Leicester Respiratory Biomedical Research Unit
Leicester Cardiovascular Biomedical Research Unit
Leicester-Loughborough Diet, Lifestyle and
Physical Activity Biomedical Research Unit

NHS
National Institute for
Health Research

Leicester research roadshow

19 March 2014

Programme and exhibitor guide

The mission of the National Institute for Health Research (NIHR) is to maintain a health research system in which the NHS supports outstanding individuals, working in world class facilities, conducting leading edge research focused on the needs of patients and the public. The NIHR is a large, multi-faceted and nationally distributed organisation, funded through the Department of Health to improve the health and wealth of the nation through research.

The NIHR Biomedical Research Units (BRUs) undertake translational clinical research in priority areas of high disease burden and clinical need. The BRUs are based in leading NHS organisations and Universities enabling some of our best health researchers and clinicians to work together to develop new treatments for the benefit of patients.

Event **programme**

09.30	**Arrival & Coffee**	
10.00	**Welcome**	**Carolyn Maloney** Research and Development Manager University Hospitals of Leicester NHS Trust
10.10	**SCAD patients** Leicester Cardiovascular BRU	**Becks Breslin** **Debbie Oliver** **Nikki Schulze**
10.40	**Surgical research** Leicester Cardiovascular BRU	**Marcin Wozniak** Research Fellow
11.10	Leicester – Loughborough Diet, Lifestyle and Physical Activity BRU	**Tom Yates** Senior Lecturer
11.30	**INTAKE study** Leicester – Loughborough Diet, Lifestyle and Physical Activity BRU	**Jessica Douglas** PhD Student
11.40	**Extra CKD study** Leicester – Loughborough Diet, Lifestyle and Physical Activity BRU	**Alice Smith** Senior Research Associate
11.50	**HIT translating benefits to clinical population** Leicester – Loughborough Diet, Lifestyle and Physical Activity BRU	**Charlotte Jellyman** PhD Student
12.00	**Sedentary behaviour** Leicester – Loughborough Diet, Lifestyle and Physical Activity BRU	**Matt McCarthy** PhD Student
12.10	**EXCEED study** Leicester Respiratory BRU	**Martin Tobin** Professor of Genetic Epidemiology and Public Health and Medical Research Council (MRC) Senior Clinical Fellow
12.30	**Pharaoh study** Leicester Respiratory BRU	**Lauren Sherar** Lecturer in Physical Activity and Public Health, Loughborough University
12.50	**Patient and Public Involvement**	**Dr Paula Wray** NIHR Collaboration for Leadership in Applied Health Research and Care
13.05	**Q&A with the Panel and Chair**	
13.15	**Lunch** **Viewing exhibitions** **Demonstrations** **Interaction with researchers**	
15.00	**Close**	

The **presentations**

10.10 **SCAD Patients**
Leicester Cardiovascular BRU

Spontaneous coronary artery dissection (SCAD) is a rare condition that typically affects young, healthy people, whose first presentation is often with an unexpected heart attack. SCAD is a poorly understood condition, and a group of patients who have experienced it have worked together to drive the research agenda in the UK. The Leicester Cardiovascular Biomedical Research Unit is proud to have been approached by this group about establishing a UK research project to complement the work of the world-renowned Mayo Clinic in the USA. Dr David Adlam will lead this work locally.

10.40 **Surgical Research** — **Marcin Wozniak**
Leicester Cardiovascular BRU — Research Fellow

As many as 30 percent of people who have a heart operation suffer organ failure as a consequence of the trauma and stress their body experiences during surgery, according to the British Heart Foundation (BHF). The research that Professor Murphy and Dr Marcin Wozniak will pursue at the Unit has potential to make a significant impact on the wellbeing of patients who need to undergo surgery.

