urine and other samples from people who have heart or vascular conditions. By analyzing and comparing these samples to those from healthy volunteers and relating the findings to the patients medical history , response to treatment and progress we will get a much better understanding of disease mechanisms.

We are very grateful to everyone who agrees to have their clinical data enrolled into the BRICCS database.

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**Have Your Say About Cardiovascular Research**

The Leicester Cardiovascular Biomedical Research Unit would like YOU to get involved in its work, not just as a participant in research, but by expressing your views and opinions on heart and stroke research. This is your chance to influence how we invest in local research, meet up with others who are interested in heart health and do training about research and representing the views of patients and the public in the NHS.

There are lots of ways you can get involved in Leicester Cardiovascular Biomedical Research Unit. To join our mailing list and receive this newsletter, other announcements and invites to participate in polling, surveys and attend public events contact Rebecca Pritchard on the details given below.

You can also join the Facebook group “Public and Patient Involvement Forum of Leicester Cardiovascular BRU”; the link is below. Through this group you can view our news, see upcoming events, post your opinions and engage in discussion about cardiovascular research locally.

There will be opportunities to meet research and health promotion staff out and about at various venues throughout the year. Details of pending roadshows will be posted on the Biomedical Research Unit webpages and facebook group, and sent to members of the mailing list. At these events you can find out about cardiovascular health, the Biomedical Research Unit at Glenfield Hospital and the work being undertaken by researchers locally. Staff will be on hand to hear your opinion on our work, and answer any questions.

You may be interested in volunteering as a representative of patients and the public to provide the perspective of patients and the public at our internal meetings. To do this you should have a link to a patient or other interested group whom you can represent.

You could also volunteer to join our applicant research review panel, and give your views on research project applying to the Biomedical Research Unit for support.

Contact Rebecca Pritchard on 0116 258 3473 - email: rp237@le.ac.uk
http://www.facebook.com/group.php?gid=124013907609617
Prof Bryan Williams is making good use of the new research facilities at Glenfield Hospital for his British Heart Foundation funded research projects. PATHWAY (Prevention and Treatment of Resistant Hypertension with Algorithm Based Therapy) looks at the treatment of hypertension and aims to improve existing treatments for hypertensive patients whose blood pressure remains uncontrolled.

Though complementary, the three Pathway studies focus on different aspects of hypertension treatment. Firstly each volunteer will have a blood test for the kidney hormone renin, to recognise patients with high blood pressure who have too much salt in their body. Secondly, the trials will test new combinations of drugs, which are more effective and can eliminate salt without having a negative effect on blood glucose. Thirdly, the project aims to change clinical practice so a variety of drugs are started simultaneously to prevent the body from trying to oppose what each drug is doing to lower blood pressure.

Prof Williams is also investigating novel devices to improve the accuracy of monitoring blood pressure. Accurate measurement of blood pressure is essential for assessing risk and monitoring the effectiveness of treatment. This study will evaluate the performance and accuracy of a novel wrist watch-like device which incorporates a sensitive pressure sensor in the strap. The sensor continuously monitors blood pressure when placed over the artery in the wrist and worn for 24-hours. The researcher is looking at the accuracy of the device in patients and healthy volunteers compared to measurements made using conventional commercially available devices. If successful, the new device may provide a new, easy to use and unobtrusive tool which may be used by clinicians to improve the accuracy of blood pressure monitoring and the duration over which measurements can easily be made.

Research in the UK, and throughout Europe and America, is tightly monitored and has to comply with lots of legislation to ensure it is scientifically sound and ethical. Part of this involves getting permission from the appropriate authorities to do research.

Before a researcher can start a project they must get permission from their local NHS Trust, a Research Ethics Committee and, if they are researching a medicine or a medical device, the Medicines and Healthcare Regulatory Agency. Research about medicines and medical devices also needs permission from the Medicines and Healthcare Regulatory Authority. This Government Body is part of the Department of Health, and is the UKs competent authority. Every country that is a member of the EU has its own competent authority on medicines and medical devices.

To get permission from the local NHS Trust the researcher must demonstrate that they, and their team, are qualified to do research, and have the resources to do their research. Every NHS Trust has its own Research and Development Office where staff perform a series of checks on proposed research projects. Importantly they require that a proposed piece of research has been reviewed by other healthcare professionals who can give an opinion on the scientific merit and the medicine of the research.

Research Ethics Committees look at whether a proposed piece of research protects the rights, safety, dignity and wellbeing of participants. They examine things like the risks and burdens to the participant, the potential benefit to the participant and the materials used in the research. Research Ethics Committees are independent and made up of members of the public called lay-members, doctors, healthcare professionals and academics. At least a third of each committee is made up of lay-members.

Patients and volunteers can be confident that research is managed in such a way as to maintain their safety, welfare and dignity.
Cardiovascular Wordsearch

G L E N F I E L D A S T R E S S
R A N D O M N I N F O R M E D C
A O R T A Z I F S E L P M A S I
N O T E S Y R E C H O S U I T E
T H R O M B U S Q U C S C O E N
X A L I Q U O T R E A T M E N T
H E A L T H Y T T L R E S T I
E T H I C S R L L N N O E R E F
A S A D T F E E E C G E K T U I I
L E C A J S H E A R T E R N D C
T R A N S L A T I O N A L G A M
H Q D A T A B A S E R T F R N A
C H E S T C A V I T Y G D E O R
A Q M P A T H W A Y M I N S N G
R Q I N A M A S B L O O D E Y O
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M E D I C I N E O A A F T R O G
T N E S N O C G E E N G A C U N
B I O L O G Y E V L A V Z H S A

Academic    Chestcavity    Glenfield
Aliquot    Cardiology    Grant
Anatomy    Consent    Healthcare
Angiogram    Data    Healthy
Anonymous    Database    Heart
Aorta    Diet    Informed
Biology    Ecg    Lifestyle
Blood    Echosuite    Local
Cannula    Ethics    Medicine

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Volunteer to join our research review panel.
Contact Rebecca on rp237@le.ac.uk for more information.