

#### **Leicester Respiratory Biomedical Research Unit**

#### National Institute for Health Research

# News

April 2014, Edition 2

# Official opening of the Leicester Respiratory Biomedical Research Unit on 27 September 2013

The Biomedical Research Unit (BRU), based at Glenfield Hospital Leicester, was officially opened by Leicester City Mayor, Sir Peter Soulsby on 27 September 2013.

In 2012, the Leicester research respiratory research department was awarded £4.5 million NIHR funding over five years, plus £2.1 million capital funding by the Department of Health to develop a new specialist unit for the region.

The BRU, a partnership between Leicester's Hospitals and University of Leicester, is one of only 20 specialist BRU's in the UK.

One of the central aims of the Leicester Respiratory BRU is to help develop new medicines and effective therapies for the treatment of respiratory diseases such as severe asthma and chronic obstructive pulmonary disease (COPD) and lung diseases including tuberculosis and cancer.

Andrew Wardlaw, Professor of Allergy and Respiratory Medicine, Director of the Respiratory BRU and the Institute for Lung Health, explains: "The award represents a major recognition of the high quality of research into respiratory disease undertaken in Leicester over the last decade. It gives much deserved



international recognition for our research, particularly into asthma and COPD.

"The award is a great tribute to the hard work undertaken over the last 20 years by all the members of the respiratory team at Glenfield Hospital, as well as the scientists at the University of Leicester and Leicester Institute for Lung Health, to establish a first class research programme underpinned by a first class clinical service."

Leicester City Mayor, Sir Peter Soulsby was asked to unveil the new unit as it is something close to his heart. Previously the Head of Regions for the British Lung Foundation and responsible for their patient-led 'Breathe Easy' groups, he got to know many who suffered from

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respiratory disease and to understand the desperate need for research. He said: "As both a member of the public and now as City Mayor of Leicester, I have maintained a keen interest in the health of our local population."

"We are all excited that a national respiratory health research centre has been established within our community. We hope that the progress generated from the work conducted within the unit will lead to many local as well as national health improvements in this important clinical area."

The official opening began with a series of presentations from Respiratory BRU Director Professor Andrew Wardlaw, COPD Theme Lead Professor Chris Brightling, Research Governance & Patient and Public Involvement (PPI) Lead Sarah Terry and Pat Brickley & Colin Hurst who are active research volunteers and PPI members. Guests then attended the unveiling followed by a guided tour of the new facility. During the tour guests were given demonstrations and

an insight into what research takes place at the unit by the experts who work within it. The tour included talks about the tissue processing laboratory, the exercise laboratory and the respiratory testing room.

In the afternoon the unit was opened up so that the public and patients had the chance to look around the facility and once again talk to the experts who work within it. This opening day gave patients and the public the unique chance to visit areas that normally they would not be able to experience, such as the specialist laboratories. This open afternoon was also a great opportunity for the non-patient facing staff to meet the volunteers who provide so much of their time to helping us with our vital research. Our next open day is in June, please visit our website for full details.

For further information about the BRU and photographs from the open day, please visit our website

www.leicsrespiratorybru.nihr.ac.uk





#### **Leicester Respiratory BRU** welcomes **Professor David Cousins**

The unit is delighted to welcome Professor David Cousins to the team. Professor Cousins has recently joined from King's College London where he was a Senior Lecturer and Principal Investigator in the Medical Research Council (MRC) & Asthma UK Centre for Allergic Mechanisms of Asthma. His research interests centre around the impairment of the immune system in asthma and other respiratory diseases. His research plans are focussed on particular cells of the immune system that produce inflammatory proteins that cause inflammation in the lungs and a worsening of symptoms in patients. For several years his work has examined the role of T-cells (a type of white blood cell) in allergy and asthma. More recently he has been investigating a new cell type, called innate lymphoid cell, that scientists did not know existed until very recently. These new cells may be very important in causing inflammation in the lungs, especially in response to viruses like the common cold virus. He will be continuing his work on these new cells at the BRU with the aim of better understanding their role in respiratory disease. A deeper understanding of these cells will hopefully enable us to develop new and better medicines to treat respiratory diseases.

# **New PhARaoH Study**

An exciting new study has started at the BRU. Dr Lauren Sherar, Loughborough University was awarded funding from the Department of Health to conduct a research study into physical activity and respiratory health. Dr Sherar is collaborating with the BRU to undertake this project and is making good use of the excellent facilities.