11.10 Leicester – Loughborough Diet, Lifestyle and Physical Activity BRU — **Tom Yates**
Senior Lecturer

11.30 **INTAKE Study** — **Jessica Douglas**
Leicester – Loughborough Diet, Lifestyle and Physical Activity BRU — PhD Student

The Effects of Exercise on Appetite – INTAKE Study

Exercise is often prescribed as a method for weight control. It has been suggested that there is an interaction between the amount of exercise we do and how much we eat. The INTAKE study aims to see how exercise influences what we eat, and to see if exercise is useful for weight control. We'll do this by gaining a greater insight into how some key appetite regulating hormones are influenced by exercise.

11.40 **Extra CKD Study**
Leicester – Loughborough Diet, Lifestyle and Physical Activity BRU

Douglas Gould
Senior Research Associate

ExTra CKD: Exercise Training in Chronic Kidney Disease

Chronic kidney disease (CKD) is a long-term condition where the kidneys do not work as well as they should. People with CKD are at a much greater risk of developing heart disease compared to healthy people and also have muscle wasting, which makes it harder for them to perform daily activities. Regular exercise can help to manage or prevent these problems. In this study, we are investigating whether a combination of aerobic and muscle-building exercises can improve both the heart health and the muscles of kidney patients, and help them to enjoy a better quality of life. The kidney patients who volunteer to take part will either undertake 12 weeks of aerobic exercise (walking/cycling) or 12 weeks of aerobic exercise plus muscle building exercises. Before and after the exercise programs, we will carry out a variety of tests to measure fitness, muscle size and strength, heart function and quality of life, to compare the effects of the different types of exercise.

11.50 **HIT translating benefits to clinical population**
Leicester – Loughborough Diet, Lifestyle and Physical Activity BRU

Charlotte Jellyman
PhD Student

High intensity interval training, or HIT is defined as; repeated bouts of vigorous aerobic exercise e.g. running or cycling, performed at a high intensity for a brief period of time, interspersed with recovery intervals of low to moderate intensity activity or complete rest. HIT has been used for decades, originally by football players and subsequently endurance athletes to improve fitness and the ability to spend longer exercising at a high intensity. Because of the beneficial effects on heart and lung function, HIT has more recently been used to improve the fitness of patients with heart and lung failure, or circulatory problems such as stroke victims, with positive outcomes. In response to the growing obesity crisis, and evidence which shows that people are not completing the minimum recommended volume of exercise per week, HIT has been proposed as a more time efficient, more enjoyable mode of exercise. This talk will provide a brief introduction to HIT, its effects on health and quality of life, safety concerns and the practicality of implementing HIT into a daily routine.

12.00 **Sedentary Behaviour**
Leicester – Loughborough Diet, Lifestyle and Physical Activity BRU

Matt McCarthy
PhD Student

Introducing the largely overlooked concept of sedentary behaviour, including what it is, its prevalence in society, and why it is a problem to our health. It will then outline basic initiatives that could be adapted into a person's daily lifestyle to offset the negative impacts of prolonged sitting, alongside where this leaves people with "unavoidable" sedentary occupations. The potential ability of a person's fitness to protect them from the influences of prolonged sitting will be discussed, introducing the idea that one may be 'fit enough to sit'. This will lead nicely into a quick overview of my "FIT 2 SIT" study and how I intend to implement this research into practice.

12.10 **EXCEED Study**
Leicester Respiratory BRU

Martin Tobin
Professor of Genetic Epidemiology and Public Health and Medical Research Council (MRC) Senior Clinical Fellow

Professor Martin Tobin is conducting a large scale research project called the Extended Cohort for E-health, Environment and DNA (EXCEED) study. With funding support from the Medical Research Council, the EXCEED study aims to identify genetic, environmental and lifestyle factors associated with health and disease, with a focus on lung disease. The study is hoping to recruit just over 5000 participants. Of these 4200 will be recruited through their GP surgery and 1000 through NHS stop smoking services. People who decide to take part will be asked to complete a questionnaire about their health and their lifestyle, to give a saliva sample (to allow for DNA testing) and to have a simple breath test done that measures their lung function. They will also give consent for this information to be linked with their NHS health care record. The study aims to then use the information collected to meet its long term aim of improving patient care through better prevention, diagnosis and treatment of a wide range of illnesses.

