




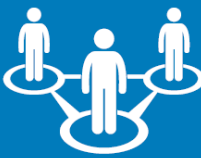


Our Research

NIHR Leicester Biomedical Research Unit (BRC) overview of activities 2017/18

<p>DISCOVERY</p> <p>2 SEMINAL PAPERS IN NATURE GENETICS</p> <p>Biggest genetic association studies of lung function and COPD. Allowing scientists to more accurately 'predict' based on genes and smoking the chance of developing COPD - Tobin and Wain</p>  <p>LARGEST ASTHMA GENETICS STUDY IN THE WORLD</p> <p>Professor Brightling from our Respiratory Theme was a co-author on the National Genetics paper</p> 	<p>BIOMARKERS AND PHENOTYPES</p> <p>INTERNATIONAL STANDARD FOR BREATH ANALYSIS</p> <p>The East Midlands Breathomics Pathology Node (EMBER) has created the world's first breath data repository. It has been designed and is ready to be implemented.</p> <p>Successful demonstration of a joint analysis methodology will be a landmark achievement in the development of an international standard for breath analysis.</p> 	<p>NON-CLINICAL INTERVENTIONS</p> <p>POSITIVE EFFECT OF EXERCISE IN CHRONIC KIDNEY DISEASE (CKD)</p> <p>Smith and Watson from the Lifestyle theme have shown the additive effects of resistance training in patients with non-dialysis chronic kidney disease.</p> <p>The results, published in the American Journal of Physiology-Renal Physiology, should form part of exercise guidelines in this group of patients.</p> 
<p>IMPACT ON PATIENT CARE</p> <p>UK-WIDE DIABETES PREVENTION</p> <p>A successful industry partnership with Ingeus UK is delivering the National Diabetes Prevention Programme (NDPP).</p> <p>The programme content, developed by the team belonging to Professors Davies and Khunti, has won 10 national tenders and had nearly 60,000 participant referrals since 2013.</p> 	<p>MAXIMISING INVESTMENT</p> <p>£5.1m Fashion retailer George Davies gifted £5.15 million to the University of Leicester and Leicester's Hospitals research into peripheral vascular disease (PVD).</p> <p>£400k BRC investigators have been awarded a grant of £400,000 from AstraZeneca Pharmaceuticals to develop a web based program on Cardiometabolic observational Studies.</p> <p>£1.3m Professor Smith has received a philanthropic donation of £1.3M to extend the programme of work for CKD outlined in the BRC lifestyle theme.</p>	<p>NIHR PARTNERSHIPS</p> <p>NEW TRC AND HEALTH ALLIANCE</p> <p>Proposed Translational Research Collaboration (TRC) in nutrition - Building on the collaborative established in 2012. We are working with NOCRI to explore a TRC model including all 8 members of other BRC's nationally.</p> <p>Additionally a new NIHR Midlands Health Alliance has been proposed. Composed of the three Midlands BRCs, Nottingham, Leicester and Birmingham.</p> 

The NIHR Leicester Biomedical Research Centre (BRC) opened in April 2017. It has three themes; research about breathing (respiratory), heart health and diseases (cardiovascular) and how we can live more healthily. It has a fourth theme looking at the chemicals, molecules and genes in the body (precision medicine) that may help explain why two people do not experience the same illness in the same way.

The research helps us to improve how we diagnose people who have health problems, how we identify who

is at risk of getting them, how we prevent people from getting ill, and how we treat people who become ill. The research is very broad, including lab research into genetics and how diseases work, developing education packages, exploring the way physical activity affects the body and testing new medicines and surgical procedures.

The first year of delivery has been a resounding success and our key achievements are shown in the graphics above. Leicester can be proud of its contribution to medical research, which continues to change patient care for the better.