So what is the PhARaoH Study about? The PhARaoH study stands for Physical Activity and Respiratory Health study. Chronic Obstructive Pulmonary Disease (COPD) is a lung disease that costs the NHS in excess of £800 million per year. COPD is under diagnosed and patients have long term obstruction of airflow in their airways that can cause difficulty or discomfort in normal breathing. Within COPD patients there are many that have low levels of airway obstruction but still report high levels of disability. This may be because many COPD patients find it difficult to do physical activity and become very inactive. The aim of the PhARaoH study is to measure physical activity and inactive behaviours of COPD patients. The study will also look at

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 information from the study will be used to inform lifestyle and physical activity programmes that may be developed specifically for COPD patients. The interviews will provide a 'voice' to COPD patients providing valuable insights into living with COPD and the feelings and experiences surround exercise. This is essential for ongoing care.



#### **Patient and Public Involvement (PPI)**

Dr Sherar and her study team met with the PPI group to gain their feedback on the design of the study and the group were also asked to proof read the study documents. There was extremely valuable feedback from the group. The study documents were changed according to the groups comments, making them more reader friendly and understandable to a member of the public and also ensuring that key information was included that would be important to a research volunteer. The group also had excellent ideas for recruitment of research volunteers which is proving successful as the study team have currently recruited over 400 patients already.

If you would like to know more about the study please visit the PhARaoH website www.pharaohstudy.com or contact 01509 228225.

If you would like to get involved as a member of the PPI group please contact the BRU PPI Lead, Sarah Terry on 0116 2502670 or email sarah.terry@uhl-tr.nhs.uk

# Sing to **Breathe Easy**

A singing group called 'Sing to Breathe Easy' came to sing in our BRU on the 21st January 2014.

All who watched thoroughly enjoyed the performance. Songs included 'California Dreaming' and a parody of 'My Favourite Things' which was allegedly sung by Julie Andrews on her 69th birthday. You can watch a short clip from their performance on our Vimeo page.

Sing to Breathe Easy are a group of people with breathing problems who meet weekly to sing together. Singing makes them feel better, it helps make them breathe easier and also helps increase lung capacity. They also find it great fun.

The group sing songs from films, old pop songs and old favourites, and learn the songs by ear.

The group meets in the Music Room at the back of St James the Greater Church on London Road every Tuesday 1pm -

3pm (school term times only).

To join or have a chat please phone: Veronica: 0116 2703143 Jan: 0116 2911534/ 07730685485 Email: veronica.matthnew@tiscali.co.uk Facebook: Sing to Breathe Easy



### **Leicester Research Roadshow 2014**

Leicestershire's three Biomedical Research Units (BRU) held a Public Open Day on Wednesday 19 March, 2014.

The event was attended by over a hundred members of the public and showcased the research of the Cardiovascular; Diet, Lifestyle and Physical Activity; and Respiratory BRUs.

The event was opened by Carolyn Maloney, Head of Research Operations at the University Hospitals of Leicester, who gave an overview of how research processes are managed by the Trust before handing proceedings over to the Cardiovascular BRU.

Debbie Oliver, Catherine Beck and Rebecca Breslin, all of whom have had a Spontaneous Coronary Artery Dissection, presented with Dr David Adlam about how they initiated a patient led basicscience project into their condition. Marcin Wozniak gave a presentation on surgical cardiovascular research.

Tom Yates gave an overview of the work of the Diet, Lifestyle and Physical Activity BRU, focusing on the importance of moving more, and positive health benefits to increasing your activity by as little as 2000 steps (20 minutes of walking) per day.

Other lifestyle researchers gave presentations on their specific research projects. PhD student, Jessica Douglas explained the INTAKE study which looks at obesity and whether exercise can affect appetite control. Doug Gould presented the ExTra CKD study looking at combining different types of strength training and aerobic exercise to reduce muscle wasting and improve functional capacity in people with Chronic Kidney Disease. Charlotte Jellyman presented an overview of the phenomena of

HIT (high intensity training) and explored some benefits and risks. Matt McCarthy presented an overview of the relatively new concept of sedentary behaviour, where it has come from, how it increases risk of developing cardiovascular disease and diabetes, and how it could be addressed.