EXCEED Study Contact Details:

Tel: 0116 2525997
Email: exceed@le.ac.uk

12.30 **Pharaoh Study**
Leicester Respiratory BRU

Lauren Sherar
Lecturer in Physical Activity and Public Health, Loughborough University

As a collection of lung conditions, Chronic Obstructive Pulmonary Disease (COPD) costs the NHS in excess of £800 million per year. Within COPD patients, a significant number with low levels of airway obstruction report high levels of perceived disability. This may be attributable to the viscous cycle of physical inactivity seen with progressive COPD-induced breathlessness. The aim of Physical Activity and Respiratory Health (PhARaoH) study is to objectively measure physical activity and sedentary behaviours of COPD patients and males and females of the same age but without COPD. COPD patients will also be asked to share their thoughts, in an interview, on coping with and managing their disease and whether (and how) they feel disease may limit their activity levels. The PhARaoH study started recruiting in February 2014 and is one of the largest observational studies objectively measuring physical activity in COPD patients; recruiting approximately 650 adults aged between 40 and 75 years. The talk will provide an overview of the objectives of the study, the methods and how the results could lead to a positive change to the lives of people with COPD. The specific involvement of patients and the public in shaping the study will also be discussed.

12.50 **Patient and Public Involvement**

Dr Paula Wray
NIHR Collaboration for Leadership in Applied Health Research and Care (CLAHRC)

Public Involvement in the Collaboration for Leadership in Applied Health Research and Care East Midlands.

Patient and Public Involvement (PPI) is having a significant impact on health research outcomes. Researchers, clinicians and the public are working in partnership to produce interventions and services that are effective and in line with the needs of the region's population. PPI is more than consultation and we are now seeing more appropriate, proportional and representative involvement throughout the research process; from identification of the priorities through, ethics, project design, data analysis, dissemination and implementation. The presentation will give an overview of the CLAHRC East Midlands PPI Programme including; the Patient and Public Partners' Council; training for patients and public, trust staff and researchers; and the East Midlands Centre for Ethnic Health. There are many opportunities to be involved within the CLAHRC but also with a growing PPI network in the East Midlands there are increasing possibilities to have a voice and be heard.

Exhibitor Listings

NIHR Leicester Respiratory BRU

The NIHR Leicester Respiratory BRU is a partnership between University of Leicester and University Hospitals of Leicester NHS Trust. In 2012 the respiratory research department became part of a multi million pound government investment by the NIHR, to become one of only twenty BRU's within England. The Unit will focus on promoting the development of new and effective therapies for the treatment of respiratory diseases including severe asthma and COPD. The funding has allowed the development of a specially designed unit including clinical space and specialist team allowing first class investigations into lung disease.

Our research depends on the support of our volunteers and without them we would not be able to conduct world class research. Patients and the public can get involved at all stages of the research process from being a research volunteer to helping have an input into shaping our research ideas and becoming a member of our public and patient involvement group.

Contact details:

Tel: 0116 2583370 · **Website:** leicsrespiratorybru.nihr.ac.uk
Email: leics.respiratorybru@nhs.net

Follow us on Twitter @NIHR_LRBRU
Find us on Facebook NIHR Leicester Respiratory Biomedical Research Unit

NIHR Leicester Cardiovascular BRU

The Leicester Cardiovascular BRU at Glenfield Hospital aims to improve the diagnosis, prognosis and treatment of coronary heart disease and hypertension (high blood pressure). The unit provides state-of-the-art facilities, equipment and staff to assist researchers in their complex projects. The unit is one of 20 units around England funded by the NIHR, a strategic research funding body within the NHS. The unit is a partnership between the University of Leicester and University Hospitals of Leicester NHS Trust. The Unit's director is Professor Nilesh Samani and the manager is Dr Martin Batty.

Centre of Exercise and Rehabilitation Science PPI Group

"We are a small group of patients and members of the public who are all volunteers and part of the Centre of Exercise and Rehabilitation Science, PPI group. Our aim is to bring our first hand rehab experiences to a number of research projects. These are aimed at improving and building the best programme of rehabilitation to help cardiac and pulmonary patients have a better long term recovery, and in turn, have a more promising future.

Our job is to look over the shoulders of those conducting this important work to ensure two things; as patients and members of the public we add to the research mix by keeping the projects and their leaders in touch with the reality of our practical patient rehabilitation experience and those of our colleagues."

NIHR Leicester-Loughborough Diet, Lifestyle and Physical Activity BRU

The Leicester-Loughborough Diet, Lifestyle and Physical Activity BRU is funded by the NIHR.

By harnessing the power of experimental science we will explore and develop innovative lifestyle interventions to help prevent and treat chronic disease for the benefit of all. The BRUs undertake translational clinical research in priority areas of high disease burden and clinical need.

The aims of the BRUs are to:

- drive innovation in the prevention, diagnosis and treatment of ill-health
- translate advances in medical research into benefits for patients.

www.ll.dlpa.bru.nihr.ac.uk

We also have a Twitter feed @activtybru and Google+ page.

Leicester Diabetes Centre

Leicester has a strong tradition in excellence in diabetes care dating back 60 years to the pioneering work of Doctor Joan Walker, who established the first community diabetes clinics and the first diabetes research nurses in the UK. But it was only 12 years ago that Professor Melanie Davies started in clinical research with the support of one nurse. Since then, Professor Davies and colleague Professor Kamlesh Khunti have developed a talented and diverse team of over 120 researchers, clinicians, and educationalists working together on an innovative research portfolio.

Leicester has a National and International reputation for research excellence. Leicester Diabetes Centre is leading or collaborating in a number of major studies including DESMOND Diabetes Studies, the Let's Prevent and PROPELS studies, diabetes screening studies, INVOLVE study and multinational ADDITION, ORIGIN, NAVIGATOR and HOPE 3 studies.

Results from many of these studies have made an impact on policy including the Department of Health Vascular Health Checks Programme and the NICE Guidance on Early Detection and Prevention of Diabetes in High Risk Populations.

To undertake our research we have successfully acquired funding NIHR grants including a local CLAHRC and BRU in Diet, Lifestyle and Physical Activity

www.leicesterdiabetescentre.org.uk

University of Leicester's new Centre for Medicine

The University of Leicester's new Centre for Medicine represents the most exciting opportunity we have to make the next leap forward in Training Tomorrow's Doctors, Revolutionising Patient Care and Fighting Chronic Disease. Come along and find out how this incredible new Centre will enable our leading academics and researchers to:

- deliver a 'Rapid Response Curriculum' reactive to the ever changing and complex healthcare environment. The doctors of tomorrow trained at Leicester will have immediate access to the latest research breakthroughs and developments in healthcare policy and practice to ensure they are fully equipped to deliver safe, compassionate and holistic care on their first day on the wards

- actively involve patients in the teaching curriculum to ensure doctors develop the necessary skills to communicate with compassion and empathise with patients and families from all communities. As doctors, nurses and other healthcare professionals are all involved in treatment and care it is essential they also work well as a team. This is why we want to embed inter-professional working into our Curriculum and aim to create a new state-of-the-art facility that promotes collaboration
- speed the translation of world-leading applied research into the prevention, detection, management and treatment of chronic disease to save many more lives. Chronic diseases are the world's biggest killers. We aim to drastically reduce the number of families tragically affected by Stroke, Diabetes, Respiratory, Heart and Kidney Disease.

Healthwatch Leicester

healthwatch Leicester

Healthwatch Leicester is the independent consumer champion for health and social care services within the city. Our aim is to give the people and communities of Leicester a stronger voice to influence and challenge how health and social care are provided locally. We want to hear from city residents about their experiences of local services such as doctors, dentists, hospitals, day care centre or care homes. We then work on their behalf to make sure their views are heard, acted on and services are improved to meet the needs of local people.

University *of* Leicester

6821_03/14