Professor Martin Tobin of the Respiratory BRU presented the EXCEED study which aims to identify genetic, environment and lifestyle factors associated with





health and disease, with a focus on lung disease. Dr Lauren Sherar presented the PhARoaH study looking at physical activity in patients with Chronic Obstructive Pulmonary Disease. Professor Tobin and Dr Sherar told the audience how members of the patient and public involvement group had helped shape their research design and helped write the information sheets for the study.

Paula Wray of the CLARHC wound up proceedings with a talk on the role of patient and public involvement in research.

A panel addressed questions from the public and a number of interesting points were made. Research into the trauma of acute illness was suggested, and recommendations that the hospitals improve their wider practices (specifically encouraging cycling and enforcing the

smoking ban) in line with the research findings. Professor Tobin was invited to the Leicester Clean Air Campaign Group. Unfortunately the panel discussion was interrupted by a fire alarm.

Visitors and speakers enjoyed lunch, visited the exhibition space featuring the NIHR BioResource, each of the

BRUs, HealthWatch and a display on Spontaneous Coronary Artery Dissection. The opportunity to chat with researchers was enjoyed.

The full presentations and pictures from the day can be found on our website and facebook pages

www.leicsrespiratorybru.nihr.ac.uk



## **Health Awareness Days**



#### November 20, 2013

#### World COPD Day

World COPD Day was on the 20 November 2013. World COPD Day is organised by GOLD (the Global Initiative for Chronic Obstructive Lung Disease, www.goldcopd.org), and represents a partnership between health care groups and respiratory educators to raise awareness about chronic obstructive pulmonary disease (COPD).

COPD is a highly prevalent disease, has a large impact on quality of life for patients and their families, and kills millions of people worldwide. Yet perhaps onequarter to one-half of people with clinically significant COPD don't know they have it. Reducing the burden of COPD worldwide depends on identifying

a greater proportion of the people who have developed the disease, and getting them treatment and other help.

The early stages of COPD are often unrecognised, in part because many individuals discount symptoms such as breathlessness, chronic cough, and bringing up phlegm as a normal part of getting older or an expected consequence of cigarette smoking. For people whose breathless is more severe, the knowledge of COPD as an incurable disease may be a frightening prospect that discourages them from seeking a diagnosis and treatment.

However, in people at risk for COPD, a simple, painless test called spirometry (which is a simple breathing test) can help diagnose the disease. Finding COPD early gives the best chance to prevent further lung damage. However, treatments are available to help people at all stages of disease feel better and live a more active life.

The theme of this year's World COPD Day was "It's not too late." This positive message emphasises the meaningful actions people can take to improve their respiratory health, at any stage before or after a COPD diagnosis. The BRU held a stand at the South Entrance of Glenfield Hospital to promote World COPD Day providing information on COPD and research into COPD.

#### www.goldcopd.org



#### **No Smoking Day**

No Smoking Day was on the 12 March 2014. The BRU supported the day by putting up an exhibition stand in the reception area to provide information to patients about stopping smoking.

Stop smoking services offer free local help to anyone who's ready to quit and can be found all over the UK. Smokers that use these services are four times more likely to succeed in quitting.

For more information please visit the NHS website www.nhs.uk/smokefree

Future events that we are taking part in are listed on our website.

## Research Changed My Life

The National Institute for Health Research (NIHR) have launched a campaign called 'Research Changed My Life'. The idea of the campaign is to help patients understand the positive effects that can result from getting involved in clinical research. The 'Research Changed My Life' website includes stories from research patients who have found benefits from taking part in research such as health benefits and understanding their condition better.

One of our research participants, Audrey Keen, 58, spoke to us about her experience of taking part in lung research. Audrey has had asthma for over 20 years. Diagnosed in her mid 30's Audrey's life changed significantly. She started to become wheezy and had a cough. Her asthma became difficult to control so she was referred to the asthma clinic at Glenfield Hospital, Leicester. After a recommendation by her consultant Audrey decided to take part in a clinical trial looking at a different type of asthma medication. That was nearly 20 years ago and Audrey is still taking part in respiratory research studies today! Audrey has taken part in all types of studies over the years, from clinical trials looking at new types of medication to observational studies. She particularly enjoyed a recent study where she had all types of tests such as an MRI scan, breathing tests and a CT scan.



So why does Audrey continue to take part in research? Audrey says that "I always feel better after taking part in research and the care you get whilst taking part in research is excellent. Not to mention that it may eventually help others."

Melanie Mott, 31, is another of our research volunteers. Melanie was diagnosed with severe asthma at the age of 27. At the age of 30 she suffered a life threatening asthma attack that resulted in her walking with a frame and not being able to do anything, which was devastating with two young children. Melanie says that "everyday was challenging. I used to be an active person and this was taken away from me. My life consisted of sitting in a chair and watching life pass me by."





Melanie's consultant at the hospital suggested taking part in research, which she decided to do. Within a year of her severe asthma attack Melanie volunteered to take part in a clinical trial. Since starting the trial Melanie says that she has finally got her life back. "I am exercising, walking my dog and playing with my children. Not being out of breath is amazing." Melanie says that she would definitely recommend taking part in research to others, "if it can benefit me then others in the future can benefit too "



# Research on the road

The BRU have been out and about engaging with the public and promoting the work of the BRU. This has included the 'Celebrating Health Research Fair' event led by the NIHR Collaboration for Applied Health Research and Care (CLAHRC) for Leicestershire, Northamptonshire and Rutland and the Roadshow for NHS Change Day led by University Hospitals of Leicester NHS Trust.

Events such as these help us to:

- showcase the work of the respiratory research teams
- demonstrate how health research can make a real difference
- show different ways of getting involved in health research
- show how to get involved in shaping respiratory research and working with the research teams



# **Biomedical Research Unit**

### **Leicester Respiratory** National Institute for Health Research

# **Open Day** 25 June 2014

Leicester Respiratory Biomedical Research Unit (BRU), Glenfield Hospital, LE3 9QP

Pop in between 4-6.30pm

Please come and visit the respiratory research team. We invite you to walk around the facilities, meet the friendly staff and learn about what we do. Staff will be available to guide you.

The BRU promotes the development of new and effective therapies for the treatment of respiratory diseases including severe asthma and chronic obstructive pulmonary disease.

#### If you would like further information please contact us or visit our website.

NIHR Leicester Respiratory Biomedical Research Unit, Glenfield Hospital, Leicester LE3 9QP

t: 0116 2583370 e: leics.respiratorybru@nhs.net w: www.leicsrespiratorybru.nihr.ac.uk

Find us on:









# **Congratulations to our London Marathoners!**

Sarah Parker, BRU Research Nurse, and Dominic Goold, a medical student undertaking research at the BRU, undertook the massive challenge of the London Marathon on the 09 April 2014.

Sarah was running to support and raise money for the development of the maternity unit at Leicester General Hospital, where a dedicated suite is being built for parents who have delivered stillborn babies. Sarah's

donation page is www.justgiving.com/ saraheparker37

Sarah thoroughly enjoyed her experience of running the London marathon and achieved an excellent time of 4.08.28. Sarah has raised an enormous £2.335 for her charity.

Dom was running for Asthma UK. After spending time in the clinical decisions unit and the paediatric high dependency unit, Dom got to see how severe asthma was affecting adults and children. Dom is currently undertaking research in the BRU into asthma and decided to run for Asthma UK to help raise money for future research. Dom achieved a superb time of 3.39.20 and has currently raised an excellent £700 and is still raising. Dom's donation page is http://uk.virginmoneygiving.com/ **DominicGoold** 

#### Respiratory Research **Database**

The BRU now have a database of volunteers that have registered their interest in taking part in our research. If you are interested in taking part in our research and would like to receive information about research studies you may be suitable for, we will add you to our recruitment database. By signing up to the recruitment database, you are not agreeing to take part in any research, just to receive information about research studies you may be suitable for.

If you would like to register your interest please contact us on 0116 2583370 or visit our website

www.leicsrespiratorybru.nihr.ac.uk



#### Want to receive the newsletter and information on events regularly?

Join our mailing list by emailing leics.respiratorybru@nhs.net or visit our website and complete an online submission form. Our website and facebook pages also have all up to date information.

NIHR Leicester Respiratory Biomedical Research Unit, Glenfield Hospital Groby Road, Leicester LE3 9QP

t: 0116 2583370 e: leics.respiratorybru@nhs.net w: www.leicsrespiratorybru.nihr.ac.uk





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